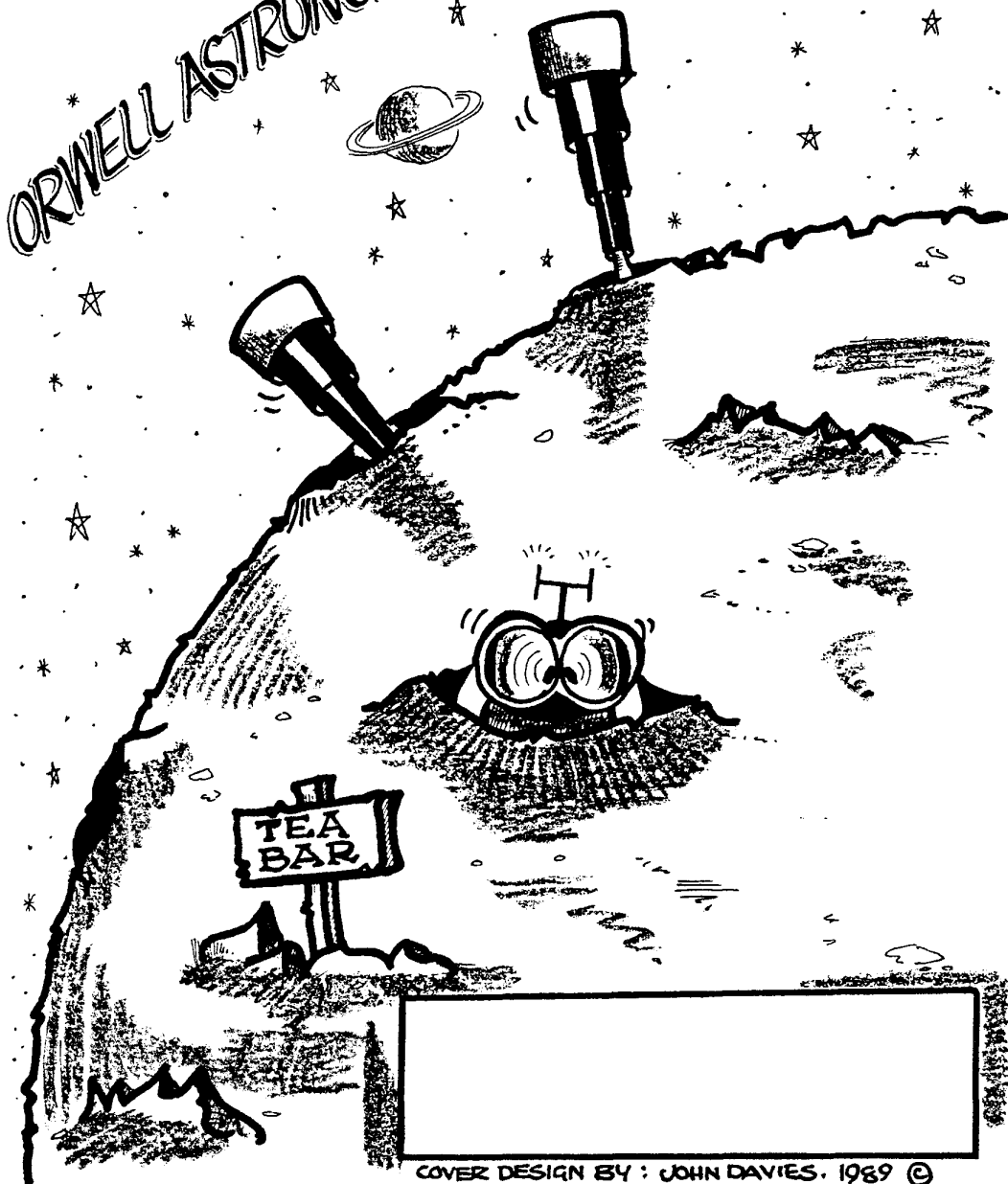


JUNE 1989

# ORWELL ASTRONOMICAL SOCIETY IPSWICH



COVER DESIGN BY : JOHN DAVIES. 1989 ©

## SOCIETY NEWS

### 1 Next Committee Meeting

The next meeting will be held on Saturday 15th July at the observatory, starting at 7.30. This is open to all members.

