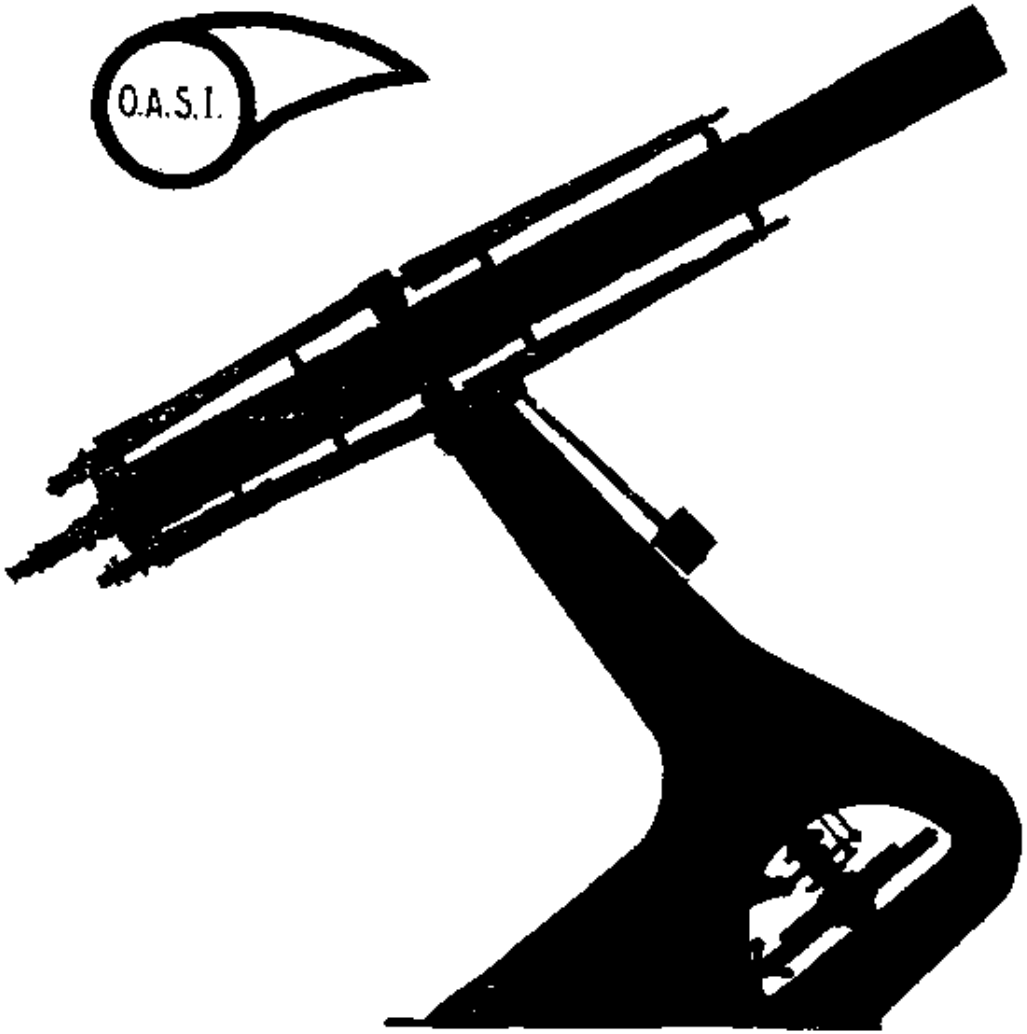
ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

SEPTEMBER 1985



The Orwell Park Observatory 10 inch Astronomical Telescope at Nacton near Ipswich

SOCIETY NEWS

1. F.A.S. Convention at Herstmonceux:
The annual F.A.S. Convention at Herstmonceux is being held on Saturday, 5th October. Tickets cost £2.50 plus transport costs. Interested members please contact R.Gooding.
2. Halley's Comet Lecture
This has been arranged for 8.00 p.m. Friday, 1st November in the Meeting Room at the Friends' Meeting House, Fonnereau Road. The speaker will be Mr. M. Hendrie.
3. Open Week
Open Week this year will be held on the four nights of November 13th ot 16th inclusive. The principal aim will be to give the general public an opportunity to observe Halley's Comet.
4. Committee Meeting
The next meeting will be held on Saturday, 7th September from 7.30 p.m. in the club room. All members welcome.

