



JOURNAL of the
ORRELL ASTRONOMICAL SOCIETY (IPSWICH)

APRIL, 1974

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"What's Up?" The Solar System this month as from Ipswich.

The Moon Phases:- First Quarter March 31st, Full Moon April 6th 21h, Last Quarter April 14th, New Moon April 22nd. First Quarter April 29th Full Moon, May 6th.

MERCURY: It is unlikely that you see this planet this month, wait until late next month.

VENUS If you get up early on April 20th, 1/2 hour or so before dawn you will see Venus & Jupiter (mags -3.8 & -1.7 respectively) very close together in the south-east.

Venus is a morning star, maximum elongation on April 4th when its phase is predicted to be half full (0.5) or dichotomy, however, at every morning elongation observed, Venus' observed dichotomy has always been a few days too late. It is worthwhile recording the phase from April 4th onwards to determine the date of dichotomy. To record phase, 1.0=Full, 0.5=half full, crescent-less than 0.5, gibbous-greater than 0.5. Phase obviously, being the fraction of the disk illuminated cannot be greater than 1.

To record phase, simply jot down the fraction along the planet's equator at which the terminator is positioned.

MARS Not much to look at now, will be close to Saturn on the evening of April 20th.

JUPITER Starts to become visible as morning star this month. Close to Venus on April 15th, see note on Venus above.

We may just have our last chance to see a mutual phenomenon of Jupiter's satellites for another few years on May 2nd. It will be a near thing, since the planet will only rise at 02h45m, and the sun rises during the phenomenon, but if the planet is picked up by a moderate telescope, especially using a Wratten 15 filter, which can be ordered through Turner's in the Walk, Ipswich, which is yellow-orange colour, it may be possible to observe even after the sun rises providing the planet has been found well before hand and is not lost. Note the time of sunrise, then here are the predicted times for the eclipse of I by II:-

Penumbra start 04h46m, shadow start 04h48m shadow end 04h48m penumbra end 04h55m. It may be possible to observe I's sudden fall in brightness at 04h48m. More details on other pages this month.

SATURN evening star in Gemini, still going strong.

METEORS from April 19-24th. VERY FAVOURABLE. It only reaches a predicted maximum of 12 meteors per hour with the transit at the zenith, however. The shower should be seen best on the night, all night, of the April 21st/22nd. The maximum rate at 22h on 21st, but transit of radiant (then 70° above horizon) is at 04h.

BST v GMT/UT Please note that all the times quoted above are the astronomers' UT, we don't worry about BST!!

COMETS Two comets are predicted to come within the reach of amateur instruments this month, Comet Encke 1786 I (a faithful periodic comet, and member of the solar system) and Comet Bradfield 1974b (a tramp, just passing through, like Kohoutek).

Both are predicted to have maximum brightness of mag 3-4. First, BRADFIELD: Bradfield has already passed its peak, having passed perihelion, and is growing dimmer, predicted to be 6.1 at the start of the month, sinking to 9th by the end. HOWEVER, 1974b's plane of orbit is right out of the ecliptic, and during the course of 22nd Feb to 23rd April, its track (predicted) takes it from SCULPTOR, through CETUS, PISCES, ARIES, TRIANGULUM, ANDROMEDA, PERSEUS, CASSIOPEIA, where it becomes dim, and may well be lost.

Sorry I could not publish predictions in the last edition, but the comet was only discovered a couple of weeks ago. Approx co-ords on April 2nd RA 02h24m Dec +32°. It hits the milky way on the 6th, it is a few degrees east of the Sword Handle in Perseus on April 13/14, 1° from Iota Cassiopeiae on April 20/21st.

Bradfield is visible in the evening sky after sunset. If it is a clear evening, telephone me for the exact co-ordinates. No doubt the 10" 6G will be used for "Sbpt the Comet" games on clear nights.

COMET ENCKE will be dimmer and nearer to the sun than Bradfield. Perihelion & Maximum brightness will be on April 28th. Co-ordinates on that date:- RA 03h36.87m, Dec +19°27'. The comet will be best observed during the last week of April. Once again, if it is a clear night, telephone me and I will give you the co-ordinates for that night. The comet should be visible shortly after sunset, in Aires/Teurus.

