

SOCIETY NEWS

OPEN WEEKEND

* This will be held on the evenings of 6,7,8,9th of October. *
* As usual for these events HELP will be required to run each evening. *
* From previous years experience, 6 members are needed each night. *
* If you can help even if it's only for an hour please come along. *

Next Committee Meeting

The next meeting will be held on Saturday 21st October at the observatory, starting at 7.30. This is open to all members.

NIGHT SKY

(ALL TIMES G.M.T.)

SUN Rises approximately at 06.00 - 07.00
Sets approximately at 17.50 - 16.40

MOON



8th



14th



21st



29th

MERCURY Mercury is at greatest western elongation (18°) on 10th. It will be rising about 2 hours before the sun. Mag. 1.7

VENUS Venus will be visible in the evening sky. It will be setting about 2 hours after the sun at the end of the month. Mag. -4.4

MARS Mars will be rising at sunrise at the beginning of the month and by about 1 hour towards the end. Mag. 1.7

JUPITER Jupiter will be rising between 22.00 and 20.00 at the beginning and end of the month. Mag. -2.5

SATURN Saturn will be setting at about the same time as Jupiter rises during the month. Mag. 0.5

URANUS Uranus will be setting at about ½ hour before Saturn. located to

NEPTUNE Neptune will be setting a few minutes before Saturn during the month.

R. Gooding



Astro-camp' 89.

Astro-camp is over, for another year, and I can now get back to eating real food and sleeping (for more than 5 hours a night) in a real bed. This may, I think give you a slightly misleading view of the Astro-camp. Because apart from the normal problems associated with a camping holiday, it was a very enjoyable two weeks.

I was among like minded people, who were friendly and helpful. In an idillic setting in the Ashdown forest. With clear dark skys, where I could get down to some serious observing, talking, photographing and most important drinking ! The camp was not at all regimented, but you soon find out that everybody seemed to want to do the same things at the same time.

A typical day for me was as follows:-

- 05:00,06:00,07:00,08:00- Suddenly woken up by strange noise, cold or finding you have just kicked down the tent pole,(more usually all three).
- 09:00-10:00 Try, to Get up. Get washed and have breakfast.
- 10:00-10:30 Organise days events ie shopping or visits and see if anybody needs a lift, (usually at least four).
- 10:30-16:30 Out most of day either visiting or looking for good alternate viewing sights (the forest can get misty).
- 16:30-19:30 Have dinner, go swimming in pool, get equipment organised ready for later. Go down pub!
- 19:30-10:30 Down pub, talking, playing pool and having a few drinks. All while waiting for it to get dark, ' honestly '. May leave at 11:50 if cloudy.
- 10:30-04:00 Observing, Photographing, compareing instruments etc.
- 04:30-09:00 A well earned sleep ' Yawn,crash..snore '!

Now to the holiday itself. For the first week we could not use our normal sight, because of a cock-up by the owners . Who had double booked the sight with a group of under privaliged north London kids, (here-after referred to as little holigans). So, for the first week we had to either be careful not to leave things lying around or take our equipment up to Four-Counties point to observe. Most people choose the latter.

Four Counties, is a viewing point high on the south downs about three miles from the camp sight, with an all round, flat horizon and very dark skys. One unfortunate problem was that being a carpark and a viewing site it was very difficult to drive onto the site without ruining everybodys dark adaption. You almost need radar anyway, because the carpark is just stones on earth.

The weather stayed good for most of the holiday except for one or two nights when it stayed cloudy. I was most glad that it didn't get misty this year, maybe it was just to dry. During the second week a strong weather front passed over giving thick cloud cover and a some heavy rain. When this cleared on the last night it left good stable seeing and very little dust in the atmosphere. Perfect for a last night of meteor and deep sky observing.

Objects observed during the two week included; Planets (Jupiter, Saturn, Venus, Mercury and Neptune), Messier Objects (M15,M27,M31,M101), As well as some time taking guided astrophotos of Cygnus region, Cassioxia Isophotes, M15 and M31 as well as meteors, which didn't come out, and even sunspots. Hopefully some of which will be reproduced next month.

