

JOURNAL of the
ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

January, 1975.

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

SOLAR SECTION.

The Sun: will be in the constellation of Sagittarius until the 19th when it will cross the border into Capricornus.

Rotation No. 1623 commenced Dec 26.40d.
" 1624 commences Jan 22.73d.

Heliographic Co-ordinates as at Noon U.T.

	Jan 4th	Jan 8th	Jan 12th	Jan 16th	Jan 20th	Jan 24th	Jan 28th
P	+0.6°	-1.3°	-3.2°	-5.1°	-7.6°	-8.8°	-16.5°
Bo	-3.4°	-3.8°	-4.3°	-4.7°	-5.1°	-5.4°	-5.8°
Lo	240.1°	187.4°	134.7°	82.1°	29.4°	336.7°	284.1°

Last month we saw the Bo co-ordinate prefix change from positive to negative indicating the Sun's South pole was pointing towards us. This month the P (Positive angle) of the Sun's axis changes, the North pole, although pointing away from us, will also be West of the hour circle.

PLANETARY SECTION.

Mercury. Is an evening star in the constellation of Capricornus reaching greatest eastern elongation (19°) on the 23rd at 20hrs U.T. when it will be mag, -0.4 and setting over an hour and a half after the sun. Perihelion occurs on Jan 28th.

Venus. Is also an evening star in Capricornus mag -3.4 and on the 23rd will also be at (19°) elongation and very close to Mercury, Venus being the brighter of the two planets. A crescent Moon will be near both planets on the evening of the 13th.

Earth. Perihelion occurs on January 2nd at 13h U.T.

Mars. Is a morning star in Ophiuchus moving into Sagittarius later in the month, Mars rises at 6h 30m U.T. at the beginning of the month and at 5h U.T. by the end, magnitude +1.7

Jupiter. Is still an evening star, unmistakable in Aquarius, mag -1.7. Jupiter is starting to set around 21h U.T. by mid January. The Moon will be near Jupiter on the 17th.

A NEW SATELLITE OF JUPITER XIII was discovered by Charles Kowal on photographic plates taken at the beginning of September using the 48" Schmidt telescope at Mount Palomar. This brings the total number of satellites of Jupiter to thirteen. A preliminary orbit has been given of 282 days, with a distance of about 0.08 A.U. from Jupiter, magnitude 20. Speaking to Patrick Moore about this new satellite he reckoned it was probably another captured asteroid.

Saturn. Can be found in Gemini, mag -0.2. Opposition occurs on Jan 6th at 09U.T. A gibbous Moon will be 3° South of Saturn on the 26th at 03hs U.T.

Saturn Appulse. On January the 11th in the early hours of the morning at 04hrs 42mins U.T. To be precise, there will be a planetary appulse involving Saturn and the star SAO 79057 which is 9th magnitude. Saturn, which at mean opposition has an outer ring diameter of 43.96 seconds of arc, will come within 2.1 seconds of arc of the star which is very close. Saturn will be moving at a rate of 5 arc seconds per hour. The observatory will be opened up especially for this event from midnight on Friday 10th January. Do try to make it, providing Spode does not intervene for it should be very interesting. If you do come along, wrap up well, bring a Thermosflask of hot coffee and ABOVE ALL please be as quiet as possible.

Uranus: is a morning star in Virgo about 6th magnitude rising at 1hr40m on Jan 11th. Why not come along on the morning of the Saturn appulse and look at Uranus with the 10" O.G.?

Geocentric co-ordinates for Uranus in January,

		R.A.	Dec.
January	1st	13h 59m	-11°36'
"	5th	14h 00m	-11°39'
"	11th	14h 00m	-11°43'
"	15th	14h 01m	-11°44'
"	20th	14h 01m	-11°46'
"	25th	14h 01m	-11°47'
"	30th	14h 01m	-11°48'

Asteroid Eros is moving due South in Lynx at the rate of about 3 arc minutes per hour, mag 8.6 increasing to 7.8 at opposition on the 23rd Jan. Eros moves into Gemini on 15th Jan when it passes 45' east of Pi Geminorum (Mag 5.1) on the 16th at 16hrs W.T. and 20° East of Pollux (1.1) on the 21st at 3hrs U.T. The most spectacular event will be on the 24th at 0.5 hrs U.T. when Eros will be only 0'.3 west of Kappa Geminorum as seen from the centre of the Earth and we may see an occultation. If we do not see an occultation we may see perhaps a grazing planetary occultation or the two merge into one because of the resolving power of the telescope. If it does occult Kappa Gem. we should see the combined light fade to 8th mag. that of Eros alone then after a few seconds Kappa Gem. popping back to mag 3.6.

