

# ORWELL ASTRONOMICAL SOCIETY, IPSWICH.

# SOCIETY NEWS

## 1 The F.A.S. Convention at Herstmonceux

This year will be the last F.A.S. meeting at Herstmonceux. It is on Saturday 8th October. If you have not been to any of these yet this will be your last chance. I will give more details when I have them.

## 2 THE NEXT COMMITTEE MEETING WILL BE ON SATURDAY 17th SEPTEMBER

The next meeting will start at 19.30 at the observatory. All members are welcome to attend.

Q.A.S.I.

# THE NIGHT SKY

(all times G.M.T.)

**SUN** The sun rises at approximately at 05.10 to 06.00  
The sun sets at approximately at 19.00 to 17.50

## MOON



3rd



11th



19th



25th

**MERCURY** This month Mercury is an evening object, but is too close to the Sun in the sky and will not be observable this month. Greatest elongation is on the 15th (27').

**VENUS** Venus is visible in the morning sky. It rises at 01.00 at the beginning of the month. Mag. -4.1.

**MARS** Mars will be at opposition on the 28th. Mars will be at Mag. -2.8.

**JUPITER** Rises at 20.30 in mid month. Mag. -2.5.

**SATURN** Rises before sunset and sets at 20.30 in mid month. Mag. 0.5.

**URANUS** Sets at similar times to Saturn. Mag. 5.9

**NEPTUNE** Neptune follows behind Uranus by about half an hour. Mag. 7.7

R. Gooding

1 SEPTEMBER 1988

Q.A.S.I.  
CLOSED FOR  
TWO WEEKS  
HOLIDAY

LOOK MATE I DON'T  
GIVE A CONSTALATION  
WHERE YOUR FROM  
WE'RE CLOSED!



David Payne

The 'Red Planet' Mars is at opposition on September 28th and has not been better placed for observations from the northern hemisphere since 1725. The planet will reach magnitude -2.8, just brighter than Jupiter, and an angular diameter of 23.7 seconds of arc. This opposition occurs when Mars is near perihelion (closest to the sun) and the angular diameter is very close to the maximum that can be reached. What makes this opposition so special is that this large angular diameter is combined with a relatively high altitude (Mars will be close to the celestial equator at opposition). This should mean much better 'seeing' than usually occurs with perihelic oppositions when Mars is well south of the equator.

There is an excellent article by American astronomer Thomas Cave in the September issue of 'Astronomy Now' describing observation techniques for Mars and is well worth reading.

Because of the close opposition even small telescopes should be capable of revealing the major features on the surface of Mars such as the polar caps and the dusky area Sytis Major. However a six inch reflector is probable the smallest useful aperture for observing finer detail and ideally a ten inch or greater should be used. Regular observations should already be underway and useful results should be attainable until the new year. Because of the uniqueness of this Observation there is an 'International Mars Patrol' (IMP) sponsored by the BAA, the Planetary Society, the Association of Lunar & Planetary Observers, the OAA and the Jet Propulsion Laboratory. The IMP have agreed a standard disk size for the planet Mars of 42 millimetres diameter. It is strongly recommended that observers making drawings of the planet use this size regardless of telescope size used.

We would like members making observations of Mars to send copies to the Society so that we can publish them in the journal. Also we can act as coordinator and forward observations to the BAA.

Many people have their moans and groans about Shift Work, not being at home nights, having to work Weekends and so on. But if you think about it positively few other people have the opportunity to study the early morning sky without putting oneself out and having to get up at 3 or 4 o'clock in the morning. Being a Security Officer in a part of Britain where you cannot get much further East, with a high proportion of my duties being outside work, I can study the morning sky (around my duties of course) in detail.

