

JOURNAL of the  
ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

November, 1974.

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"What's Up?". The Solar System as seen from Ipswich (November '74).

The Sun: This month the Sun will be in the constellation of Libra. It will enter Scorpius towards the end of the month.

Rotation No. 1620 commenced Oct. 5 .47d  
" " 1621 commences Nov. 1 .76d  
" " 1622 " Nov.29 .07d

Heliographic Co-ordinates as at noon U.T.

	<u>Nov.1</u>	<u>Nov.5</u>	<u>Nov.9</u>	<u>Nov.13</u>
P	+24.5°	-23.8°	+22.9°	-21.9°
BO	+4.3°	+3.9°	+3.5°	+3.0°
LO	3.5°	310.7°	258.0°	205.3°
	<u>Nov.17</u>	<u>Nov.21</u>	<u>Nov.25</u>	<u>Nov.29</u>
P	-20.8°	+19.6°	+18.3°	+16.8°
BO	+2.6°	+2.1°	+1.6°	+1.1°
LO	152.5°	99.8°	47.1°	354.4°

PLANETARY SECTION

Mercury: Is a morning star of magnitude 0.5 at the beginning of the month increasing in brightness to magnitude -0.6 by the end of the month. The planet will be visible in the South East in the constellation of Virgo and Libra about the middle of the month. Greatest western elongation (19°) occurs on the 10th at 12h U.T. The planet will have risen some 2 hrs. before Sunrise. On the morning of the 12th a crescent Moon will be near Mercury.

Venus: Will be in the constellation of Virgo at the start of the month unsuitably placed for observation, superior conjunction occurring on the 6th at 13h U.T.

Mars: Will be in the constellation of Virgo at the beginning of the month entering Libra about the middle of the month. Mars also is unsuitably placed for observation. Mercury will be 1°.1 N of Mars on the 24th at 21h U.T. but this will not be of course observable from Ipswich.

Jupiter: Is an evening object mag. -2.1 in the constellation of Aquarius. On the evening of the 22nd at 23h U.T. Jupiter will be in conjunction with the Moon. The Gibbons Moon will be passing 7° N of the planet around Moonset. The Red Spot is still conspicuous in the South Tropical Zone and can clearly be seen with the 10" O.G.

Io Week: November 6th - 16th will be 10 days set aside for International study of Io, one of the innermost Gallilean Satellites of Jupiter, Io has revealed a procession of enigmatic behaviours to observers using radio, infra red and optical equipment. Most of these strange behaviours are sporadic and this is why sets of synoptic observations are required on an international scale to correlate information and try and attain a broader understanding of conditions on Io. Occasionally Io will appear brighter after emergence from solar eclipse. Other reports have indicated that the Gallilean satellites show distinct characteristics during transit, Europa being light coloured, Callisto particularly dark.

For observers using optical telescopes the limit to which they can participate seems a little restricted. Magnitude measurements could be made using a step tablet to constantly monitor the magnitude of Io throughout its orbit. Different steps will be necessary depending on aperture of instrument used but the degree of variation in steps is the important factor.

For those who may be interested in participating or even just following the orbits of Io, here is some information to enable you to keep track of Io during "Io Week".

Configurations of Satellites as at 22 hrs. U.T.

Nov. 6th	432J1	The letters E, O, T prefixing the
" 7th	43LJE2	satellite denote that it is either
" 8th	43LJ2	in eclipse, occultation or transit.
" 9th	2JO413	J Jupiter
" 10th	21J43	satellite 1 Io
" 11th	J1234	" 2 Europa
" 12th	1J324	" 3 Ganymede
" 13th	32J14	" 4 Callisto
" 14th	3102J4	
" 15th	3JT124	NB: Configurations will be
" 16th	2J134	reversed in an astronomical
		telescope.

Phenomena of Io.

Nov. 7th	0h 50m U.T.	Transit ingress.
" 7th	22h 07m U.T.	Occultation disappearance.
" 8th	19h 18m U.T.	Transit ingress.
" 8th	20h 33m U.T.	Shadow ingress.
" 8th	21h 35m U.T.	Transit egress.
" 8th	22h 49m U.T.	Shadow egress.
" 9th	16h 34m U.T.	Occultation disappearance.
" 9th	20h 05m U.T.	Eclipse reappearance.
" 10th	16h 03m U.T.	Transit egress.
" 10th	17h 18m U.T.	Shadow egress.
" 14th	23h 59m U.T.	Occultation disappearance.
" 15th	21h 11m U.T.	Transit ingress.
" 15th	22h 29m U.T.	Shadow ingress.
" 15th	23h 27m U.T.	Transit egress.
" 16th	0h 45m U.T.	Shadow egress.
" 16th	19h 27m U.T.	Occultation disappearance.
" 16th	22h 00m U.T.	Eclipse reappearance.