### 2 OPEN WEEKEND

This will be held from October 6,7,8,9th

## NIGHT SKY

(ALL TIMES G.M.T.)

SUN Rises approximately at 03.50  
Sets approximately at 20.20

### MOON



3rd



11th



19th



26th

MERCURY Mercury is visible in the morning sky. It will reach greatest western elongation on the 18th (23°). Mag. - 0.7

VENUS Venus will be visible in the evening sky. It will be setting at about 21.50 in mid month. Mag. -3.9

MARS Mars will be setting between at about 22.30 in mid month. Mag. 1..8.

JUPITER Jupiter will be in conjunction with the sun on the 9th. It will not be visible this month. Mag. -2.0

SATURN Saturn will be rising at 22.00 the start of the month. Mag. 0.1

URANUS Uranus is at opposition on the 24th. Mag 5.6.

NEPTUNE Neptune is located a 2 degrees to the east of Saturn.

R. GOODING

## Across the Solar System in One Evening!

David Payne

The opposition of Pluto and an eastern elongation of Mercury occurred at the beginning of May and Venus was an evening star setting about 30 minutes after sunset. Amazingly these astronomical events were accompanied by fine weather and I thought it would be an interesting challenge to see if all the major planets including Pluto could be observed in one evening.

The first attempt was made on Wednesday 3rd May at the Orwell Park Observatory. The first major challenge would be finding Venus which would be very low down and close to the Sun. We had found Mercury on the previous Wednesday, April 26th, at Orwell Park. It was first seen without optical aid by Martin Cook, he actually beat several of us searching with binoculars! This early success with Mercury the previous week spurred us to search the western sky for Venus - but in vain. Mercury was found again quite easily but low lying cloud obscured Venus, at least that's our excuse for failure. Later the same evening after observing Jupiter and Mars a search for Pluto was instigated. After finding the star field from the BAA handbook a faint star in the predicted position of Pluto could be seen. Interestingly this star was brighter than several of the background stars shown on the BAA chart. These latter stars were not visible on that evening of 3rd May due to a slight haze and light scatter from Felixstowe Dock Lights. See fig 1 for the position of the observed object deemed to be Pluto and the stars in the vicinity. The sure way of confirming a sighting of Pluto is to observe it on successive evenings and see if the suspected object moves.

Without the sighting of Venus on May 3rd the incentive to stay up and observe all the planets had waned and it was decided to retire.

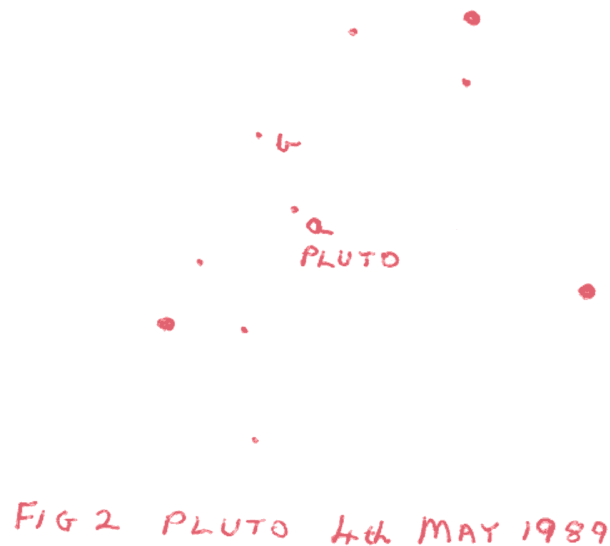
Surprisingly the evening of Thursday 4th May was even clearer with a cloudless sky down to the horizon. Such a clear evening could not be wasted and at about 7:30pm BST I started searching from home for Venus with my 11x80 binoculars. After 15 minutes of zero success I was beginning to feel that I was not going to find it. So loading up my favourite astronomy program into the trusty computer I fed in the date and time and looked up the altitude of Venus above the horizon from my observing position - a mere 7.5 degrees!

Rushing out with camera tripod in hand I set the binoculars and tripod up as quickly and accurately as possible, two totally incompatible activities of course, and scanned the tree tops (also at 7.5 degrees altitude) in the west where I expected Venus to be. Who said miracles don't happen, there was Venus shining brightly just above the tree tops. It actually looked bright enough to be visible by the unaided eye but even knowing exactly where to look I could not see it without binoculars. The time of sighting Venus was 8:05pm BST and it disappeared in the trees at 8:20pm I had found it with only 15 minutes to spare!

