

ORWELL ASTRONOMICAL SOCIETY, IPSWICH.

SOCIETY NEWS

Q.A.S.I.

OF COURSE TO ENSURE THINGS
GO WELL ON THE ANNUAL FUND
RAISING DAYS.... WE'LL HAVE TO....
"PLAN-ET!"



SEPTEMBER 1986.

1. Congratulations
On Saturday 13th September, Martin Cook and Judith Herring will be getting married. On behalf of the society, we extend our best wishes to them for the future.
2. Open Evenings
Our annual public open evenings will be on the 4 nights of Friday to Monday, 19, 20, 21, 22 September. The observatory will open at 8.00 p.m. on Friday and Monday and 7.30 on Saturday and Sunday, closing at 10.30 p.m. every night. As much help as possible will be required for these evenings. Please come along and give a hand on at least one night. A poster is included in this issue, for display.
3. F.A.S. Convention, Herstmonceux
The annual F.A.S. convention at Herstmonceux will be on Saturday, 4th October. Interested members should contact R. Gooding as soon as possible. Costs will include an entrance and transport fee.
4. Report on Dome Repairs
At the time of writing (15th August) the dome is still unusable. A steel bar 3" x 12' has been bolted to the inside of the dome over the crack with about 50 bolts. Work still to be finished includes an L shape bracket for top of the dome track and two brackets for the shuttertrack.
5. Suffolk Caravan Rally
The dome will be opened on Saturday and Sunday over the Bank Holiday weekend.
6. Norwich Trip
Arrangements to visit Norwich A.S. observatory will be made either on Friday 5th or 26th depending on weather conditions and any preprogrammed events Norwich A.S. may have. Details from R. Gooding.
7. Greenwich Trip
The evenings of Friday 24th and 31st October have been booked at the Old Greenwich Observatory to use the 28" refractor.

NIGHT SKY

(all times G.M.T)

Sun Rises approximately between 05.10 - 06.10
Sets approximately between 19.00 - 17.40

Moon ● 4th ◐ 11th ○ 19th ◑ 26th

Mercury Superior conjunction on the 5th. Unobservable this month

Venus Bright object Mag.-4.5 low down in the west.
Sets about 1 hour after the sun.

Mars A bright evening object Mag. -1.2 Sets at about
23.10 in mid month.

Jupiter Will be at opposition on the 10th Mag.-2.9

Saturn Visible in evening sky low in the west. Sets at
about 21.00 in mid month Mag. 0.5

Uranus Sets at about 21.20 in mid month Mag. 5.7

Neptune Sets at about 22.20 in mid month Mag. 7.7

Perseid Meteor Shower Field Trip

At 21.15 on 12th August, Alan Smith and I set off in search of a dark location from where we could observe the Perseids. A suitable spot was found to the north of Ipswich, off the road between Pettaugh and Debenham. The site was on an area of grass with a clear northern horizon. The road we arrived by was about 150 yards away from our spot and there were only two houses in view.

Before it became fully dark, Alan re-assembled his camera clock drive, for the first time since his return from Australia. It took several minutes to find Polaris as the sky was still very bright. The sky didn't become dark enough for observing until nearly 22.00.

Around 22.30 Alan happened to notice that a vehicle about $\frac{1}{4}$ mile away was flood lighting an adjacent field with a powerful hand held spot light. During the next $\frac{1}{4}$ hour the vehicle began drawing nearer until the spot light beam eventually reached our observing site. Alan's comments with which I fully agreed could be expressed with some refrain as follows: (If you are looking at a dark clear sky, whether it is 10 or 15,000 miles (Australia) from home, some idiot will come along and shine a light in your eyes'. The vehicle came over to our part of the field and passed by without as much as an inquisitive pause. We concluded that the local populace must be very familiar with cars being parked here, especially at night.