At this moment in time ( July 7th 1988 ) the sky is clear from horizon to horizon (very rare on the East coast) it is twilight, one of the best times I like looking at the Planets is when the Stars are fading. Nearest to the Eastern horizon is the brilliant Planet Venus at magnitude -4.5, it should be showing a crescent phase through a telescope as it is just past Inferior Conjunction. Through the Binoculars you cannot see the crescent, but you can see it is not a disc either. Almost in line but at a slightly higher altitude is the largest of the planets Jupiter now increasing in magnitude at - 2.2, only a stellar object through Binoculars, but through a Telescope a magnificent sight, a definite oblate disc with bands and it's 4 largest Moons Io, Ganymede, Callisto and Europa. It is a shame I have not got my Telescope with me. Directly above in the sky is our companion in space the Moon at just under Dictomy ( half phase ), the Moon is always a good subject with Binoculars especially along it's Terminator, you can see the highlights of the various Craters, Plains and Mountains. Also you can see quite a lot of detail along the Limb of the Moon as well. In the South Western sky behind me is the planet that will make the Headlines this year, tiny Red Mars during the last month Mars has brightened by nearly a whole magnitude to - 1.2 and when it reaches opposition this September at a magnitude of - 2.8, it will be closer to Earth than at any time for the rest of this century. Through Binoculars Mars looks like a Red stellar object, but through the Telescope Mars is a definite Red disc with it's South Pole clearly visible. At opposition Mars will come to a distance of 36,390,000 miles ( 59,000,000 KM ) perhaps then, some surface features may then be visible.

I look at my watch, time for me to resume my duties. I look for the last time at the beautiful arc of Planets now steadily fading in the Morning light, as I put the Binoculars away I think to myself Shift Work is not so bad after all.

## Astro Camp '88

Astro camp is held each year at the Bernard Sunley Activity Centre in the heart of the Ashdown Forest in Sussex, just south of East Grinstead. The camping facilities there are spartan but clean.

The camp is usually timed to coincide with a new moon and hopefully the Perseid meteor storm, and so this year it ran from the 6th-20th of August. During these two weeks the nights were spent either observing or drinking, when cloudy. The days though were spent either resting from the previous night or taking part in one of the many organized activities which included a guided tour of the RGO at Herstmonceux, a sports day and bar-b-que, a paper aeroplane flying competition; and each evening before dinner an hour can be spent in the indoor heated swimmingpool up at the centre.

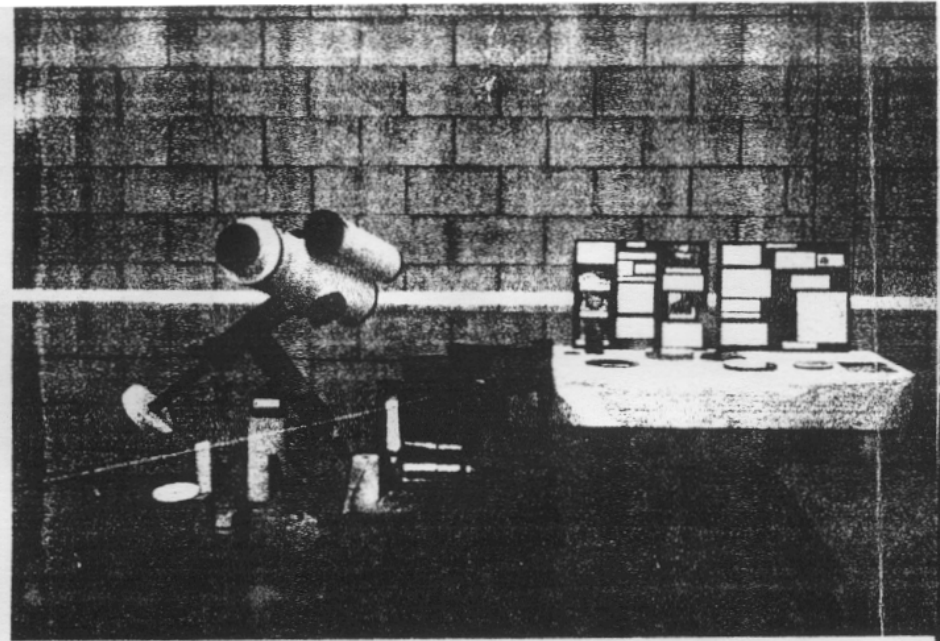
Apart from myself, representing the OASI there were quite a few other societies present, including Brighton, Harringay, Mid Kent West Yorkshire and Croydon. With numbers of members ranging from 2 to 10.

