

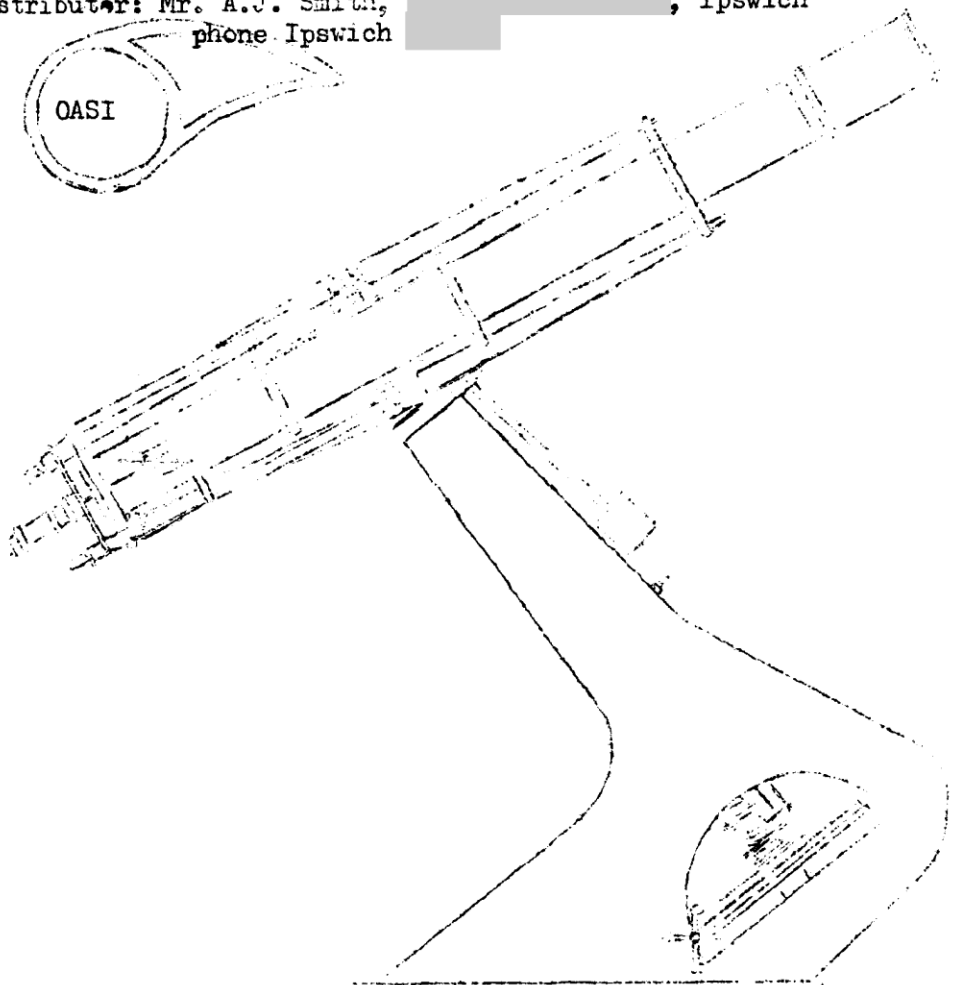
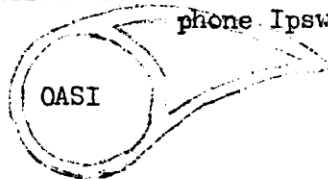
Oct. 1961

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 OCTOBER.

by Paul Burt.

Cassiopeia dominates the zenith this month, with Pegasus and Andromeda across the meridian during late evening. This is the best month of the year for anyone learning the night sky to locate the inconspicuous constellations of Cetus, Pisces and Aquarius. They are all fairly well up in the sky to the south, below Pegasus. Also to the south, just above the horizon, lies Pomalhaut, the 1st magnitude main star of Piscis Australis. The Summer Triangle of Deneb, Vega and Altair now fills the western sky, while over to the east Perseus and Taurus are in full view. Triangulum and Aries are easily located between Andromeda and Taurus.

THE SUN.

Sunrise is at 06h 10m at the beginning of the month, changing to 07h 00m at month-end. Sunset changes from 17h 30m to 16h 30m. The Sun moves from Virgo to Libra during the month.

THE MOON.

First Quarter	06d	07h	45m.	Last Quarter	20d	03h	40m
Full Moon	13d	12h	49m	New Moon	27d	20h	13m.

OCCULTATIONS:

<u>Star</u>	<u>Phase</u>	<u>Mag.</u>	<u>time.</u>
**2964	D	6.6	7d 21h 43.9m
*3225	D	7.1	9d 18h 10.1m
405	D	4.4	14d 22h 43.8m
405	R	4.4	14d 23h 50.4m
894	R	4.6	18d 3h 21.5m

D = Disappearance. R = Reappearance.