SOCIETY NEWS

CAMBRIDGE VISIT NOW your last chance to book for the society organised visit to the University of Cambridge Optical and Radio Observatories. The Coach will leave the Electric House Ipswich at around noon Saturday 6th April, and will reach the Mullard Radio Observatories around 2 o'clock. We hope to visit the Optical Observatories in the evening to do some viewing through one of their less used instruments. Alternatively, we will simply look round the observatories in the late afternoon. Further details on other pages in this newsletter written by Roy Cheesman. Book your tickets from Roy Cheesman at [redacted], Ipswich, at £1 each. If you have any enquiries, telephone me.

This will be a very enjoyable and worthwhile trip if you can make it, Cambridge is a very nice place in its own right, and is the nearest centre of astronomical study to us.

THE OCCULTATION OF SATURN The observatory was open until late on the evening of Saturday March 2nd to observe the occultation of Saturn by the Moon. Disappearance was at about 23h47m UT, and reappearance at about 00h44m UT early on the Sunday morning. About ten people were at the observatory, and report that they had a great time, it was a thrilling sight watching the satellites of Saturn disappear one by one behind the dark edge of the Moon, and finally the planet itself. They also watched the reappearances. I understand too that refreshments to keep out the cold were supplied by Nigel Gage.

THE MEETING to be held at Orwell Park in co-operation with the J.A.S is still going ahead as planned, no further developments to last ~~xxx~~ those mentioned in last month's edition.

FIREBALL John Deans observing from Capel-St-Mary reports seeing a fireball shortly after the reappearance of Saturn after the event mentioned above. Time: 00h47m UT, March 3rd. Starting about 50° high in the north-west, ending at about 20° elevation in the west-north-west. Did anybody else see this fireball, which lasted a few seconds, and was an intense white colour. John is not sure of the brightness, ~~xx~~ but it was brighter than first magnitude, and may have had a negative magnitude. He thought that observers packing up after observing Saturn that night might have seen the meteor.

Mutual Phenomena of Jupiters' Satellites As mentioned in this month's "What's Up?" feature, your last chance to see a mutual phenomenon of Jupiters' satellites occurs on May 2nd, when II (Europa) eclipses I (Io). The relative positions of the four brightest of Jupiters' satellites is shown here. At the time of the eclipse, IV (Callisto) will be in transit across the face of Jupiter, and should be visible as a dark spot in a medium sized telescope. The transit of Callisto ends at 05h20m, well into the daylight. The shadow of Callisto will have already crossed Jupiter's disk before the planet rises, and at planet rise Callisto will already be on the planet's disk. The configuration is thus:- This is the inverted view (west on the left) as seen through an astronomical telescope:-

I, II, IV/Jupiter, III. IV will be to the left (west) of the central meridian of Jupiter at the time, and will ~~leave~~ emerge from the west of the planet, and has thus been marked to the left of Jupiter. The Satellite which will be eclipsed, I, is at the extreme left. Io will then be about 7th magnitude. At the time of the eclipse, the sky will be quite bright, and if the observatory is open, and it is ~~is~~ clear weather, I will be there and provide a Wratten-15 filter, ~~which~~ which hopefully will exclude the blue sky colour, and make the planet at its satellites that much clearer.

GOOD LUCK WITH COMET BRADFIELD IF YOU CAN FIND IT. I have the co-ordinates of the object for each night of the next few weeks.

THE NORWICH ASTRONOMICAL SOCIETY have a meeting on April Saturday, when they have a questions and answers session

SCIENCE FICTION I have discovered a devoted science fiction addict from my last month's appeal, anybody else interested in SF?

LIBRARY Our collection of publications for the society library at the observatory is slowly increasing, more donations of magazines, books, maps, photos, or anything vaguely astronomical are very welcome.

On the debit side, people, we don't even know if they are members or not, have been borrowing books from the library without signing for them. Members are welcome to borrow books, but do sign for them, as we would like to keep track of them.

CAMBRIDGE TRIP Time for leaving Ipswich will be about 11.15, not noon.

ORNBILL ASTRONOMICAL SOCIETY (IPSWICH)

CLUB NIGHTS, APRIL, 1974

WEDNESDAYS: from 8p.m. Weather permitting.

Directors. K. Harris, [REDACTED], Ipswich Tel. [REDACTED]
and T. Jay, [REDACTED], Elmsett, Tel. Offton [REDACTED]

APRIL: 15th
29th

THURSDAYS: from 8p.m. Weather permitting.

Directors. G. Collier, [REDACTED] Church Street, Chelmondiston
Tel. Woolverstone [REDACTED]
and A. Farthing, [REDACTED], Winesham.

APRIL, 9th
23rd.

FRIDAYS: from 8p.m.