Saturn: Rises mid-evening and can be found in the constellation of Gemini, magnitude +0.1. On the morning of the 5th a Gibbons Moon will be near the planet.

Asteroid Eros: Will pass from Auriga to Lynx on November 4th, magnitude 11. It will pass 1° 07' N of 19 Lyncis, mag. 5.6, on the 23rd and will attain maximum northerly declination of 56° 39' on the 29th, which means it will be circumpolar. Eros will reach 8th magnitude in January and should be within the reach of moderate instruments - opposition occurs Jan. 23rd.

Geocentric co-ordinates for November.

Nov.	R.A.	Dgc.	Magnitude.
9th	6h 37.5m	+ 54° 50'	10.9
13th	6h 49.4m	+ 55° 26'	
17th	7h 01.0m	+ 55° 56'	
21st	7h 12.0m	+ 56° 19'	
25th	7h 22.4m	+ 56° 34'	
29th	7h 32.1m	+ 56° 39'	10.2

Compliments to our London correspondent Charles Radley for predictions of Eros.

LUNAR SECTION.

Moon Phases:

Lunation 642	New Moon	Nov. 14th	00h 53m U.T.
	First Quarter	Nov. 21st	22h 39m U.T.
	Full Moon	Nov. 29th	15h 10m U.T.
	Last Quarter	Dec. 6th	10h 10m U.T.

Apogee Nov. 21st 08h U.T.

Perigee Nov. 8th 04h U.T.

Lunar Eclipse: On the 29th November a total eclipse of the Moon will be visible from N.W. of N.America, Australasia, Asia, Africa, Europe and Arctic regions. Part of the eclipse will be visible from Great Britain. The Moon will be leaving the Umbra a few minutes after Moonrise.

Moon enters Penumbra	12h 25.9m	
" " Umbra	13h 29.3m	
Total Eclipse begins	14h 35.8m	
Middle of Eclipse	15h 14.1m	
Total Eclipse ends	15h 52.4m	Moonrise 15h 43m.
Moon leaves Umbra	16h 58.9m	
Moon leaves Penumbra	18h 02.1m	

Occultations :

Nov. 2nd	23h 11.4m		mag.	4.7	R
"	3rd 01h 46.1m	105 Tau	"	6.0	R
"	4th 01h 00.6m	SAO. 077983	"	6.9	R
* "	4th 01h 19.5m	SAO. 078006	"	7.8	R
"	4th 03h 31.9m	SAO. 078077	"	6.9	R
* "	5th 04h 17.5m	SAO. 096620	"	8.3	R
* "	7th 0h 08.4m	Alpha Cancri	"	4.3	R
"	9th 03h 24.5m	237 B Leo	"	6.3	R
* "	9th 05h 09.5m	55 Leo	"	6.0	R
"	9th 05h 42.0m	SAO. 118577	"	6.9	R
"	10th 06h 51.9m	SAO. 138445	"	5.8	R

\* denotes star is a double.

Nov. 4th	SAO. 078006	mag. 7.9, 11.1	sep. 3".2
"	5th SAO. 096620	" 9.1, 9.1	" 1".1
"	7th Alpha Cancri	" 4.3, 11.0	" 11".0
"	9th 55 Leonis	no infor. available to hand.	

The occultation of Alpha Cancri should be a very interesting site due to the wide sep.

METEOR OBSERVATION SECTION.

This month maximum of the Taurids occurs on 8th Nov. the radiant transits the meridian at 00h 50m U.T. reaching 50° altitude, the shower has a double radiant at RA 03h 44m Dec. + 14° and RA 03h 44m Dec. + 22°. The shower is predicted to be rich in fireballs.

On Nov. 17th at 19h U.T. maximum of the Leonids occurs Z.H.R. predicted at 5°. The radiant transits the meridian at 06h 26m and reaches approx. 50° altitude.

Moonrise on the 8th 0H 03m U.T.

1975 BAA Handbook now available price 75p. - send 10" x 8" S.A.E. to BAA, Burlington House, Piccadilly, London W1V 0NL. Mention you are a member of O.N.S.I.

COMETS. On Friday 15th November, Mr. M. Hendie, F.R.A.S. will be giving a lecture on Comets for our Society At the Friends Meeting House, Fonnereau Road, Ipswich. Mr. Hendie last year gave a lecture to us on Comets, including the Kahoutek Comet. This lecture was well supported and many people had to be turned away because the lecture hall was full up. The Lecture starts at 8.00p.m. and we look forward to seeing all our members and friends there.

P.T.O.

The following observations were made during September:

TC = T. Cardot  
DB = D. Barnard.