Having found Venus the challenge was really on to observe the remaining planets and I immediately began searching for Jupiter and Mercury. At 8:30pm BST I found Jupiter. With the binoculars mounted on the tripod the disk was clearly discernable but no moons were yet visible. Having found Jupiter next object was Mercury and Twenty minutes later there it was shining clearly in the 11x80s. I should explain at this point that I could not observe Venus, Mercury or Jupiter with my 10 inch reflector because the trees that almost obscured my view of Venus earlier subtend an altitude of nearer 20 degrees from the site of my telescope, completely obscuring these three planets.

After this initial success I decided to wait until the sky darkened before continuing. At 10:50pm BST I observed Mars with the 10inch reflector. Using 200x magnification a small gibbous disk was visible but no surface features were discernable. After observing Mars I spent half an hour leisurely scanning virgo searching out some of the brighter galaxies. The next planet was to be Pluto, however the sky was still quite bright and I had also to wait for it to clear a neighbours tree before observing.

At 11:30 the search for Pluto began. I quickly found the star fields seen the night before. With the darker observing site than at Orwell Park and possibly a clearer sky I could see several more stars in the field than the previous evening. the object observed the previous night had moved confirming it was Pluto. The star field shown in fig 2 was drawn at 00:10am 5th May and star 'a' is Pluto. Being completely honest, I have to say that at the time of drawing I did not think star 'a' was Pluto. I had convinced myself that it was star 'b'. I had not checked Pluto's predicted position on the evening of May 4 and was recalling the previous evenings observation from memory and had thought the track of Pluto took it further south than star 'a'. Also neither star 'a' or 'b' had been visible the previous evening and I concluded that star 'a' was a background star, shown on the BAA chart, that was now visible and star 'b' was Pluto. It was in fact the following Wednesday 10th May at the Orwell Park Observatory that I recognised the mistake. Using the photographic chart published in the magazine 'Astronomy' it was clear that the star 'b' could not be pluto and in fact was a close faint double star. The star 'a' was Pluto and the background star shown on the BAA chart had again not been visible. In retrospect it was a silly mistake that I should have spotted immediately. Interestingly in my observing notes of the night I had scribbled a note saying that



star 'b' was noticeably fainter than star 'a' and I remember thinking at the time that this was strange and wondered if an eclipse of Pluto by Charon could have occurred. Checking the predictions later showed this not to be the case and the simple solution of mistaken identity was the answer.

However I did observe and record Pluto that night even though at the time I had mentally associated the wrong star with Pluto. There now remained only Saturn, Uranus and Neptune to complete the set.

I found Uranus in 11x80 binoculars at 1:35am BST but because of the neighbours tree could not confirm this with the 10inch until 2:07am BST. In the 10 inch using powers of 150x and 280x a small featureless somewhat fuzzy, because of the low altitude, blue green disk was visible. Saturn was observed at 1:45am BST with binoculars, again due to the same tree it was 2:00am before it was observed with the 10 inch. Although it was almost on the horizon the rings were clearly seen with very little shimmering and Cassini's division was just discernable, unprecedented seeing conditions!

Finally at 2:30am Neptune was observed with the 10inch reflector I could not find it with the binoculars because of the low altitude and the associated extinction. However a small fuzzy disk could be discerned with 280x magnification in the 10inch that was marginally larger than the nearby stars of similar magnitude.

I am sure that observing all the planets in one evening is not new but it is the first time that I have ever achieved it and it was a thoroughly rewarding challenge to complete.

## ASTRO-CAMP 1989.

Astro-camp is an annual event organised by Norman Fisher, who also runs his own telescope making company. The camp is timed each year to be the two weeks near the end of July, when the moon is new. This year it is the last week in July and the first week in August.

with this months mag. I have enclosed more details. If you think you might be interested in coming, even for only a weekend, then get in touch with me or tell one of the directors. This is to help me gauge the numbers of people who might be coming.

G. Marriott.

Phone. Ips [redacted] after 5pm  
or Ips [redacted] 8am-4pm.

On the night of 12th May 1989, the star ZC1449 was "grazed" by the moon.