On the 12th January we will pass through the plain of Eros' equator and since Eros is banana shaped we will be able to see a variation of 1½ mags in the brightness of Eros. The interval between max and min is 2hours 38 minutes.

Geocentric Co-ordinates for Eros during January.

		R.A.	Dec.
January	2nd	8h 01m	+47°20'
"	6th	7h 58m	+44°18'
"	10th	7h 54m	+40°43'
"	14th	7h 50m	+36°35'
"	18th	7h 46m	+31°59'
"	22nd	7h 43m	+27°04'
"	26th	7h 40m	+22°01'
"	30th	7h 38m	+17°02'

LUNAR SECTION.Moon Phases.

Lunation 644	New Moon	January 12th	10hrs 20m U.T.
	1st Quarter	" 20th	15hrs 14m U.T.
	Full Moon	" 27th	15hrs 09m U.T.
	Last Quarter	Feb 3rd	06hrs 23m U.T.

Apogee Jan 15th 21hrs U.T. Perigee Jan 28th 09hrs U.T.

Occultations.

* Jan 1st	03h 32.3m U.T.	Omega Leo	Mag 5.5	R
* " 2nd	04h 42.5m U.T.	SAO 118314	" 7.2	R
" 3rd	01h 18.2m U.T.	SAO 138079	" 6.9	R
" 4th	01h07.0m U.T.	SAO 138594	" 7.0	R
" 17th	19h 07.6m U.T.	16 Psc	" 5.6	D
" 20th	22h 28.4m U.T.	ZC 297	" 6.8	D
" 21st	23h 34.9m U.T.	45 Ari	" 5.9	D
" 21st	24h 02.3m U.T.	Rho Ari	" 5.6	D
" 23rd	23h 01.7m U.T.	ZC 725	" 6.9	D
" 24th	16h 49.6m U.T.	Zeta Tau	" 3.0	D
" 24th	17h 24.0m U.T.	" "	" 3.0	R
" 30th	0h 20.6m U.T.	237B Leo	" 6.3	R
* " 30th	2h 12.3m U.T.	55 Leo	" 6.0	R

* denotes star is a double.

Jan 1st	Omega Leo	mag 6.0, 6.7	0.7" separation
" 2nd	SAO 118314	" 7.4, 8.9	0.8" "
" 30th	55 Leo	- sorry	no information on this one.

B.A.A. Lunar Section Meeting At Orwell Park.

A provincial meeting of the B.A.A. Lunar Section took place at Orwell Park on 7th December, 1974 and a most enlightening and enjoyable afternoon was had by all who attended.

Prior to the meeting Patrick Moore, Commander Hatfield and a few others inspected the telescope and observatory and were suitably impressed with what they saw, so much so, that at one stage Patrick jokingly asked Royston Cheesman if the telescope was for sale so that he could add it to his collection of telescopes. But Commander Hatfield was determined to out bid Patrick if it had been for sale.

The meeting got underway around 2-30p.m. and Patrick after a brief chat asked if there was anyone willing to take notes. It seemed that nobody rated their chances of taking notes at 200 words per minute so Patrick decided to take the notes, with Commander Hatfield chairing the first half of the meeting.

First to speak was our Chairman, Royston Cheesman, who welcomed on behalf of the O.A.S.I. all those who had turned up for the meeting, this followed with a historical account of how the observatory and telescope came into being; how it had been built and used by Col. Tomlin, then falling into disuse and mis-use until the telescope and observatory was restored to its present grandure by the Society.