Stars listed according to Zodiacal Catalog (ZC) numbers

\* denotes double star ; \*\* denotes time is correct for lat. & long. of Greenwich.

THE PLANETS.

Mercury reaches inferior conjunction on the 18th, and will not be visible this month, but be prepared for early next month when it makes its best showing of the year.

Venus is an evening star, setting about an hour and a half after the Sun at mag. -3.8 increasing.

Mars will be rising at 0100h throughout the month, at mag. +1.7 in Leo.

Jupiter is in conjunction on the 14th, and not visible this month.

Saturn is in conjunction on the 6th, and will not be visible until the very end of the month, when it will be a morning object.

Source: B.A.A. Handbook 1981. All times are U.T.  
(=B.S.T. minus 1 hour)

ARTICLES TO READ

by Paul Burt.

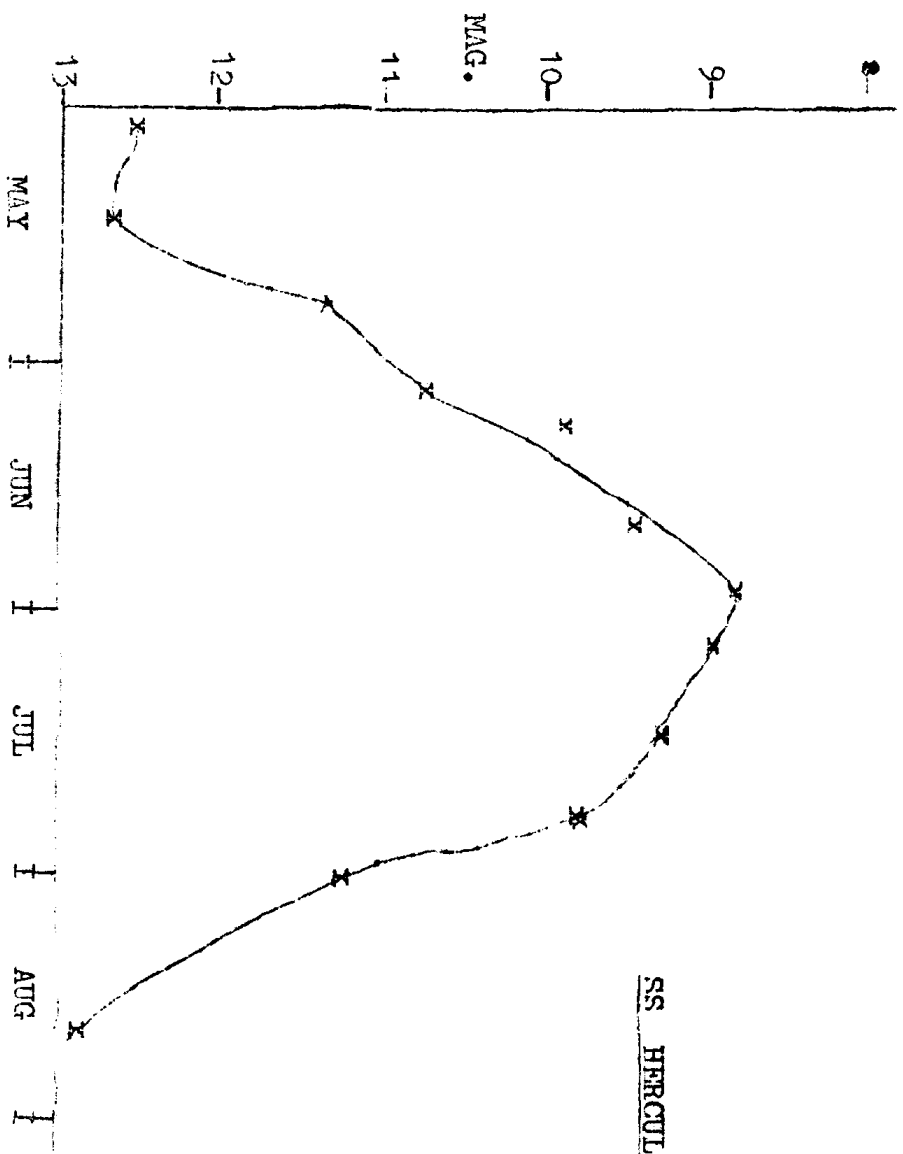
'Voyager Trips - but still does it's job' - New Scientist  
3rd Sept. 81.

A detailed report of Voyager 2's flyby of Saturn and it's moons, complete with black and white photographs.

VARIABLE STAR OBSERVATIONS by Mike Nichols.