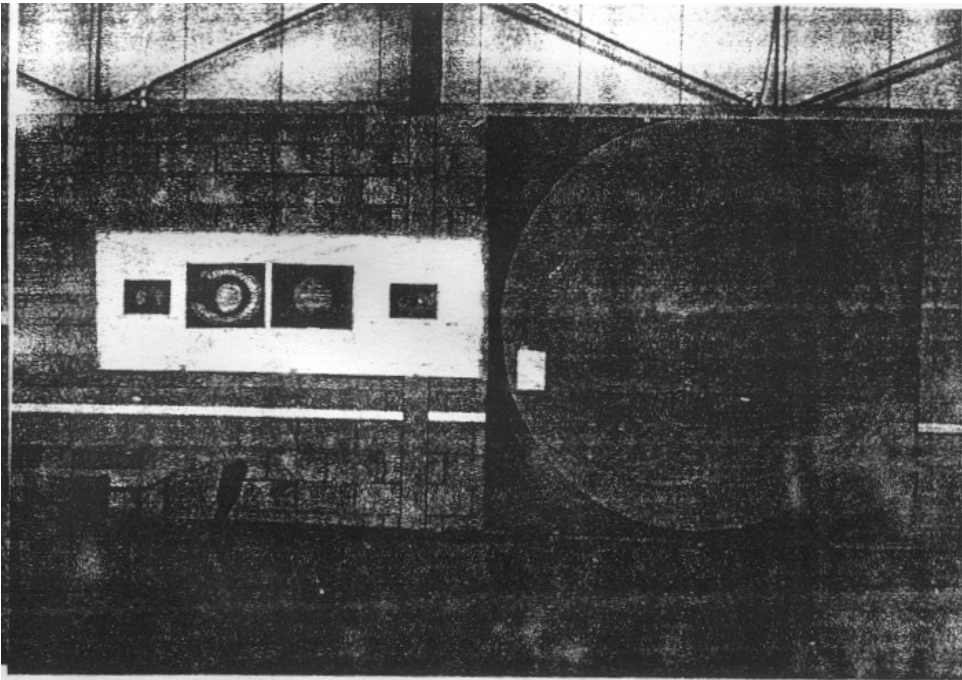
When the skys were clear the telescope field became alive with observers eager to get that view they always wanted of so-and-so away from city lights. The number and variety of scopes used was astonishing, in the line of refractors, sizes from a home-built 3" f15 to a huge 8" f15 on a tripod standing 8.5 feet tall, and in the middle two 5" scopes, one an f15 folded refractor made by UNITRON the other an f5 Monocular the owner of which has another lens at home to make 5" Binoculars. Not to be out done there were reflectors in every size from 6" to 10" at f6 to f8, both home built and commercial with at the far end dwarfing everything else including it's owner was a 14" f5 equatorially mounted newtonian, owned and built by Alan Snell from the Harringay A.S. There was also a 10" Meade Schmidt-Cassegrain owned by one society there, but even with a 2½ foot long dew tube it could only stay operational for 10 mins. at a time.

Friday night and the Perseids was the highlight of the week and so I spent the first part of the night watching for meteors, as all around me calls of "There's another one.", shortly followed by the cry "Oh shut up.", from the unlucky few who missed the transient sight. Later on I tagged along with another observer from Brighton to a better observing site called four counties point, called such because you can see the counties of East & west sussex, Surrey and Kent. But it being dark I cannot comment on that. The view from there is total since it is the highest point for 25 miles around and so the horizon is almost flat. The rest of the night was spent observing the meteors and taking pictures on a tracking platform. When we returned to the camp site just before dawn where one eagle eyed observer informed me that during the night he had spotted 275 meteors.

So if you think the astro camp is for you get in touch with Norman Fisher Ltd. at the address in Astronomy Now and he will sent you details of next years camp.