There then followed a descriptive talk by one of the B.A.A. members, Mr. Good, about outline maps of the Lunar surface which were prepared from photographic material. The maps so far produced were being used by Mills Observatory at Dundee for recording T.L.P.s.

Next to talk was Mr. Ellis speaking about C.E.D. the unsuitability of the Kodak No. 3 step tablet and the new neutral density filters being employed instead for this work. It was seen how these were mounted on a revolving disc.

The meeting was then adjourned for refreshments. When the meeting resumed R.M. Cheesman took the chair and invited Commander Hatfield to show some slides of his observatory at different stages of construction and described in detail how the telescope was constructed. This talk was followed by Mr. REg. Spry who shew slides of various amateur observatories, including those built by Patrick Moore. At 5.30p.m. the meeting was closed by Patrick Moore.

It was later learned that one poor old soul had been accidentally looked in the observatory tower all afternoon and missed the afternoon meeting. He had turned the lights on and opened the dome shutter to attract attention, fortunately someone noticed, was it really Charlie who looked the door?

Evening lecture at Copleston School.

Coplestone School Hall was packed to capacity (max seating 530) for the evening lecture entitled 'Into Space' and Patrick in his own inimitable manner spoke to an entranced audience for no less than 1 hour 10 minutes non-stop.

His humourous tales, accompanied with slides depicting ~~mans~~ early attempts to venture into space never ceased to amaze and capture the imagination.

The evening was undoubtedly an overwhelming success.

Comet Bennett 1974h.

A B.A.A. circular was recieved on 30th November indicating that a new comet had been discovered on Nov 12th by J.C. Bennett observing from Pretoria, it was diffuse and 9th mag. in the constellation of Hydra.

The Comet came above -38° declination on 12th Dec and so is now visible in the northern hemisphere. Here is the very latest information on the Comet.

	R.A.	Dec.	Mag.
3rd Jan	22h 43.04m	+02 ^o 49.2'	12.3
8th "	22h 44.46m	+05 ^o 41'4	12.8
13th "	22h 45.81m	+07 ^o 53'8	13.3
18th "	22h 47.19m	+09 ^o 41'.2	13.8

Comet Bennett reaches perihelion on 1 st Dec.1974, it has now become large and difuse with the central condensation weakening.

Meteor Observation Section.

From 1st Jan to about the 6th Jan are the normal limits of the Quadrantids, this shower is supposed to possess blue meteors with fine trails, it is very rich in faint meteors but is reckoned to be rather unfavourable. Maximum is given as Jan 4th 04h 3m and the Zenith hourly rate at max 110. The radiant transits the meridian at 08h 35m U.T. and will not gain much altitude before dawn.

Variable Stars:

The following figures have been given by Mr. T. Cardot, director of our Variable Star Section together with those computed by Mr. D. Barnard.

TC = T. Cardot.

DB = D. Barnard.

V 360 Cgy	14th Nov.	10.48 (DB)	
R Sct	3rd Nove	5.94 (TC)	
AG Peg	3rd Nov	8.42, (TC)	26th Nov 8.42 (TC)
GO peg	3rd Nov	8.00 (TC)	
Aq And	3rd Nov	8.51 (TC)	

Double Star Notes by D. Bearcroft:

Well dear readers, after my last attempt at double star notes, it was recieved favourable by my fans and he urged me on to write a fresh set for your (or his?) perusal.

What a fine action packed month this has been, the high spot must be the visit by Patrick Moore and his band of B.A.A. Lunar Men. Patrick Moore and Commander Hatfield were very impressed with our 10" monster at Orwell Park and were heard plotting its removal to Selsey. But we managed to convince them that our need of it was greater than theirs. Patrick and Henry were both agreed that we had a fine instrument and were lucky to have the use of it. The B.A.A. meeting in the afternoon was very interesting and the debates were both learned and lively and opened my eyes to the problems of the serious Lunar observer.

Tea was dispensed by Mr. David Brown and his harem, in the fine study next to the hall. I could not help wondering what Col. Tomlin would have made of it all, one hundred and two years on, that his telescope and ballroom were still being used in the persuit of knowledge and pleasure of astronomy.