The Light Curve on page 5 this month is that of SS Herculis from May to August 1981. This is a long period variable but with the unusually short average period of 107 days. This short period can be clearly seen in the light curve shown. Although Hercules is still in the sky, observations had to cease at the end of August. At this time it became immersed in the glow of the lights of Ipswich. Observations were made using an 8" reflector.

SS. HERCULIS



## AURORA SECTION

'DER'ness 1981. Expedition No. 2 to observe Aurora

### A Diary of events by David Barnard.

On Friday August 28th at 2040 hours, 53 weeks later, five members of our Society left for another enjoyable holiday in north-west Scotland. This time we all went in one mini-bus. We crossed the border at 0354 hours and stopped at Pitlochry for petrol at 0710 and to take a look at the salmon leap. After ordering breakfast in a café at 0830 we finally managed to have a very light-bite indeed!

We arrived at Durness at 1510 hours, a drive of 18½ hours and 729 miles, not bad considering we stopped at Pitlochry for two and a half hours! Yes, the very same friendly Scottish voice greeted us like last year! After cursing the 'Nadges' (Scottish slang for mosquito) we pitched our two frame tents and retired to the Oasis for the rest of the evening.

Sunday dawned calm and sunny. It was decided that once and for all that we had better find that Earth-house or 'Suterrain (Grid ref. 428613) that had eluded us last year. After a small search it was found right beside two cairns beside the road! Then we proceeded down a Scottish C-road signposted 'Altnaharra' to see Dun Dornaigil (an old Brock or defensive structure). There was some bad luck here as our driver managed to get one wheel of the 'bus in a ditch, so it was a case of the passengers helping to lift the 'bus out. On finally turning round Dun Dornaigil's role of being an 1800 year old fort was in serious jeopardy as our rear bumper touched the stonework!

On the way back to camp we stopped at Allt Smoo, a small river which flows down about 80 feet before reappearing in a large three-chambered cave. This time the river was no more, as no rain must have fallen for several months. In the evening we saw what we had come for, The Aurora.

Shortly after we took our friendly camp reception man for a drink (well he did come from Colchester) two rays were seen in the north, low down, at an altitude of say 25° stretching down to the horizon. The sky was fantastically clear. The time was 2320 B.S.T. This sighting lasted until 2325 hours. Then it reappeared again, the same faint white

rays only lasting for five minutes (2340 - 2345). After that watches were kept throughout the night but that was the first and the last time the Aurora was seen that week.

On Monday the weather was still warm and not a cloud was to be seen in the sky. After much discussion it was decided that we attempt the 22 mile round trip cycle ride to Cape Wrath, the extreme north-western tip of Scotland, which eventually proved one of the most gruelling afternoons. A strong wind blew up on the return journey and it proved virtually impossible to ride the bikes especially as most of the return journey was uphill anyway so the bikes were useless. In the ferry back across the Kyle of Durness our friendly ferryman demonstrated the art of eating live mussels! I settled for oakcakes instead. In the evening the skies were beautifully clear again, the Coal-sacks in Cygnus were easily distinguishable.

Tuesday morning was spent getting over the cycle trip and looking at the 'planes on the Naval bombardment range nearby. In the afternoon we took advantage of the dry weather to go back Smoo cave where there normally would have been a torrent of water flowing. In the evening, after walking half way up Faraid Head, it was decided we have a barbecue, as we had acquired some peat. It went very well even if the sausages were rather well done. Orion was seen coming up later, half way up the sand-dune on retiring.

On Wednesday we drove to Tongue and on the way saw two interesting symbol stones, the castle of Tongue and also the remains of a chambered cairne and a dun with fantastic views of the Kyle of Tongue. On returning a short stop was necessary to hunt for the legendary 'horse mussels' a giant mussel only found on the shores of loch Eriboll. Plenty of 'nidges' merons, curlews etc. but no mussels!

On Thursday our Aurora sightings were confirmed by a lady at Balkadei craft village. By this time the weather had deteriorated a little but it was still warm. Another Bar B.Q. was held on that night, and a second try to melt sand in a peat fire failed.

Friday morning dawned, a familiar sound awoke us just after dawn - yes the weather had changed. A force 8 southerly gale had blown up and our two tents turned into potential hang gliders so we abandoned camp at 0730, even so one of

6.

damaged. We left Duxness at 1210 hours to arrive in Ipswich at 0820 hours and a memorable and enjoyable holiday, hoping again to return in January or February. Anyone wishing to join us please contact me.

David Barnard.

METEOR SECTION: Director David Barnard.

There is one main shower this month - The Orionids which has it's maximum on October 21st and the normal limits falling between October 16th and 27th. This shower has fast meteors with persistent trains.