Visits, The best visit of the two weeks was to Cmdr.Henry Hatfields House in Seven Oaks to see his solar spectrohelioscope. This device is used to observe areas of the suns surface at very defined wavelenghts. The house itself was effectively designed around the instrument. In that the house is built on a hill and that instrument is built around two sets of lenses with definite focal lengths. So the distance from the edge of the patio, (where the light from the sun enters the first lens), to where the light is turned through 90 degrees to go along his work room is 19 feet. The lenght of his work room is the focal lenght of the second lens which is approx. 21 feet.

These dimentions give the size of his work room and thus the scale of the rooms in the rest of the house. since the steepness of the hill cannot be changed. While there we spent several hours getting a guiuded tour of the instrument and the house.

As well as optical observation Cmdr.Hatfield listens to the sun at two radio frequencies, one at 139MHz and one at approx. 1.6GHz. These are plotted on two paper roll plotters which were home built and cost £15. While we were there the 139MHz plotter began to show a sharp peek, quite quickly when the spectrohelioscope was re-adjusted we could see a massive ribbon flare in the center on the suns disk. This is a flare which is being blasted out of the sun, along a magnetic field line directly towards us, the detail visible was fantastic and when you fine tuned the wavelength knob by just half an Angstrom you can see the top of the flare disappear and the bottom get brighter, since the top is comming towards you and is blue shifted and the bottom is moving away and thus is red shifted.

At the end of the visit tea and biscuits became visible and with a large terraced garden to sit in we spent another, happy hour discussing solar and other phenomena with Henry.

In all it is a very enjoyable experience an well worth a visit next year, as is the astro-camp as a whole, even if like some people you only come down for one day or a weekend.

G. Marriott.

Neptune - Last stop for Voyager 2.

By J. Walsh.

It's done it again ! Voyager 2 the remarkable little probe launched from Earth 12 years ago, has sent back pictures and data from the Neptunian System to keep scientists busy for years to come. Voyager 2, like it's predecessor Voyager 1, was originally destined for Jupiter and Saturn. Jupiter on 9th August 1979 and Saturn, just over 2 years later, on 26th August 1981. So successful were these "Fly - By's", that it was decided that Voyager 2 should press on to Uranus, on 24th January 1986, and now, 3½ years later on 25th August 1989 Voyager 2 has arrived at it's last scheduled stop on it's tour of the outer Solar System.

Neptune was discovered 143 years ago by Johan Galle and Urbain Le Verrier, when it was found that Uranus was not behaving correctly in it's orbit, it was being pulled from it's normal orbital path. Certain calculations were made and Neptune was found in 1846. For the next 11 years Neptune will be the outmost of the known planets in the Solar System, until Pluto assumes it's place again in the year 2000.

So, what do we know about Neptune? What discoveries have Voyager 2 made? We do know that Neptune takes 165 years to orbit the Sun at a mean distance of 2,794,100,000 miles (4,496,600,000 KM). It is the smallest of the Gaseous Giant Worlds, but also the densest and has an Equatorial Diameter of 30,760 miles (49,500 KM).

Voyager 2, at last has settled the long standing argument of how long Neptunes Rotation Period (or Day) is. It has now been settled at 16 hours and 3 minutes, slightly longer than at first thought. Neptune, like it's big brother Jupiter, is a very dynamic world, with huge bands and depressions in it's Nitrogen/ Methane Atmosphere. The largest of these, and also the main feature of Neptunes disc is The Great Dark Spot which is easily the size of our own planet Earth. This is surrounded by White Cirrus Clouds, not seen on any planet since Voyager 2 left Earth. Another cloud system nick-named "The Scooter", a fast moving depression which moves around the planet in just a few hours, aptly named. As expected, another 6 Moons have been found, bringing the total now to 8 satellites. 2 of these we have known for a long time, both are exceptional throughout the Solar System. Triton is planet sized and moves around Neptune in a retrograde direction the only planet sized satellite known to do so, also, what looks like Gyser's or Volcano's have been detected on it's ever changing icy surface. Apart from Jupiters Io this is the only satellite in the Solar System showing this kind of activity. The other satellite is Neried, another "Odd-Ball", having the distinction of the satellite

