Nov. 1981

JOURNAL OF THE ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

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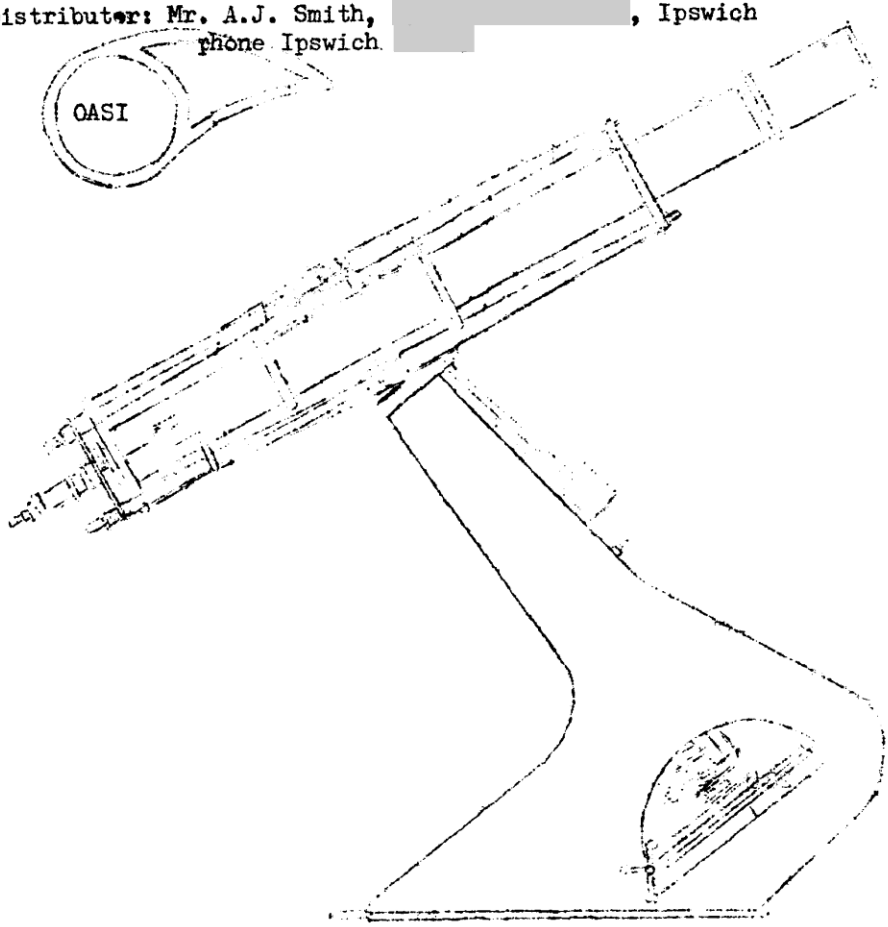

The Orwell Park 10 inch Astronomical Telescope
at Nacton, near Ipswich.

THE NIGHT SKY AS SEEN FROM ORWELL PARK DURING NOVEMBER.

by Paul Burt.

The zenith is occupied this month by the famous sword-handle cluster during late evening, lying midway between Eta Persei and Delta Cassiopeiae. The winter constellations of Taurus, Orion, Auriga and Gemini are now filling the eastern sky, while the southern aspect appears quite barren, containing a string of barren constellations. These are, from east to west, Eridanus, Cetus, Pisces and Aquarius. Triangulum and Aries are on the meridian at midnight at the beginning of the month and west of them lie Pegasus and Andromeda. Still further west Cygnus is still fairly high up until midnight.

THE SUN:

Sunrise is at 0700 hours at the beginning of the month, changing to 07hours 50 minutes at month-end. Sunset changes from 16hrs 30m to 15h 50m. The Sun moves from Libra to Scorpio during the month.

THE MOON - Phases:

First Quarter	5d 01h 09m	Last Quarter	18d 14h 54m
Full Moon	11d 22h 26m	New Moon	26d 14h 38m

Occulatations:

Star	Phase	Mag.	Time d.	hrs.	mins.
3049	D	7.2	4	20	31.6
** 60	D	7.0	9	00	52.2
798	R	6.4	13	23	18.4
1395	R	6.3	17	23	32.5
*2873	D	7.2	30	17	19.8

D = Disappearance. R = Reappearance

Stars listed according to Zodiacal Catalog (ZC) numbers

* denotes double star

** denotes time is correct for latitude and longitude of Greenwich.

THE PLANETS:

Mercury reaches greatest elongation of 19° on the 3rd, rising nearly 2 hours before the Sun at mag. -0.2. This is the best morning apparition of Mercury this month.