Up to the time we left at 23.45, when the sky started clouding over, about 30 meteors including about 4 sporadic meteors were seen. Most of the perseids seen were between magnitudes 2 and 0, many of which left long trails that persisted for several seconds. About half a dozen of these trails went across the northern part of Andromeda. Other objects seen were numerous low flying air-craft and two satellites in polar orbits.

R. Gooding

TOOLS NEEDED

WOODWORK TOOLS

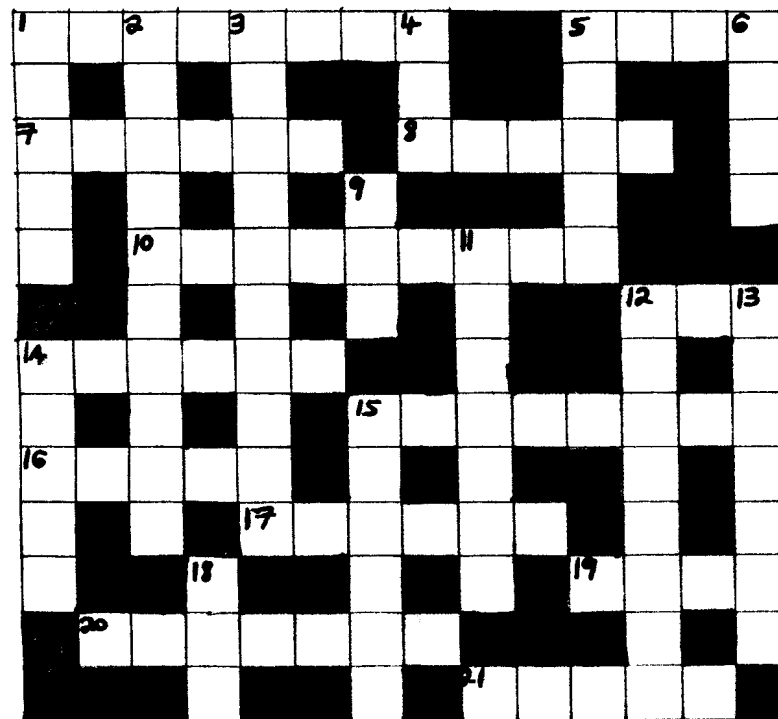
METALWORK TOOLS

SPANNERS

Any tools you can spare are needed to help with repairs and to keep the observatory and telescope at Orwell Park in good running order.

If you have any thing you think might be helpfull please contact any committee member so that collection can be arranged if you cant deliver.

XWORD



ASTRONOMICAL TERMS

E SIMS

ACROSS

- 1 Very bright, large meteorite (8)
- 5 One of many bright objects in the sky (4)
- 7 It has a magnitude of 0.7 within Aquila (6)
- 8 An allotrope of oxygen formed in the upper atmosphere by the action of ultraviolet radiation from the sun (5)
- 10 The serpent bearer - constellation (9)
- 12 9th magnitude companion of Sirius, the dog star (3)
- 14 Sun's outer atmosphere (6)
- 15 All space, matter & energy (8)
- 16 The moon has more influence on them than the sun (5)
- 17 An eclipse produces a large one (6)
- 19 Famous long period variable star which varies in magnitude from 2 to 10 in 332 days located within Cetus (4)
- 20 The winged horse - constellation (7)
- 21 Shape or portion of the moon or planet illuminated by the sun as seen from the Earth (5)

Down

- 1 Powerful eruptions of radiation on the sun associated with sunspots (5)
- 2 An east to west motion or apparent backward motion (10)
- 3 Intensity of starlight which determines magnitude (10)
- 4 In Greece this was the lion slain by Hercules in the first of his labors - constellation (3)
- 5 Watery term for bay on the moon (5)
- 6 Satellite of Saturn which is brighter than 10th magnitude (4)
- 9 It's covered in spots (3)
- 11 Between sea & sky (7)
- 12 Major meteorite shower (8)
- 13 Third brightest star in Ursa Minor (7)
- 14 The sea monster, or whale - constellation (5)
- 15 Recently visited by a space probe (6)
- 18 A time period (3)

Solution to the last crossword

Across - 1 Astronomy, 6 Space, 9 Parsec, 10 Transit, 12 Owl, 13 Elongation, 14 Saturn, 15 Open, 18 Lagoon, 20 Axis, 22 Pole, 23 Sun, 24 Cassini.