with the most eccentric orbit around it's parent planet, in the Solar System. Of the six new moons discovered, five of them are very small, probably captured Asteroids from their size and shapes. The sixth, is a larger satellite about the size of Mimas, one of Uranus's moons, approximately 250 miles (400 KM) in Diameter. All six moons have still to be named. Five rings have been discovered around Neptune, again with some surprises, the rings seem very irregular and chunky in some areas and, very thin in other areas. The best view of the rings was when Voyager passed behind Neptune and the rings were seen in all their glorious detail, with the Sun shining through them. As Voyager left the Neptunian System, one of the last pictures taken, was that of Neptune and Triton, both in crescent phase, a truly magnificent end to this Neptune Encounter.

So as Voyager speeds out into outer space beyond our Solar System, her mission is still not ended, there is still enough nuclear fuel left to power her generators, and thus keeping in touch with Earth for another twenty to twenty five years.

Somehow I get the feeling that Voyagers encounter with outer space is still not over yet !!!

OPEN WEEKEND

This is a preliminary observing programme for the evenings. It is of course dependent on the weather, and completely variable on sky conditions.

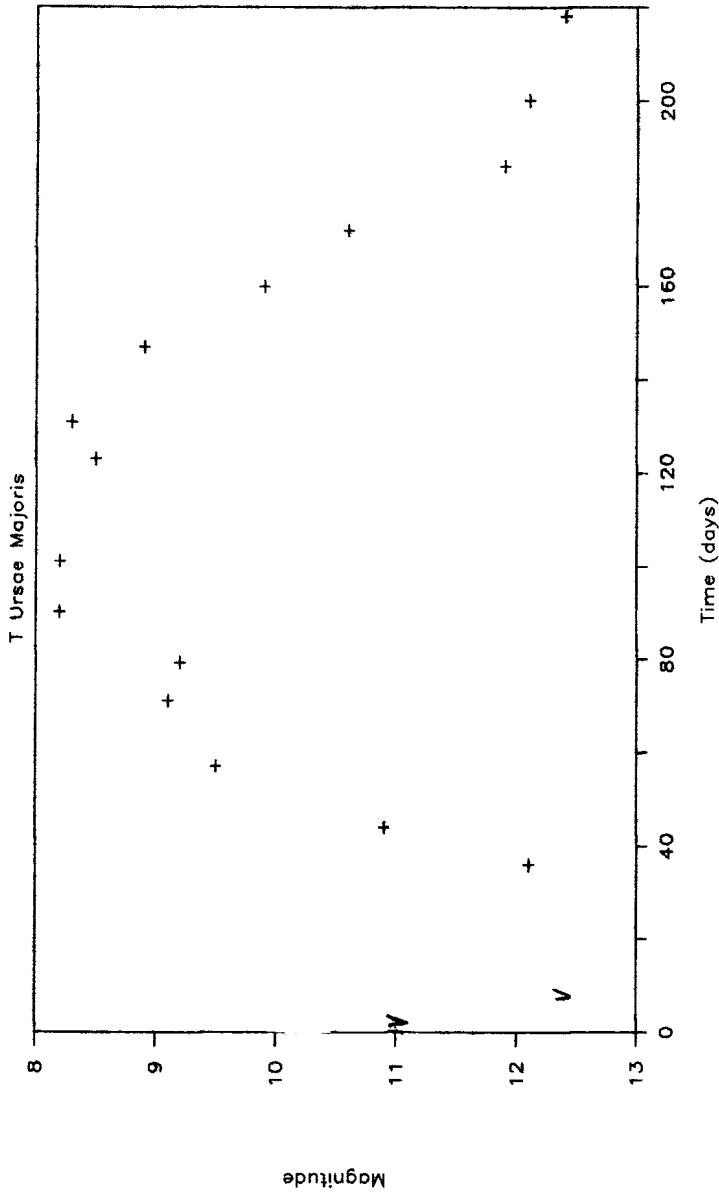
The order is from the west to the east sky.