However, I was brought down to earth with a bump and a surge of blue pullovered boys from the school swept forward when Patrick offered to sign autographs. It fell to Roy Cheesman and myself to take Patrick and company to dinner at the Crown and Anchor Hotel, but we felt like monkeys in the zoo at feeding time because everybody was looking at our table. After a pleasnat meal, it was time to make a dash to Copleston School for the Evening Lecture. My private horrors of an empty hall was fortunately not realized, and after an introduction from our Chairman, Royston Cheesman, Patrick lectured for over an hour to a packed hall.

The talk was a great success and it must have done a lot for the public standing of our Society. Patrick again signed autographs after the lecture. After signing about two-hunded slips of paper, autograph books, astronomical looks (and altering a lot of the contense of them) before having coffee with Miss Beeson, Headmistress of Copleston School. At about 9.30pm. after cursing the clouds and not being able to go back to our observatory to look through the telescope, he started his long trek home to Selsey.

Still, back to my own efforts. On the 10th December, in the company of D. Bearcroft and T. Cardot we had a good look in. To be more accurate, look at Jupiter, Saturn before turning to the Twins of Castor and Pollux. We split Castor into its two components, no mean feat this, as this object is getting towards the limits even of the 10".

On the 14th December we attened a meteor count but Spode intervened so we beat a retreat to the local pub were we taked about the phisics of the universe, (and playing a round of darts) At closing time the clouds were still thick so we gave up and went home.

I went to R.J.M. Cheesman's night and came to gripss with the famous Crab Nebular.

Well, by the time you read this (if you have even got this far!), Christmas will be passed so hoping you had a pleasant time and look forward to seeing a few new pair of eyes at my Double Star Section Nights.

D. Bearcroft.

Forthcoming Events;

Annual General Meeting of the Society on Friday 3rd January at 8p.m. in the Library of Orwell Park School.

Lecture on Satellite Communication.

On Friday 7th February at 8p.m at the Friends Meeting House, Fonnerau Road Ipswich, Mr. Patrick Gowen will give an illustrated lecture on artificial radio satellites and it is hoped that he will be able to send and receive radio messages from OSCAR VI satellite

Subscriptions: Just a reminder that all membership subscriptions became due on 1st January, 1975 and should be sent to the Treasurer, Mr. G. Collier,

Church Street,
CHELMONDISTON,
Nr. Ipswich.

PROGRAMME FOR JANUARY, 1975

MONDAYS: from 7.30p.m. Weather Permitting. General Observation Period.

Directors: Mr. G. Collier, [REDACTED] Church St. Chelmondiston,
'Phone Woolverstone [REDACTED]
and Mr. P. Carroll, [REDACTED], Ipswich.

6th January,
20th "

TUESDAYS: from 8.00p.m. Double Stars Section.

Director.: Mr. D. Bearcroft, [REDACTED], Ipswich, 'Phone [REDACTED]

7th January,
21st "

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

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

8th January,
15th "
29th "

from 8.30p.m.

1st January
22nd "

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

Directors: Mr. T. Cardot, [REDACTED], Ipswich, 'Phone [REDACTED]
and Mr. D. Barnard, [REDACTED], Ipswich 'Phone [REDACTED]

2nd January
9th "
16th "
23rd "
30th "

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

Directors: Mr. J. Deans, [REDACTED], Capel St. Mary 'Phone Gt. Wenham
and Mr. K. Dye, [REDACTED], Ipswich, 'Phone [REDACTED]

17th January,
31st "

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

Directors: Mr. M. Stow, [REDACTED], Ipswich
and Mr. R. Hazelwood, [REDACTED], Ipswich, 'Phone [REDACTED]

10th January,
24th "

FRIDAY 3rd JANUARY AT 8P.M. The Annual General Meeting of the Society will be held in the Library at Orwell Park School, Nacton.

FRIDAY 10th January from Midnight. Planetary Section

Director. J. Deans, [REDACTED], Capel St. Mary, Phone Gt. Wenham

Observatory being opened up to observe the Saturn Appulsé. Also we will be looking for Eros and at other parts of the galaxy.