Gary Marriott





Answers to OASI Quiz - published last month

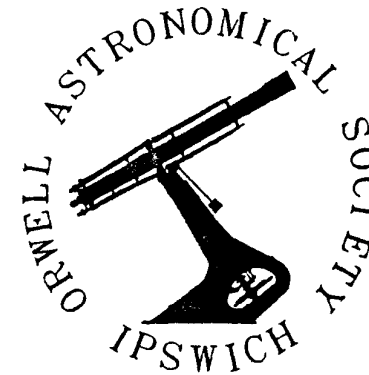
Question	Correct answer
1 Type of main telescope in the club	<u>Refractor</u>
2 Who paid for the construction of the observatory in 1872	<u>Colonel Tomline</u>
3 In general a variable star is a star whose	<u>Brightness varies</u>
4 The Royal Greenwich observatory is currently located in	<u>Hertsmonceux</u>
5 The average height of a meteor is	<u>100 km</u>
6 Which grinding powder is generally used for the second stage of grinding	<u>220 grade</u>
7 The Horsehead nebulae is part of the following constellation	<u>Orion</u>
8 From the variable stars shown which star varies the greatest	<u>R. Coronae Borealis</u>
9 In general, the length of the tube of a Schmidt camera is NB. FL = focal length	<u>Twice mirror's FL</u>
10 When was the OASI formed	<u>1967</u>
11 When was John Plummer's book an "Introduction to Astronomy" published	<u>1873</u>
12 Planet with the average closest orbit to Earth's orbit	<u>Venus</u>
13 Diameter of Observatory's Dome	<u>20 ft</u>
14 Approximately how many Earth's will fit into the sun	<u>1 Million</u>
15 Which is the furthest distance	<u>Parsec</u>
16 The small telescope in room adjacent to the main telescope is	<u>Transit scope</u>

- 17 The plough is not a constellation in its own right, it is part of Ursa Major
- 18 Diameter of main OASI telescope's objective 10"
- 19 Size of club's largest binoculars 11 \* 80
- 20 Club's main telescope is mounted on an Equatorial mounting
- 21 Name the largest planet with rings Jupiter
- 22 In this country, the sun and moon both set In the West
- 23 What would the approximate diameter of the solar system be given that the sun is 3m in diameter 25 km
- 24 What is the technique used to measure the largest distances within the universe Red shift
- 25 The average diameter of the Earth's moon is 3476 km
- 26 On what part of the nearside of the moon is the Sinus Medii Centre
- 27 Who had Orwell Park Mansion re-built in the 18th century Francis Vernon
- 28 How many lenses are in the middle of the tube of the OASI large telescope None
- 29 If an astronomical telescope is looking at a smoking chimney on a still day, which way will the smoke appear to be moving Downwards
- 30 Halley's comet returns approximately every 76 years

