

ORWEL ASTRONOMICAL SOCIETY (IPSWICH)

February, 1975

Editor: Mr. J. Deans,  
[REDACTED],  
CAPEL ST. MARY,  
Nr. Ipswich.  
'Phone GT. WENHAM  
[REDACTED]

SOLAR SECTION:

The Sun: is in the constellation of Capricornus until the 16th when it will cross the border and entre Aquarius.

Rotation No. 1624 commenced Jan 22.73d.

" " commences Feb 19.07d.

Heliographic Co-ordinates as at noon U.T.

	Feb 1	Feb 5	Feb 9	Feb 13	Feb 17	Feb 21	Feb 25
P	-12.2°	-13.8°	-15.3°	-16.7°	-18.1°	-19.3°	-20.5°
Bo	-6.0°	-6.3°	-6.6°	-6.8°	-6.9°	-7.1°	-7.2°
Lo	231.4°	178.7°	126.1°	73.4°	20.7°	328.1°	275.4°

PLANETARY SECTION.

Mercury. will be in inferior conjunction on the 8th at 09h U.T. after which it will become a morning object, it's magnitude has decreased to +1.2 and it is unlikely that you will see it this month.

Venus. is now quite prominent in the S.W. early in the evening setting nearly two hours after the sun. A Crescent Moon will be near Venus in the early evening of the 13th.

Mars. is lurking in the morning twilight mag. +1.5. Mars reaches 41° Western elongation by the end of the month. It will remain in Sagittarius this month.

Jupiter: starts setting quite early in the evening now and it's magnitude has fallen to -1.6. Jupiter moves into Pisces this month. On the evening of the 17th Jupiter will be very close to Venus, the latter mentioned being the lower of the two planets and the brightest at mag. -3.4.

Phenomena of Jupiter's Satellites.

I have had a suggestion to publish some phenomena of Jupiter's satellites so for those who may be interested here are some predictions which should be favourable.

Feb	1st satellite	I TrI	18h56m	Feb	13th satellite	II ShI	15h35m
"	1st	"	IV OcD	"	13th	"	II ShE
"	2nd	"	I OcD	"	17th	"	I TrI
"	3rd	"	III EcR	"	17th	"	I ShI
"	4th	"	II OcD	"	18th	"	I EcR
"	9th	"	I OcD	"	20th	"	II TrI
"	10th	"	I TrE	"	20th	"	II ShI
"	10th	"	I ShI	"	22nd	"	II EcR
"	10th	"	I ShE	"	25th	"	I OcD
"	13th	"	II TrE	"	26th	"	I TrE

TrI = transit ingress      OcD = Occultation disappearance  
 TrE = egress              EcR = Eclipse reappearance  
 ShI = Shadow ingress      ShE = Shadow egress

Saturn.

Still remains in Gemini reaching zero magnitude by the middle of the month and it is now visible throughout most of the night. Saturn will be near a gibbous Moon on the evening of the 22nd.

Saturn Appulse, Jan 11th.

On January 10th at 10minutes to midnight I arrived at the observatory only to find no other soul there, thick cloud overhead and wondering what other mad fool would venture out on such a night. I sat in the car for a while.

Alas, at midnight Nigel Gage arrived with a friend Mark, we stood chatting for a minute then staggered up the spiral stairs to the club room.

A few minutes later Tom Cardot and Mark Howe arrived followed by Charles Radley complete with sleeping bag, crash hat (probably in case of falling space debris), bag of books, etc. etc. and for an hour or so we were all engaged in general conversation.

It had been predicted that the second stage of the Saturn rocket that put Skylab into orbit was due to entre the Earth's atmosphere that evening and we had predictions of three transits. We looked out for the first ransit but due to thick cloud was unable to see a thing.

By about 2 o'clock we dat down to play cards hoping that the clouds would blow away, but as time passed and we ate Nigel's sandwiches, drunk Tom's coffee and Charlie lost more and more rounds of cards to clouds persisted until 3-45am.

Eureka! it was clear. We rushed up to the dome and swung the telescope to

Saturn, there were two objects of about 9th magnitude near Saturn i.e. Titan and something in between Titan and Saturn but it was nowhere as close as it should have been according to the predictions. (I have since verified it as another satellite, Rhea, of about the same magnitude)

Anyhow, David Bearcroft had asked to be telephoned if the weather cleared up, so, we telephoned him and he was on his way to the telescope in a few minutes. By the time Tom and I got back up the dome again it had clouded over. Spode had done it again!