Director. J. Bearcroft, [REDACTED], Ipswich, Tel. [REDACTED]

APRIL, 2nd.
" 16th
" 30th

SATURDAYS: from 7p.m.

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

APRIL, 10th
" 24th

from 8.30p.m.

April, 3rd
" 17th

***** THURSDAYS: from 8p.m.

Directors. T. Cardot, [REDACTED], Ipswich,
and J. Sparkes.

APRIL, 4th
" 11th
" 18th
" 25th

FRIDAYS: from 8p.m.

Directors: H. Stow, [REDACTED], Ipswich,
and T. Cardot, [REDACTED], Ipswich.

APRIL, 12th Please **check** this date if you wish to
attend **this club night** (Bank Holiday)
" 26th

FRIDAYS: from 8p.m.

Directors: J. Deans, [REDACTED], Chapel St. Mary, Tel. [REDACTED]
and K. Dye, [REDACTED], Ipswich, Tel. [REDACTED]

APRIL, 5th
" 19th

***** Please note new Club night on Thursdays.

SUNDAY from 9.a.m. to 12 noon. Special morning to clean up the
observatory ready for the meeting of the Junior Astronomical Association
on the 4th May. All the help you can give towards cleaning the observatory
would be greatly appreciated.

Comet Encke 1786 I should be visible through our telescope
from April 13th onwards magnitude 8.0 reaching magnitude 4.1 on the
3rd May before going away from us again to magnitude 13.5 on 22nd July.

Minutes of the

COMMITTEE MEETING, held on 11th March, 1974

Present: R.M. Cheesman (Chairman) H. Hadden (Secretary) D. Brown, J. Deans
D. Bearcroft, C. Radley, V. Milkes

Apologies: G. Collier, M. Stow, P. Carroll.

The Minutes of the previous meeting were read and agreed correct.

PURCHASES. The Chairman reported that he could not get an orthoscopic lens from the main dealers as they were out of stock but would get one as soon as he could.

J.A.S. MEETING. The Chairman reported that he, together with Mr. C. Radley, had seen Mr. Bell, the headmaster of Orwell Park School, who had given us permission to use the School lecture hall and canteen for the J.A.S. meeting.

B.A.A. LUNAR SECTION MEETING. It was hoped to re-arrange this meeting during the Autumn.

REPAIRS TO OBSERVATORY. It was proposed that Sunday 21st April morning volunteers would clean up the observatory ready for the J.A.S. Meeting. Mr. Cheesman said that he would arrange this.

KEY HOLDERS TO OBSERVATORY.

Mr. T. Cardot, was authorised by the committee to hold a key to the observatory and use the observatory. It was hoped that Mr. Cardot would hold his evenings at the Observatory on Thursdays.

USE OF THE OBSERVATORY BY THE STAFF OF ORWELL PARK SCHOOL.

The Chairman reported that Mr. Bell had approached him regarding the use of the observatory by members of his staff. Mr. Bell appreciated that the dome shutter was proving to be very difficult to open and close and suggested that two members of his staff should be given tuition on the telescope and shutter. The committee agreed that two members of the Staff of Orwell Park school should be given tuition on the use of the observatory and telescope.

REPAIRS TO DOME WHEELS. There was a lengthy discussion concerning the replacing of the dome wheels which were broken. It was thought that this would entail seeking professional advice and help which might prove to be very expensive. It was hoped that during the coming months a full appraisal of the cost and work could be carried out before the dome finally ground to a halt.

As there was no further business the Chairman called the meeting to a close.

Next Meeting Monday April 8th at 8p.m.

CAMBRIDGE TRIP.

The visit to Mullard Radio Observatory and the Institute of Cambridge Optical Observatories has been arranged for Saturday 6th April.

The cost for transport will be £1 per person and there are still a few seats left on the bus. If you would like to come please contact Mr. R.M. Cheesman, [REDACTED], Ipswich as soon as possible.

The bus leaves the Electric House (behind the Odeon Theatre) Ipswich at 11.15a.m. and will be returning at approx. 11p.m.

Although we might stop on route for food it is advisable to bring your own just in case we get too interested in our visits and do not find time to call anywhere!

TYPEWRITER.

The society is still looking for a typewriter. If you have one or know anyone who has one for sale please contact Mr. R.M. Cheesman, [REDACTED], Ipswich.

MEMBERSHIP SUBSCRIPTIONS.

Some membership subscriptions are still due. If you would like to renew your membership for 1974 please send the subscription to the Treasurer, Mr. G. Collier, [REDACTED], Church Street, Chelmondiston, Nr. Ipswich, Suffolk.