Venus reaches greatest elongation of 47° on the 11th, at mag. -4.1, but will be setting only 2 hours after the Sun, and will be low in the sky.

Mars is at mag. +1.5 in Leo, rising a little after midnight.

Jupiter will be rising 3 hours before the Sun by month-end at mag. -1.2 in Virgo. It will be near Mercury on the 6th.

Saturn is also in Virgo, rising an hour before Jupiter at mag. +1.0.

Source: B.A.A. Handbook 1981. All times are U.T.

FROM OTHER JOURNALS: by Paul Burt.

The Universe - A Giant Polo Mint?

American astronomers using the Kitt Peak National Observatory have announced the discovery of the biggest empty space in the observable Universe. They discovered the giant void behind the constellation of Bootes during a deep survey of galaxy red shifts. In three separate areas of sky separated from each other by 35° they found galaxies clumped together at distances of 300 million and 600 million light years with almost nothing between. The width and depth of the void imply that it has a volume of 3×10^{25} cubic light years, and a diameter of about 300 million light years, which is a few per-cent of the size of the observable universe. The area has a mass density of about one tenth of the rest of the universe, and may well be a left-over from the 'Big Bang'. Large empty spaces and clumps of galaxies are almost certainly the frozen remnants of hot bubbles and blobs in the newly-born Universe.

New Scientist 5th October, 1981.

ARTICLES TO READ.

'The Future in Space' - New Scientist 1st October, 1981.
A series of articles covering the entire spectrum on future space travel including future astronauts, Russian space-stations, the Satellite Power System (SPS), Lunar settlements, planetary exploration, and military satellites.

'Saturnalia' New Scientist 15th October, 1981.
A double page colour feature of photographs taken by Voyager 2 of Saturn and it's moons.

METEOR NOTES FOR NOVEMBER

by David Barnard.

The meteor count on Saturday 17th October had to be cancelled because of heavy rain.

There are three major meteor showers this month:

1. The Leonids. The maximum of this shower falls on Nov. 17th with the normal limits falling between Nov. 15 - 19th. This shower has fast meteors with persistant trains. The ZHR is about 10 although this shower is now increasing in activity. The radiant is 10hrs 8m and Dec. +22°

2. The Taurids. The maximum of this shower is on the 7th Nov while the normal limits are between October 20th and November 30th. This shower is very rich in fireballs and the shower has a double radiant. R.A.03h44m Dec. 14° and 03h 44m +22°. The ZHR is about 12 and this year the Moon interferes at maximum.

3. The Cepheids . This shower is a fairly recently discovered stream which needs observations. The max. is on Nov 8th while the normal limits are between November 7 and 11th. The radiant is 23h 30m R.A. and +63° Dec. The Moon also interferes with this shower at maximum.

There is one minor shower this month, The Bielids with the maximum on November 14th of about one meteor per hour. This has a diffuse radiant and the normal limits are not known.

NO METEOR COUNT THIS MONTH. P.S. Do not confuse the Taurids with what is happening on the 5th!

EXPEDITION No. 3 - AURORA SECTION - DURNESS IN WINTER:

A date has now been fixed for a weeks trip up to Scotland. Departure will be on Saturday January 16th 1982. There are amazingly still a few places available for this very popular week away, so anyone interested please contact me right now on Ipswich [redacted] or during working hours (except Mondays) on Ipswich [redacted] ext. [redacted].

David Barnard.

VARIABLE STARS OBSERVATIONS by Mike Nicholls.

There is no light curve this month because the two stars to be discussed have varied very little so far this year. The light curves would be almost straight horizontal lines.

The first star is R Coronae Borealis. This is the best known of a class of relatively rare stars called R Coronae Borealis types. These stars remain at maximum for most of the time. R. Coronae has been at around magnitude 6.0 to 6.1 so far this year. However, occasionally they fall by up to 9 magnitudes, remaining there for weeks or even years before returning to maximum again.

Spectra observations show that these stars are rich in carbon. It is thought that the light variations are caused by carbon gas ejected from the star, condensing above the surface and blocking the light with a veil of soot.