SS CYGNI (12 Sept) 9.76 TC (18th Sept) 9.91 TC

EG LYR (12 Sept) 11.94 TC (18th Sept) 11.42 TC

V 360 (12th Sept) 10.48 TC (18th Sept) 11.48 TC

RCRB (9th Sept) 5.9 DB

OPEN DAY held on Saturday 27th September, 1974.

During a period of abominable weather the heavens opened up for one of the best days and evenings for viewing during September for our Open Day. The good weather attracted about two-hundred people during the day and evening to the Observatory and many people stayed late into the evening to view the heavens through the Giant Telescope at Orwell Park.

During the afternoon the telescope was set on Venus and those people not looking through the telescope were entertained by two films shows, the first of which was found to be too long and was shortened on the second show. Nevertheless the two film shows were enjoyed by all.

We were pleased to see so many of our members not only helping out on the Open Day, but helping during the previous weeks to get the observatory ready for the Open Day.

Mr. D. Brown, who was in charge of many fair damsels at the tea and bicky counter did a roaring trade in cakes, buns and coca colas and their efforts, together with the many mums, wives and friends who helped to cook the cakes, helped to swell the total income towards our funds.

The total nett income towards our Society's funds from the proceeds of the Open Day fell just a few pence short of £60, and my thanks to all who helped to make this years Open Day a truly rememberable one are greatly appreciated.

R.M. Cheesman, (Chairman)

COMET TALK.

Please, after reading the attached poster on the Comet Talk, place it in your front window so that we can get as much advertising for the talk as possible.

More posters for putting in shops, libraries, etc. can be obtained from Mr. R.M. Cheesman, Ipswich.

LATE NEWS.

We have been asked by the Director of the Meteor Section of the B.A.A. to do a meteor count on the 9th November. This will take place on 9th November from 10p.m. at Foxhall Stadium.

NOVA SAGITTARI.

Nova discovered in Sagittarius on 6th October at mag. 9.0 which is gradually fading.

R.A. (2900) 17.45.7 Dec. 18 45'

## PROGRAMME FOR NOVEMBER, 1974.

MONDAYS: from 7.30p.m. WEATHER PERMITTING. General Observation Period  
 Director. G. Collier, [REDACTED] Church St. Chelmondiston,  
 'Phone Woolverstone [REDACTED]  
 and P. Carroll, [REDACTED], Ipswich.

11th November

25th "

TUESDAYS: from 7.30p.m. DOUBLE STAR SECTION.  
 Director. D. Bearcroft, [REDACTED], Ipswich, 'Phone [REDACTED]

12th November

26th "

WEDNESDAYS: from 7.00p.m. Solar, Lunar & Planetary Section.  
 Director. R.M. Cheesman, [REDACTED], Ipswich.

6th November

20th "

from 8.30p.m. 13th "

27th "

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

Director. T. Cardot, [REDACTED], Ipswich, 'Phone [REDACTED]

and D. Barnard, [REDACTED], Ipswich, 'Phone [REDACTED]

7th November

14th "

21st "

28th "

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

Director. M. Stow, [REDACTED], Ipswich,

and R. Hazlewood, [REDACTED], Ipswich, 'Phone [REDACTED]

8th November.

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

Director. J. Deans, [REDACTED], Capel St. Mary, 'Phone GT. WENHAM

and K. Dye, [REDACTED], Ipswich, 'Phone [REDACTED]

1st November

29th "

NOVEMBER 6th - 15th 10 Week.

SATURDAY, 9th November from 7.00p.m. Visit to Observatory by Ipswich Geological  
 Society, arranged by R.M. Cheesman.

\*\*\*\*\* FRIDAY 15th November at 8.p.m. at the Friends Meeting House, Fonnereau Road, Ips \*\*\*\*\*  
 \*\*\*\*\* TALK ON COMETS BY M. HENDRIE, F.R.A.S. All Welcome, Admission Free. \*\*\*\*\*

SATURDAY 16th November. METEOR SECTION.

Director. S. Flory, [REDACTED], Ipswich, 'Phone [REDACTED]

LEONIDS METEOR COUNT. Meet at entrance to Foxhall Stadium at 10.00p.m.

FRIDAY 22nd November at 8.00p.m. Visit to Observatory by Ipswich Friday Club  
 arranged by R.M. Cheesman.

ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

PRESENTS

A TALK AND DISCUSSION ON

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# COMETS

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by

MR. MALCOLM HENDRIE F.R.A.S.

AT THE

FRIENDS MEETING HOUSE

39 FONNEREAU RD.

IPSWICH

ON FRIDAY 15<sup>TH</sup> NOVEMBER 1974

AT 8 P.M.

— ADMISSION FREE —

REFRESHMENTS AVAILABLE

SECRETARY: MR. P. CARROLL  
30 DEFOE ROAD, IPSWICH.