Having obtained detailed information of the graze from the BAA some months ago, the society formed a number of observing parties to record the event. As usual, the response from most of the society meant that only a limited number of sites could be chosen to set up telescopes.

This year the track passed close to both the OASI 10 inch refractor and the fixed observatory of our chairman, David Payne. However, because only a small number of members took part, the 10 inch could not be used.

At 2100hrs on the 12th May, the participants gathered at the home of Martin Cook. The sky was partially clouded but it was decided to make the 10 mile trip to the chosen site near Alderton.

On arrival at the site, part way along a farm track, the sky was clear apart from some clouds lurking ominously close to the Western horizon. Martin set up his 4.5 inch reflector and at a magnification of about 150 the star was located already close to the lunar limb. A frantic scramble ensued to set up the rest of the instruments, get the MSF Rugby clock running, ( this is a radio driven clock that is accurate to some thousandths of a second and gives a "bleep" every minute) and get the tape recorders running.

At precisely 2227hrs 11secs Martin noticed that the star had disappeared. Mike Barriskill, who was having some minor trouble with his recorder, missed the disappearance. It quickly became apparent that this was not in fact not going to be a graze, but a complete occultation. Incorrect predictions, mistaken map reading, or was this the whole point of graze observing ?

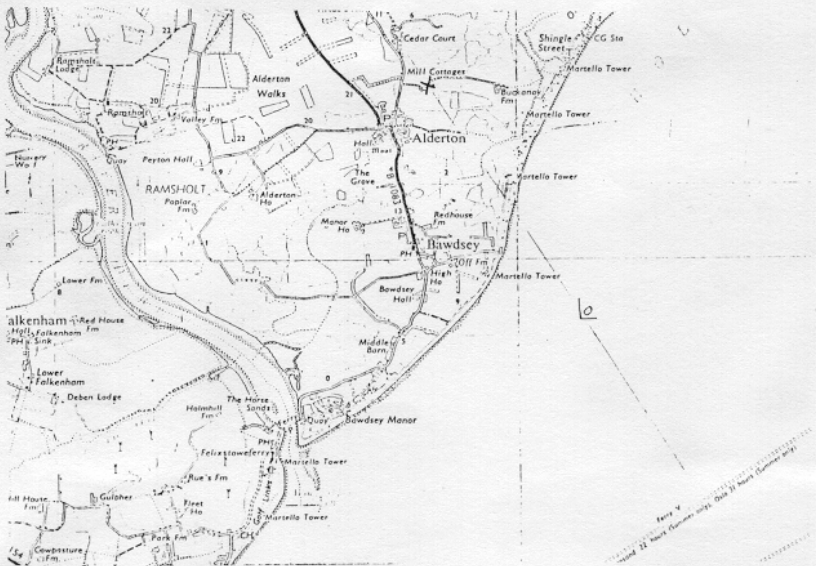
At 2230hrs 17secs Mike recorded the reappearance. ( I missed both events because of mechanical problems with my telescope mount )

Close inspection seems to indicate that we were positioned right on the track, N 52deg 1min 44secs, E 1deg 25mins 26secs, at a height above sea level of less than 10 meters.

A phone call to Dave, situated to the North East of the track, revealed that he had observed a complete MISS. (No fine details as yet)

A full report will be sent to the BAA of the observation.

A. J. Smith



At last, they're here : the sweaters and sweatshirts, with an OASI logo embroidered on them, arrived in mid-April. The logistics of establishing and confirming peoples orders combined with a long, first order, lead time from the suppliers.