The clouds persisted through till 5a.m. when we decided to quit and call it a night, or you might say early morning. Still the Jupiter appulse will be a lot earlier

#### Jupiter Appulse Feb 14th.

Jupiter will come within 16 seconds of arc of the star SAO 146789 on Feb 14th at 21h48m U.T. The star has a visual magnitude of 7.5. Jupiter will be moving at the rate of about 12 seconds of arc per hour. This event should be quite seen quite easily with a small telescope (Spode permitting) The observatory will be open as normal that Friday evening.

Uranus: is now rising at midnight and will get progressively earlier as the month goes on, it is not a naked eye object being around 6th mag. and it's apparent diameter is not striking. It's geocentric position remains around RA 14h 01m and dec  $-11^{\circ}48'$

Asteroid Eros. has now passed opposition and will gradually start fading from mag 8.0 at the start of the month to mag. 9.3 by the end.

#### Geocentric Co-ordinates for Eros during February.

Feb	1st	7h. 37m	RA	+14 <sup>o</sup> 38'	Dec
"	5th	7h 36m	"	+10 <sup>o</sup> 05'	"
"	9th	7h 36m	"	+ 6 <sup>o</sup> 00'	"
"	13th	7h 37m	"	+ 2 <sup>o</sup> 24'	"
"	17th	7h 39m	"	-0 <sup>o</sup> 43'	"
"	21th	7h 42m	"	-3 <sup>o</sup> 21'	"
"	25th	7h 46m	"	-5 <sup>o</sup> 33'	"
"	27th	7h 48m	"	-6 <sup>o</sup> 31'	"

#### Lunar Section.

##### Moon Phases.

	New Moon	Feb 11th	05h 17m U.T.
	First Quarter	" 19th	07h 39m U.T.
Lunation 645	Full Moon	" 26th	01h 15m U.T.
	Last Quarter	March 4th	20h 20m U.T.

Apogee Feb 12th 04h U.T. Perigee 25th 22h U.T.

At the start of the new year the Lunar and planetary section altered the sequence of it's Friday evening every 14days to coincide with First and Last quaters as opposed to Full Moon or New Moon. It is hoped that this will give us more opportunity to do some useful Lunar observations.

#### Occultations.

	Feb	19th	19h 19.8m U.T.	53 Tau	Mag 5.4 D
	"	19th	20h 15.8m U.T.	219B Tau	" 5.9 D
**	"	19th	20h 46.1m U.T.	224B Tau	" 6.1 D
	"	19th	21h 19.5m U.T.	227B Tau	" 5.9 D
**	"	22nd	0h 57.5m U.T.	V Gem	" 4.1 D
	"	22nd	21h 44.5m U.T.	143B Gem	" 6.8 D
	"	23rd	02h 10.0m U.T.	162B Gem	" 5.6 D
	"	24th	02h 46.7m U.T.	84B Cnc	" 6.4 D
	"	27th	04h 55.7m U.T.	87 Leo	" 5.1 R

\*\* denotes stars are double.

Meteor Section Director.

Unfortunately this month there are no spectacular meteor showers to observe. A very interesting point was raised at the A.G.M. when it was suggested that the Society set up an all sky camera to photograph the complete sky by using long overnight exposures using a fisheye lens.

The device would automatically adjust itself to the light intensity and change the exposure each day. The most expensive part of this device would be the lens itself which was estimated at £25 - £30. The camera could be made from timber and the necessary photo-electric cell, relay and solenoid, etc. for automatic action would all be built into the camera and run off batteries.

Anyone interested in furthering this suggestion please contact the Meteor Section Director, Mr. S. Flory, C. Radley or myself (Ed)

STAMPED ADDRESSED ENVELOPES IMPORTANT PLEASE NOTE.

If you live outside of Ipswich please send a supply of foolscap stamped addressed envelopes in order to receive your copy of the monthly Journal. Also if the postage charges increase in the near future please send some stamps to cover the difference. Those members who live in Ipswich are fortunate in as much as they receive personal delivery by a committee member, this does not cost the Society any money from the funds, as does postage if you have not provided S.A.E.s. So please take note and send S.A.E.s. to Mr. R.M. Cheesman, Ipswich, if you wish to continue receiving the Journal. If in doubt about whether you should send S.A.E.s please contact Mr. Cheesman at the above address. If you have already provided S.A.E.s please ignore this request.

Spodes Law.

'In any given set of circumstances that which can go wrong will go wrong, invariably at the most inopportune moment.'

Double Star Notes. by Mr. D. Bearcroft

Well, here we are again at the start of a new year and perhaps now is the time to review progress of my Double Star Section to date.