		Venus	Moon	Saturn	Jupiter
Friday	6th	sets 19.50	sets 21.00	sets 22.50	rises 22.05
Saturday	7th	" "	" 22.14	" "	" "
Sunday	8th	" "	" 23.23	" "	" "
Monday	9th	" "	" 00.54	" "	" "

OBSERVING TIMES

		Venus	Moon	Saturn	Misc.	Jupiter
Friday	6th	early ?	19.45 - 20.45	20.45 - 21.30	21.30 - 22.15	late ?
Saturday	7th	" "	19.45 - 21.30	21.30 - 22.00	22.00 - 22.15	late ?
Sunday	8th	" "	19.45 - 21.30	21.30 - 22.00	22.00 - 22.15	late ?
Monday	9th	" "	19.45 - 21.30	21.30 - 22.00	22.00 - 22.15	late ?

VARIABLE STAR OBSERVATIONS



This light curve shows T Ursae Majoris from april to September this year. Virtually an entire cycle of this long period variable is shown, with the time of rise and fall being practically equal. Its average period of 257 days also ties in fairly well.

Mike Nicholls

PROGRAMME FOR OCTOBER

Mondays from 8pm GENERAL OBSERVATION SECTION

2-9-16 Mr R Newman [redacted] Felixstowe, IP11 9DY. Tel. Fel. [redacted]
 23-30 Mr J King [redacted], Felixstowe, IP11 9LQ. Tel. Fel. [redacted]

Tuesdays from 8pm GENERAL OBSERVATION SECTION

3-10-17 Mr R Newman [redacted] Felixstowe, IP11 9DY Tel. Fel. [redacted]
 24-31 Mr J King [redacted], Felixstowe, IP11 9LQ Tel. Fel. [redacted]

Wednesdays from 8pm NEBULA AND FAINT OBJECTS SECTION

4-11 Mr M Cook [redacted], Ipswich, IP4 5PZ Tel. [redacted]
 18-25 Mr D Payne [redacted], Wickham Market, IP13 OSD. Tel. [redacted]

Fridays from 8pm GENERAL OBSERVATION SECTION

6-13 Mr P R Richards [redacted], Ipswich, IP4 1QB. Tel. [redacted]
 20-27 Mr M Harlow [redacted], Trimley IP10 OXB. Tel. [redacted]
 Mr R A Lobbett [redacted], Felixstowe IP11 8UJ. Tel. [redacted]

All nights are open to all members, but, on nights other than Wednesday ring directors to confirm dates. [Directors will also be able to inform you of whether a group visit is taking place that evening.] All numbers, Ipswich (0473) unless otherwise indicated.

1989 COMMITTEE

CHAIRMAN	D Payne	(Address above)	Home: [redacted] Work: [redacted]
VICE CHAIRMAN	D Barnard	[redacted], Ipswich, IP4 5PP	Home: [redacted] Work: [redacted]
SECRETARY	R Gooding	[redacted], Ipswich, IP1 6AE.	Home: [redacted] Work: [redacted]
TREASURER	M Nicholls	[redacted], Capel St Mary, Ipswich, IP9 2EX.	Home: [redacted] Work: [redacted]
MAINTENANCE	M Cook	(Address above)	Home: [redacted] Work: [redacted]
JOURNAL CO-ORD	E Sims	[redacted], Ipswich IP1 4HA	Home: [redacted]
LIBRARIAN	P Richards	(Address above)	Home: [redacted] Work: [redacted]
EQUIPMENT CURATOR	J King	(Address above)	Home: [redacted]
SPECIAL EVENTS CO-ORD	A Smith	[redacted], Ipswich IP2 9ES	Home: [redacted] Work: [redacted]

Orwell Astronomical Society (Ipswich)

Orwell Park Observatory

Situated at Orwell Park School

* Naaton Nr Ipswich *

Open Evenings 1989

October 6th FRIDAY 7th SATURDAY 8th SUNDAY 9th MONDAY

From 7.30 p.m. to 10.00 p.m. Each Evening

Depending on conditions and available time, other night sky objects may be observed. Binoculars may be useful. (Weather permitting, slide show if cloudy.)

Entrance by donation:

Child: 25p.

O.A.P.: 25p.

Adult 50p.



Secretary:

Mr R. Gooding
168. Ashcroft Road
Ipswich