The second star is Rho Cassiopeiae which is included by most people in the list of unclassified variables. It could, however, be a semi-regular variable insufficiently observed. During the year it has been around magnitude 4.9. I have recorded it occasionally at 5.1 during the summer but an average of more peoples observations are needed to help with small variations like this. It is said that occasionally it falls to around 6.1, but not so far this year.

Both stars were observed using 10 x 50 binoculars.

Mike Nicholls.

U.F.O. and Peripheral Interest Club.

U.F.Os. are only a part of the wide field of 'Unexplained' or 'to be explained' and many related phenomenae, etc. which often are incidentally, actually 'astronomical' in origin. Also covered in this club would be psychic and other possibilities of communication, which can not be ruled out in correspondence with any entities that can exist in some form - be they extra-terrestrial or not. After all our searching into space shows us such a vast collection of other suns like our own, so, why not some form of intelligent life elsewhere?

If you are interested in helping form such a club please contact Mrs. Ann Adams, [redacted], Ipswich, telephone Ipswich [redacted].

SOCIETY NEWS:

Telescope Drive.

The new electronic drive to the telescope at Orwell Park is now in commission (although not yet paid for!) From priliminary tests on October 18th and 19th every thing seems alright but members must only use this drive system under the strict guideance of the Directors of the various sections.

OPEN DAY

After the most work done in decorating the observatory (by the usual hanfull) and the best display of astronomical items ever the Open Day on Saturday 10th October was not so well attended by the general public as usually turns up for our Open Days. This was because it began raining during the morning and continued to rain quite hard all day. Even so the few members who did turn up to look after the various astronomical stands were hard pushed and we could have done with a lot more help. At the end of the day it looked certain that we would hardly cover our expenses but on a final count the Society had it's bank balance increased by just over £100, which was a lot less than we had made on previous years. The Grand Draw which normally provides us with the bulk of our money shew a very small profit to the Society as only about 50% of the tickets were sold!!

DECEMBER'S JOURNAL:

It would be nice to see more members sending in articles for publication in our Monthly Journal. If you have any items of astronomical interest please send them direct to

Mr. R.M. Cheesman, [redacted],
WEST HANNINGFIELD, Chelmsford, Essex. CM2 8LQ.

Deadline for Decembers Journal is Monday 23rd November.

OPEN COMMITTEE MEETING:

There will be an Open Committee Meeting on Saturday 28th Nov. starting at 7.30p.m. in the Observatory to which all members are invited to come along to discuss what has happened in the Society during 1981 and to discuss future planning of the Society during 1982.

THE SOCIETY'S ARTIST:

Perhaps the unknown artist who leaves excellant pictorial astronomical jokes around the Observatory Club Room would like to send some of his/her efforts to be included in our Monthly Journal! Please make the picture with joke so that it will fit on one of the pages, not big ones (20" x 10" like those hanging around the Club Room)

ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

PROGRAMME FOR NOVEMBER.

At the Observatory, Orwell Park Nacton.

TUESDAYS: Solar, Lunar & Planetary Sections. from 7p,m,
Directors: Mr. J. Hood, [redacted]. Ipswich
Tel. [redacted]
Mr. J. Ranson, [redacted], Ipswich
Tel. [redacted]

3rd 10th 17th & 24th

WEDNESDAYS: Nebulae & Faint Objects Section from 8p.m.
Directors: Mr. D. Payne, [redacted], Wickham Market
Tel. Wickham Market [redacted]
Mr. M. Cook, [redacted], Ipswich
Tel Ipswich [redacted]

4th 11th 18th & 25th

FRIDAYS: Variable Stars Section from 8p.m.
Directors. Mr. M. Nicholls, [redacted]. Capel St. Mary
Tel Gt. Wenham [redacted]
Mr. R.T. Hodgkiss, [redacted]. Ipswich

6th November

FRIDAYS: 13th November from 7.30p.m.
Astronomy for Beginners, everybody welcome to come along to this meeting.

FRIDAYS 27th November. Visit to Observatory by a Womens Club organised by Mr. David Barnard

SATURDAY 28th November at 7.30. Open Committee Meeting in Observatory to which all members are invited.

SUNDAYS: General Observations Section from 8p.m.
Directors. Mr. M. Barriskill, [redacted]. Ipswich
Mr. R. Adams, [redacted] Ipswich
Tel. [redacted] 8th & 22nd.