Down - 2 Seasons, 3 Resolution, 4 Nuclear, 5 Meteor, 7 Position, 8 Cathode, 11 Algol, 16 Alps, 17 Mars, 19 NGC, 21 Red, 22 Pi.

R.A. LOBBETT

SOLAR WIND

The Solar Wind is the stream of Atomic Particles (Protons & Electrons) which flow outwards from the Sun through the Solar System. Particles emitted from the Sun take several days to reach the vicinity of the Earth and stream past at a speed of about 600km per second. At this distance from the Sun, the mean density of particles is low, but they nevertheless interact with the Earth's Magnetosphere. The level of particles is enhanced during periods of Solar activity and it is thought that particles ejected from Solar Flares entering the Van Allen Belt, and then the Earth's upper atmosphere are responsible for the Aurorae.

Another effect of the Solar Wind is apparent on the tails of comets. It is the interaction between the Solar Wind and the ionized particles in the comet which causes the gas tail to be driven away from the Sun.

AURORA

An Aurora is a diffuse glow or pattern of light patches, streamers or rays seen in the sky at high latitudes. The Aurora seen in the northern hemisphere is called the Aurora Borealis and that seen in the southern hemisphere is known as the Aurora Australis.

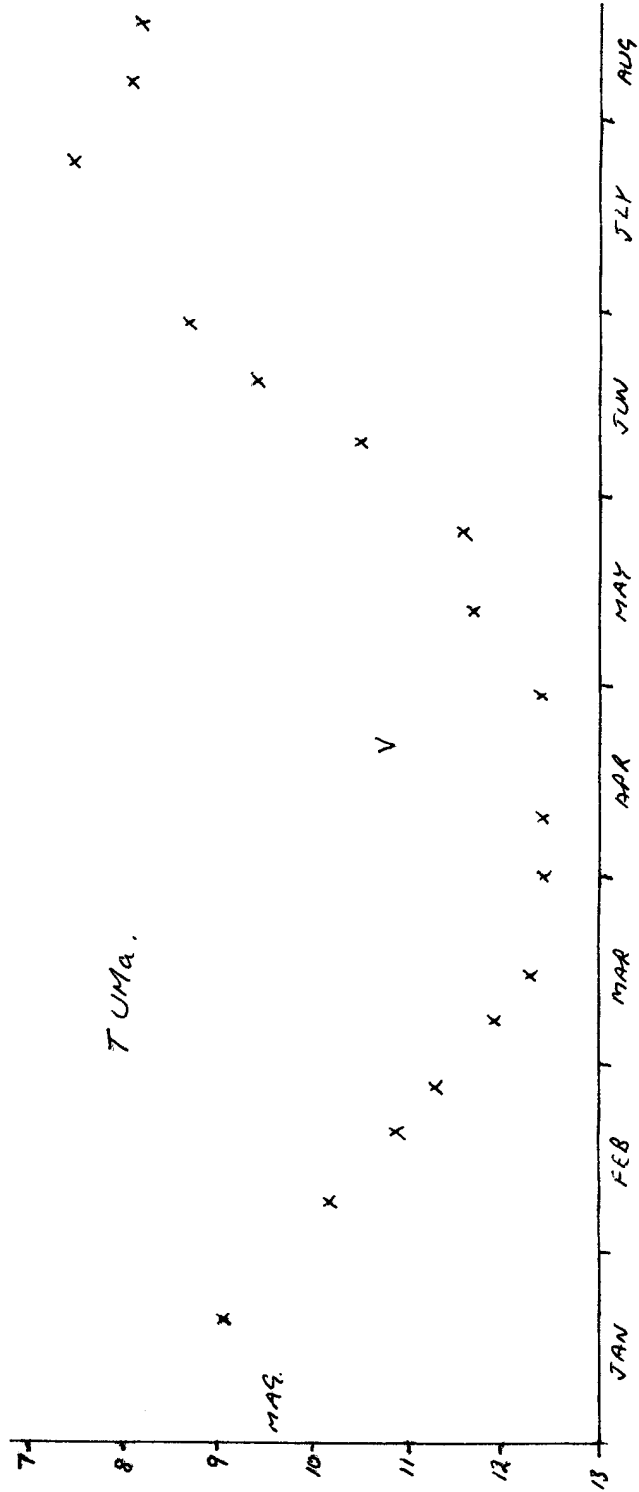
The zones of maximum auroral activity lie in rings of about 20 degrees radius around the north and south magnetic poles; the aurorae are thought to be due to the effects of charged particles entering the upper atmosphere along lines of magnetic force and interacting with the upper atmosphere to cause fluorescence. The particles descend from the Van Allen Belt as a result of the influx of clouds of particles from the Sun, and the frequency of auroral displays is closely related to the Solar Cycle.