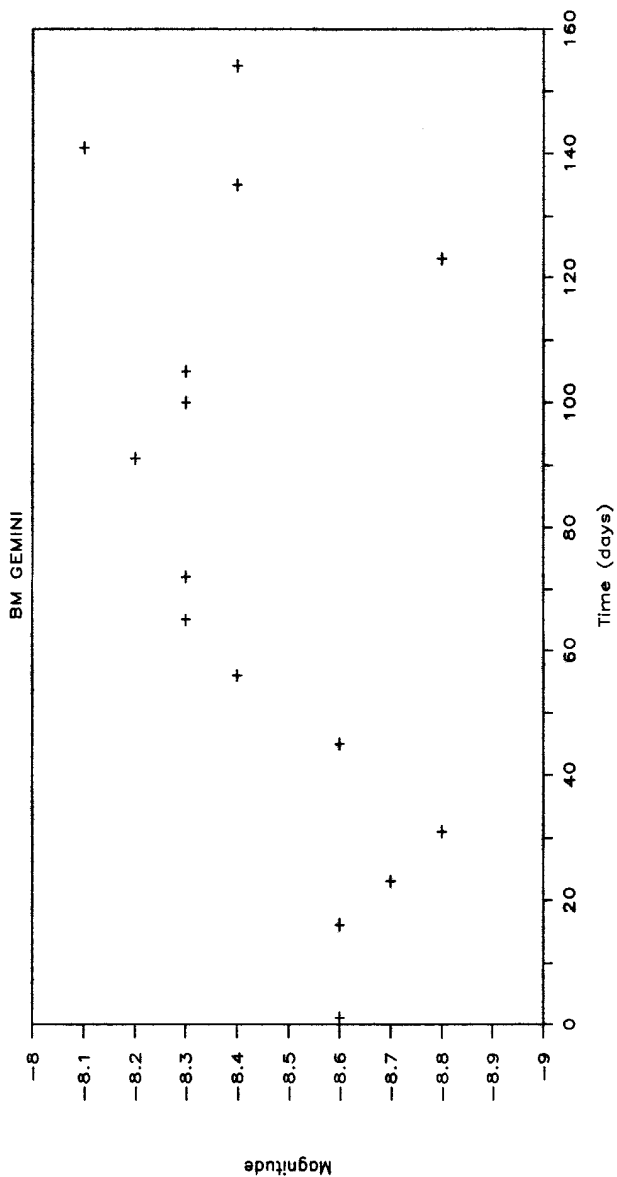
By the time this is published I should have been in contact with all those who ordered items this time around. If you haven't already got yours then its not to late. We will except new orders immediately, but we will only be able to obtain the garments when numbers are sufficient. There are a few spare items ( e.g. medium grey sweatshirts ), obtained as extras, which can be purchased at the observatory on wednesday nights.

Some interest has been shown in obtaining society ties ; numbers are insufficient to place an order at present but requests are being recorded as they come in.

For all orders and information come to the observatory on a wednesday evening, or, contact me, Peter Richards, or Roy Gooding at the addresses given on the back page.

THEY'RE HERE !

# VARIABLE STAR OBSERVATIONS



This light curve shows BM Geminorum from December to May this year. The star is unclassified because little is understood about it. It is rich in carbon but does not behave in the same manner as some other carbon stars. Imperial College London are making a study of it and these visual observations will be passed on to them

Mike Nicholls

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Mondays from 8pm		GENERAL OBSERVATION SECTION	
5-12	Mr R Newman	[Redacted]	Felixstowe, IP11 9DY. Tel. Fel. [Redacted]
19-26	Mr J King	[Redacted]	, Felixstowe, IP11 9LQ. Tel. Fel. [Redacted]
Tuesdays from 8pm		GENERAL OBSERVATION SECTION	
6-13	Mr R Newman	[Redacted]	Felixstowe, IP11 9DY Tel. Fel. [Redacted]
20-27	Mr J King	[Redacted]	, Felixstowe, IP11 9LQ Tel. Fel. [Redacted]
Wednesdays from 8pm		NEBULA AND FAINT OBJECTS SECTION	
7-14	Mr M Cook	[Redacted]	, Ipswich, IP4 5PZ Tel. [Redacted]
21-28	Mr D Payne	[Redacted]	, Wickham Market, IP13 OSD. Tel. W [Redacted]
Fridays from 8pm		GENERAL OBSERVATION SECTION	
9-16	Mr P R Richards	[Redacted]	, Ipswich, IP4 10B. Tel. [Redacted]
23-30	Mr M Harlow	[Redacted]	, Trimley IP10 0XB. 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 Bernard	[Redacted], Ipswich, IP4 5PP	Home: [Redacted] Work: [Redacted]
SECRETARY	R Gooding	[Redacted], Ipswich, IP1 6AE.	Home: [Redacted] Work: [Redacted]
TREASURER	Mr Nicholls	[Redacted], Capel St Mary, Ipswich, IP9 2EX.	Home: [Redacted] Work: [Redacted]
MAINTENANCE	Mr 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	A Smith	[Redacted], Ipswich IP2 9ES	Home: [Redacted]