As yet, we have not discovered any fresh doubles whilst sober, but we have observed a fine cross section of types of double stars, as my nights have been blessed in the main by good viewing conditions.

We have pushed the telescope to its limit in theory but have been hampered in this direction by the eyepieces available and feel that a set of new higher powered eyepieces would open pastures new and a special eyepiece with cross-hairs would enable us to measure position angle and estimate the apparent separation.

We saw the old year out with a fine session, working our way around one of my favourite patches of the sky, namely, the Orion complex.

I attended the Quadrantids Meteor count on January 4th and as usual the weather was against us. But we managed to puzzle one of our older 'members' Charlie Radley by retiring to the gorse bushes when we heard his motorbike approaching. When he arrived on the scene there were four 'abandoned' cars, cameras and telescopes set up, and not a soul to be seen.

After riding around the cars several times, Charlie walked this way and that way yelling "I can see you boys!" until he walked over one of us after tracking us down by our heavy breathing and suppressed giggles.

After lamenting on the weather we retired to the local pub. Here's hoping for clear skies in '75 and hoping to see a few more of you on my nights in the future.

D.R. Bearcroft.

New Members.

We welcome the following new members of the Society.

Mr. C.R. Munford, F.R.A.S. Ipswich.

Mr. Noel Glover, Felixstowe.

Mr. & Mrs. R. Markham, Ipswich

Mr. J. Mason, Ipswich.

Mr. & Mrs. Fortescue, & Louis, Ipswich.

Radio & T.V. Programmes of Interest, by C. Radley.

Here are some radio and T.V. programmes which members might be interested in:

T.V.

'The Sky at Night' presented by Patrick Moore, about once a month, midweek late in the evenings, sometimes repeated at lunchtimes on B.B.C. 1. The only regular astronomy programmes.

Cont.

Other T.V. programmes after a scientific flavour and sometimes including astronomy are:-

B.B.C.1. 'Tomorrows World' at 7.p.m. on Thursdays.

B.B.C.2. 'Horizon' on Mondays at 9.15p.m.

Other series worth looking out for is the B.B.C.1. T.V. 'Burke Special', which is not on at the moment.

#### RADIO:

'Science Now' alternate Tuesday evenings on B.B.C. Radio 3, each programme is devoted to one topic which is occassionally astronomy.

'Scientifically Speaking' at 11.30a.m. on Saturdays B.B.C. Radio 4. Each programme covers several topics, often includes and interview with Dr. Simon Mitton from Cambridge and is on astronomical subjects.

Radio Moscow's English service has a regular feature called 'Science and Technology' and the news bullitins often gives announcements about current spaceflights. Moscow can be picked up on Short Wave, for details of frequencies and times please contact me.

#### RADIO IPSWICH.

Radio Ipswich will be on the air in a year's time and the O.A.S.I. hopes to have a short programme about local astronomy broadcast regularly

C. Radley.

#### Forthcoming Events.

Chelmsford & District Astronomical Society are holding a lecture on Tuesday 25th February at the Shire Hall, Chelmsford. The subject of the Lecture which will start at 7.30p.m. is entitled 'BLACK HOLES' and will be given by Prof. John Taylor of Kings College London.

Admission is by ticked costing 20p. Anyone wishing to go should contact, by 10th Feb., Miss. C.C. Puddick, Hon. Sec. Chelmsford & District Astronomical Society, [REDACTED], Burnham on Crouch, Essex. If enough members are interested please contact Mr. R.M. Cheesman, [REDACTED] Ipswich and we might be able to organise a trip to the lecture.

#### O.S.C.A.R.

An illustrated talk and demonstration by Patrick Gowen of the University of East Anglia at the Friends Meeting House in Ipswich on Friday 7th February at 8.00p.m. Mr. Gowen is hoping to tune into the O.S.C.A.R. satellite to transmit and receive messages to and from various parts of the world.

Please detach and display the poster advertising the meeting somewhere prominent. Extra posters can be obtained from Mr. R.M. Cheesman.

#### Articles in the Journal.

If you wish to insert an article in the Journal or if you wish to hold an observational evening at your home and invite other members or would like to know of other members living near you please write to me (Editor)

#### Nebular & Faint Object Section, Director Mr. M. Stow.

Please note that Mr. Stow will be holding an extra evening at the Observatory during February. It will be on Tuesday 11th Feb starting at 7.30p.m. This date is not included on the month's programme as it had already been printed.

Minutes of the Annual General Meeting held on 3rd Jan, 1975.