R.A.Lobbett

## SOCIETY SWEATERS, SWEATSHIRTS,

## SPORTS SHIRTS.



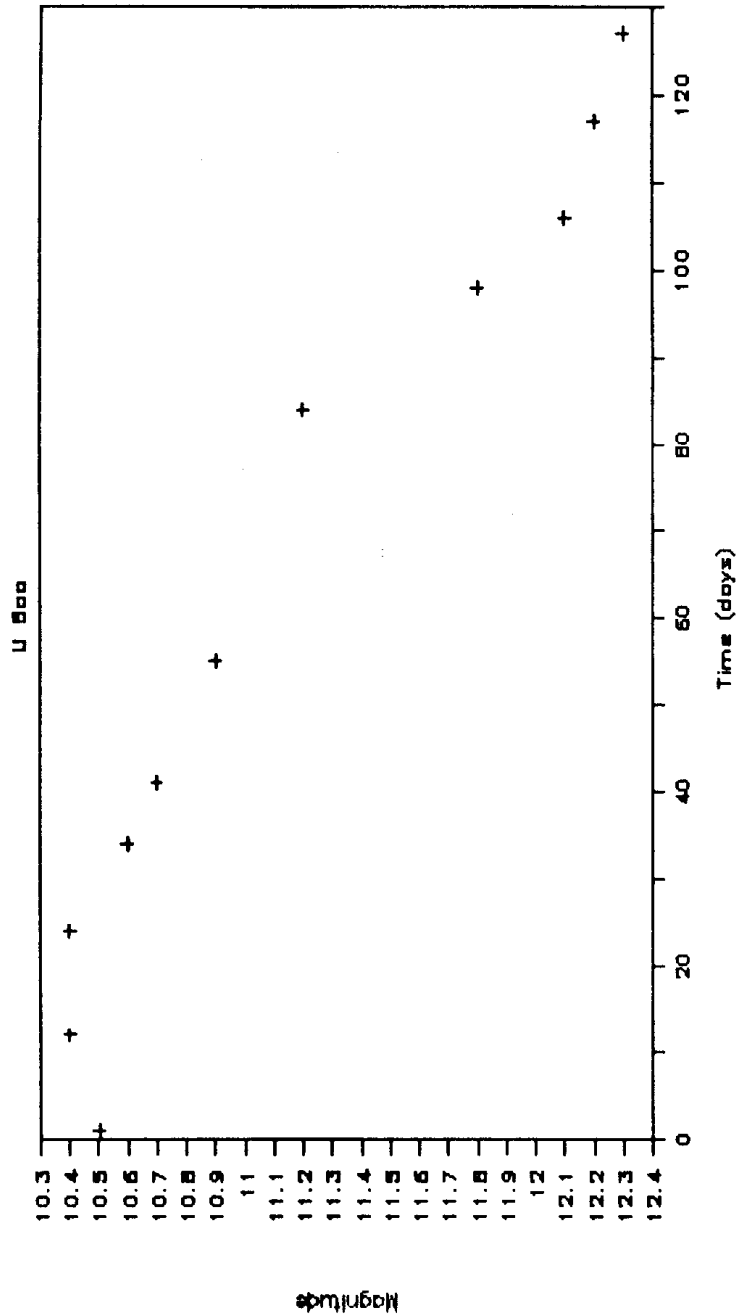
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PRICES ( MAX ) :  
SWEATERS.....£15  
SWEATSHIRTS..£10  
SPORTS SHIRTS..£10

PLEASE CONTACT R.Goodling TO PLACE YOUR ORDER  
OR COME TO THE OBSERVATORY ON A WEDNESDAY

# Variable Star Observations



This light curve shows U Bootis from April to August this year. This star, a semi-regular variable, is shown passing the maximum brightness and fading.

## PROGRAMME FOR SEPTEMBER

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]
	Mr N Taylor	[Redacted], Trimley IP10 0XY	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 / CLUB NIGHT	
7-14	Mr M Cook	[Redacted], Ipswich IP4 5PZ	Tel. [Redacted]
21-28	Mr D Payne	[Redacted], Wickham Market IP13 0SD	Tel. [Redacted]
Fridays from 8pm		GENERAL OBSERVATION SECTION	
2-16	Mr P R Richards	[Redacted], Ipswich IP1 2HW	Tel. [Redacted]
30	Mr M Harlow	[Redacted], Trimley IP10 0XB	Tel. [Redacted]
	Mr R A Lobbett	[Redacted], Felixstowe IP11 8UJ	Tel. [Redacted]

On nights other than Wednesday ring directors to confirm dates.

### 1988 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]
TREASURER	M Nicholls	[Redacted], Capel St Mary, Ipswich IP9 2EX	Home: [Redacted] Work: [Redacted]
MAINTENANCE	M Cook	( Address above )	Home: [Redacted] Work: [Redacted]
JOURNAL	E Sims	[Redacted], Ipswich IP1 4HA	Home: [Redacted]
CO-ORD			
LIBRARIAN	P Richards	( Address above )	Home: [Redacted] Work: [Redacted]
EQUIPMENT	R Newman	( Address above )	Home: [Redacted] Work: [Redacted]
CURATOR			
SPECIAL	N Taylor	( Address above )	Home: [Redacted] Work: [Redacted]
EVENTS			