VAN ALLEN BELT

The Van Allen Belt is a region which, beginning about 3000km above the Earth, extends out to 4 Earth radii. At one time it was thought to be formed of two separate regions with differing particle populations, but it is now known that high-energy protons are concentrated close to the Earth, with electrons and lower-energy protons at a greater distance.

VARIABLE STAR OBSERVATIONS by Mike Nicholls

This light curve shows T Ursae Majoris from January to August this year. T UMa is a member of the long period class of variables described in the July issue of the journal. With a period of 257 days on average, this light curve shows practically a whole cycle of variation. It can be seen that the minimum lasts slightly longer than the maximum, although this need not necessarily be the case every cycle. All the observations were made with an 8" reflector



PROGRAMME FOR SEPTEMBER

THE DOME TRACK IS STILL UNDER REPAIR BUT WE ARE HOPING TO HAVE IT BACK IN WORKING ORDER FOR OPEN WEEKEND WHICH WILL BE BETWEEN FRIDAY 19TH AND MONDAY 22ND INCLUSIVE.

WEDNESDAY NIGHTS ARE OPEN FOR REPAIRS - PLEASE COME UP ON THESE NIGHTS TO HELP IF YOU CAN.

WEDNESDAYS from 8pm NEBULEA & FAINT OBJECTS SECTION
3, 10, 17, 24

Mr M Cook, [redacted], Ipswich
Mr D Payne, [redacted],
Wickham Market.

Tel: Ips. [redacted]
Tel: W.Mkt. [redacted]

1986 COMMITTEE

CHAIRMAN	D Payne	[redacted], Wickham Market, IP13 0SD	Work: [redacted] Home: [redacted]
VICE CHAIRMAN	R Cheeman	[redacted], Corringham, Essex SS17 9BU	Work: [redacted] Extn: [redacted]
SECRETARY	R Gooding	[redacted], Ipswich IP1 6AE	Work: [redacted] Home: [redacted]
TREASURER	M Nicholls	[redacted], Capel St. Mary, Ipswich, IP9 2EX	Work: [redacted] Home: [redacted]
MEMBERSHIP SEC. /P.R.O	D Barnard	[redacted], Ipswich, IP4 5PP	Home: [redacted] Work: [redacted]
MAINTENANCE	M Cook	[redacted], Ipswich, IP4 5BA	Home: [redacted] Work: [redacted]
LIBRARIAN	E Sims	[redacted], Ipswich, IP1 4HA	Home: [redacted]
SOCIETY EVENTS	R Lobbett	[redacted], Felixstowe	WORK: [redacted] Home: [redacted]
F.A.S. ARTICLES	M Harlow	[redacted], Felixstowe	Home: [redacted]