Apologies were received from Dr. S.G.C. Harrison.

The minutes of the last A.G.M. were read and Mr. S. Flory proposed that they should be adopted, and Mr. D. Bearcroft seconded their adoption.

The Chairman, Mr. R.M. Cheesman, opened the meeting by giving an account of the progress of the Society during 1974. He mentioned that the observatory had been opened more times in 1974 than during previous years since the Society have been at Orwell Park. During the year many lectures had been organized by the Society and had been well attended both by our members but also by the general public. Many clubs and societies from Ipswich and surrounding areas had visited the observatory and our Society in turn had visited Mullard Radio Observatory and the Institute of Cambridge Optical Observatories. Many new sections of astronomical studies had been started by our Society, which included Meteor counts and occultations. The directors of the Society's sections had done a great deal of useful work and the sections had been well attended by members. The Chairman then thanked the committee for their help during the year.

The Secretary, Mr. P. Carroll, then gave his report for 1974: He stated that the membership of the Society was still about 70 and the majority of the members were playing their part in the Society's activities. The trip to Cambridge was very successful and was very educational and interesting. At the beginning of the year the Junior Astronomical Society held their meeting at Orwell Park which was a great success. During September the Society opened the Observatory again for the annual Open Day which was attended by over 200 people which helped to increase the Society's funds and membership. In December the Lunar Section of the British Astronomical Society held their provisional meeting at Orwell Park School and the lecture given by Patrick Moore in the evening at Copleston Road School was attended by about 500 people. During the year a lot of valuable work had been done by the Society and the observatory was opened 179 times, which was a record for the Society. During the year local organizations had visited the observatory and several lectures had been given by the members of our Society.

In the autumn the Society had purchased a new eyepiece and had ordered from Germany a new star atlas which shows stars up to the 14th magnitude. The Federation of Astronomical Societies had enabled us to communicate with other societies throughout the U.K.. During the year the committee meetings organized at the Chairman's house had been well attended and a lot of useful and hard work had been done. The minutes of the committee meetings had been removed from the Journal because of the difficulty of the paper shortage and cost, but any member wishing to read the minutes of the committee meetings should apply to the Secretary.

Mr. Carroll concluded by thanking the Chairman for his hard work for the Society during the last year.

The Treasurer, Mr. G. Collier, then gave his report for 1974.

The accounts for 1974 show an excess income over expenditure of about £166. During the year £44 was spent on paper for the printing of the Journal (£12 of this amount was an outstanding bill for 1973) Other expenses were £13 spent on repairs, £15 on insurance. These three items were the biggest expenses incurred by the Society. At the Open Day held during September approx £50 was made towards the Society's funds. The Treasurer told the meeting that the Society was in a sound financial position but a lot of repair work still had to be done to the observatory. During the year one of the dome wheels had been removed by Mr. Cheesman and Mr. D. Brown for repairs to its bearings and axle, this had cost the Society £7 for repairs by one of the local garages. The lectures organized by the Society had cost us about £1 after we had taken the expenses away from the donations received at the lectures. The Chairman had donated about £15 to the Society from fees he was given for lectures he had given during 1974.

ELECTION OF OFFICERS.

As the Secretary, Mr. P. Carroll, would be going to University later in the year another member had to be nominated to stand on the council and a secretary nominated.

The Secretary had received from Mr. D. Barnard, seconded by Mr. D. Bearcroft that Mr. T. Cardot should stand on the council. The Secretary called for other nominations. No more nominations were received.

The Secretary called for nominations for Chairman. Mr. D. Brown nominated Mr. R.M. Cheesman to remain as Chairman and the nomination was seconded by Mr. M. Stow. As there were no other nominations, the nomination that Mr. Cheesman remain as Chairman for 1975 was put to the meeting for a vote and Mr. Cheesman was voted unanimously to remain as Chairman.

Mr. T. Cardot was voted onto the committee for 1975 and Mr. M. Stow was voted to be Secretary for 1975. To Save time the Chairman asked if the remaining members of the committee could be voted on block to stand again for 1975. As there were no objections, the committee was voted back into office.

The committee for 1975 is:

Mr. R.M. Cheesman,	(Chairman)
Mr. M. Stow	(Secretary)
Mr. G. Collier	(Treasurer)
Mr. J. Deans	(Editor)
Mr. D. Bearcroft.	
Mr. V. Wilkes	
Mr. T. Cardot	
Mr. P. Carroll	(Assist. Sec. until Sept 1975)

The Chairman, Mr. R.M. Cheesman, then gave his proposals for 1975. He hoped that more serious work could be done with the Orwell Park Telescope during 1975. Also lectures were planned for the coming year and it was hoped that another Open Day could be held on Sat. 27th September, 1975. Also it was hoped that more visits could be made to other places of astronomical interest and that more people would participate in the outside activities of the Society such as occultations and at the Meteor Counts.