We will hold a Meteor Count to observe this shower on Saturday October 17th. Please meet OUTSIDE the 'Levington Shop' at 8.30p.m. irrespective of weather conditions.

SOCIETY NEWS:

The biggest news of this month is our Open Day on October 10th. As many members as possible are required to help on the Friday night from 7.30p.m. to get things ready and also on Saturday from 10am we will be at the observatory doing the final preparations for a 20'clock start. Please come along and help as we have many expensive items of equipment to look after. Also on the Sunday morning from about 10am members are required to help in clearing up operations.

YOUR SOCIETY NEEDS YOUR HELP! please

CHANGE OF ADDRESS:

Please note that MIKE NICHOLLS has moved to

[REDACTED],  
Capel St. Mary, Ipswich  
telephone GT. WENHAM 311736.

OPEN COMMITTEE MEETING:

There will be an Open Committee Meeting to which all members are invited on Sat. 24th Oct at 7.30p.m. in the Observat. observatory.

# OPEN DAY 1981

THERE ARE MANY SMALL JOBS TO BE DONE ON OPEN DAY, SUCH AS HELPING TO PARK CARS, KEEP AN EYE ON VARIOUS STALLS AND EXHIBITS, CONDUCT VISITORS TO AND FROM THE OBSERVATORY ETC, AND ANY MEMBERS WHO CAN COME UP, EVEN IF ONLY FOR A COUPLE OF HOURS, WOULD BE MORE THAN WELCOME.

PLEASE COME AND HELP IF YOU CAN.

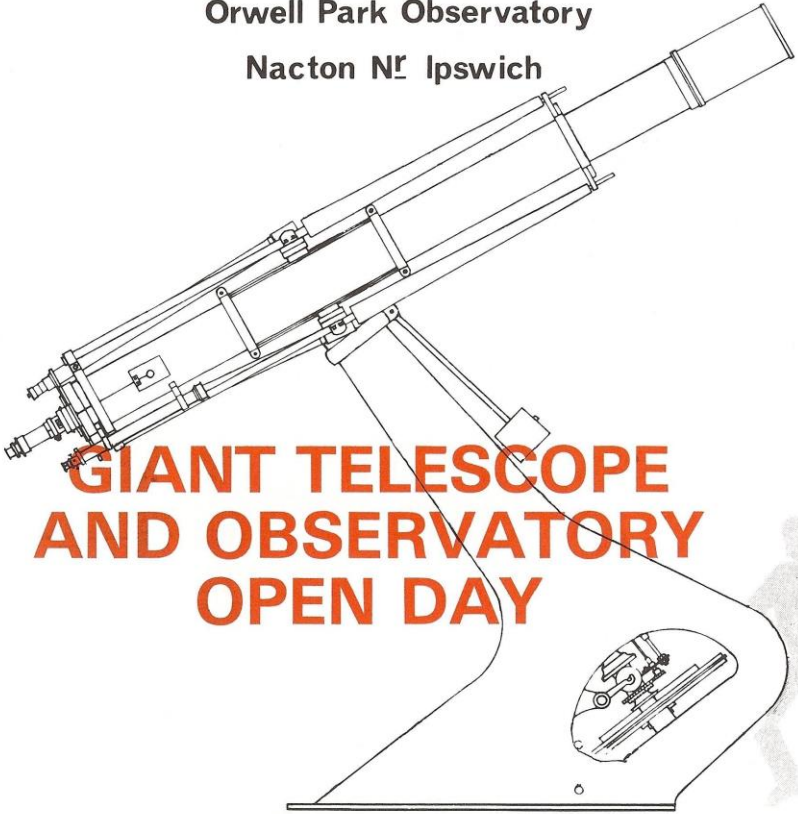




# **Orwell Astronomical Society (Ipswich)**

**Orwell Park Observatory**

**Nacton Nr Ipswich**



## **GIANT TELESCOPE AND OBSERVATORY OPEN DAY**

THE ORWELL ASTRONOMICAL SOCIETY PRESENTS  
THEIR 109 YEAR OLD TELESCOPE AND OBSERVATORY  
FOR PUBLIC VIEWING ON:-

**Saturday the 10th October 1981 — from 2 p.m. — 11 p.m.**

### **ATTRACTIONS INCLUDE**

**PLANETARIUM; SLIDE & FILM SHOWS EXHIBITIONS; ETC.  
DURING AFTERNOON & EVENING  
GRAND DRAW**

### **REFRESHMENTS AVAILABLE**

Open during the afternoon & evening for  
viewing the heavens through the 10" O.G. telescope  
(Weather permitting)

Admission: Adults 30p  
Children 15p

Secretary: Mr. M. Barriskill  
15 London Road  
Ipswich