The Chairman stated that he had received that day a draft lease for the use of the Orwell Park Telescope and asked Mr. N.C. Shute to explain roughly what was involved.

Mr. Shute stated that the lease embodied nearly all the things proposed by him and Mr. Cheesman when they went to see the School's solicitor but one or two items in the lease had to be sorted out and as he had only received the draft lease that day he had been unable to study it properly. Mr. Shute proposed that the committee should be given the authority to sign the lease when they were satisfied that the terms were acceptable. This was agreed. One point the Chairman rose was that when he, together with Mr. Shute had seen the School's solicitor no rent had been agreed but in the draft lease a figure of £50 rent per annum was stated. Mr. Shute said that this would be gone into further and it was hoped that this amount would be reduced.

Under any other business Mr. T. Cardot proposed that an entrance fee be charged from 1st January, 1976, this was seconded by Mr. C. Radle. The suggestion was put to the vote. The motion was that the Society charge an entrance fee (amount to be discussed and authorized at a committee meeting) chargeable from the 1st January 1975. The motion was carried by 17 votes for and 7 against. (This is an entrance fee for new members joining the Society)

Mr. G. Collier proposed that the membership fee for students should be at the Junior rate, this was seconded by Mr. V. Wilkes. The motion was put to the vote and carried unanimously. This new rate was to take effect with immediate effect.

It was also proposed that from 1st January, 1976 all new members should be proposed by a full member of the society and the nomination would be put to the Committee for authorisation.

Mr. G. Collier proposed that with the ever increasing costs of running the Society, together with the rent of the observatory, that subscription rates should be increased by 50% as from 1st January, 1976. Mr. C. Shute seconded the motion and after a long debate the motion was put to the meeting and was carried unanimously.

As there was no other business the Chairman called to the meeting to a close.  
Next committee meeting at Chairman's house 3rd Feb, 75 at 8p.m.

PROGRAMME FOR FEBRUARY, 1975.

TUESDAYS: from 8p.m. Double Stars Section.

Director: Mr. D. Bearcroft, [redacted], Ipswich, Tel: [redacted]

4th February  
18th "

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

Directors. Mr. R.M. Cheesman, [redacted], Ipswich.

5th February  
12th "  
26th "

from 8.30p.m.

19th February

THURSDAYS: from 9.00p.m. Variable Stars Section.

Director: Mr. T. Cardot, [redacted], Ipswich, 'Phone [redacted]

assist. " Mr. D. Barnard, [redacted], Ipswich, 'Phone [redacted]

30th January  
6th February  
13th "  
20th "  
27th "

FRIDAYS: from 7.30p.m. Lunar & Planetary Section.

Directors. Mr. J. Deans, [redacted], Capel St. Mary

'Phone GT. WENHAM [redacted]

assist. Director. Mr. K. Dye, [redacted], Ipswich, 'Phone [redacted]

14th February  
28th "

FRIDAYS: from 7.30p.m. Nebular & Faint Objects Section.

Director. Mr. M. Stow, [redacted], Ipswich.

assist. Director Mr. R. Hazelwood, [redacted], Ipswich,  
'phone [redacted]

21st February.

\*\*\*\* FRIDAY 7th February. Lecture on O.S.C.A.R. (Orbital Satellite carrying  
amateur Radio)

by Mr. Patrick Gowen, at the Friends Meeting House,  
Fonnereau Road,  
Ipswich.

The Lecture will commence at 8.p.m. and it is hoped to communicate via the  
O.S.C.A.R. satellite to other radio stations and amateur radio stations  
in other parts of the world.

(Will members please come at 7.p.m. to help to set up the radio  
aerials etc.)

Monday 3rd February, Committee Meeting at the Chairman's house at 8p.m.  
Committee Members only please.



ORWELL ASTRONOMICAL SOCIETY, IPSWICH.

presents

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O. S. C. A. R.

(orbital satellite carrying amateur radio)

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An illustrated talk and actual demonstration

via the satellite

(Conditions Permitting)

by

PATRICK GOWEN

of the University of East Anglia

at

The Friends Meeting House

FonnerEAU Road, Ipswich

on

FRIDAY 7<sup>th</sup> FEBRUARY, 1975 at 8p.m.

ADMISSION FREE

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