NIGHT SKY

Constellations (all times G.M.T.)

Early Autumn /late Summer is about the best time of the year to observe the Milky Way. It snakes its way from the South through Aquila, Cygnus up to the zenith and over to the North through Perseus and Auriga.

Sun Rises approx. between 05.10 - 06.00
Sets approx. between 19.00 - 17.40

Moon 7th 14th 21st 29th

Occultations

5th	ZC 423	mag. 6.4	R	1hr. 0.6m
6th	534	" 6.0	R	3hr.37.3m
11th	1251	" 5.9	R	4hr.23.0m
24th	3102	" 6.9	D	20hr.57.1m

Mercury Superior conjunction on 30th
Visible in morning sky before sunrise.

Venus Visible in morning sky, rising about 03.00 in mid month mag. -3.4.

Mars Rises at about 03.40 in mid month, Mag.2.0.

Jupiter Sets at about 01.00 in mid month, Mag.-.2.3.

Saturn Sets at about 20.00 in mid month, Mag. 0.8.

Uranus Sets at about 21.00 in mid month, Mag. 5.8.

Neptune Sets at about 22.00 in mid month, Mag. 7.7.

R.Wooding.

A 'QUIET' NIGHT AT ORWELL PARK OBSERVATORY

"Quiet please, sound on!" The stillness of the evening air was interrupted by a single bleep from a tape recorder. "Roll camera," a second voice boomed back, "camera rolling." Scene 50 take one, a clap board was closed with a sharp report. "Action". Everyone waited with baited breath for the ensuing drama unfolding before us. This is not a description of some new multi-million pound film being shot, but a prospective Steven Spielberg directing a film crew in the dome on Wednesday, 14th August, taking considerable glee in using his entire repertoire of movie cliches. The subject being filmed was ostensibly sitting on our observing chair, looking vaguely at the telescope eyepiece, with the floodlights pointing in his direction and being completely blinded whilst experiencing multi-coloured blobs floating in front of both eyes.

The evening in question had started with a promise of a good observing session. The sky was a deep blue without a single cloud in sight, a spectacle that is rarely glimpsed on Wednesdays. A group from the National Association of Gifted Children were staying at Orwell Park School during the week and had requested a visit to the observatory. Soon after our arrival, a quiet discussion in the club room was interrupted by a woman appearing at the door looking completely lost and absent mindedly eyeing our blank display boards. Assuming she was an organiser from the visiting group we invited her in. Her first statement made no sence to anyone. "I am looking for the Questar Group and a film camera. Have you seen them?"

Martin Cook, John Hood and I started scratching our heads, thinking why would someone want to bring a film camera and a Questar to the observatory without telling anyone. (To the uninitiated, a Questar is a very expensive American telescope). A few sentences followed where the two parties found themselves talking completely at cross purposes. However, it transpired that Questar was the name of the group that was visiting us that evening, and some of their organisers were making a film of the group's activities during the week. The woman was asked to bring up her group while we made our way up to the dome in preparation for the ensuing onslaught from dozens of children.

Before the visitors arrived the dome shutter was opened and we proceeded to climb up unto the stairwell roof. The roof being about 70 feet above ground level offers an excellent vantage point for observing the surrounding countryside which was taken full advantage of. The sun, by this time had slid behind a bank of distant trees, making any sunspot observations impossible. Within 10 minutes a noise was heard eminating from the bottom of the spiral staircase, which became louder by the second. At first only about 10 children arrived, along with someone with a very expensive camera, quickly followed by a wooden tripod large enough for a mobile 10" reflector, two flood lights with stands to match, a large portable reel to reel tape recorder together with a 2 foot long rifle mike and numerous mains extension leads. Before the film equipment could be assembled on one side of the telescope the dome floor had filled with at least forty children, about eight group organisers and five society members. The noise in the dome quickly reached deafening proportions, which was only silenced after the arrival of David Payne, when he proceeded to give details of the telescope, followed by a brief geography of the solar system.

By the time David had finished, Saturn had been located. Moving the telescope and observing chair is usually an easy job in an empty dome. The problems in positioning everything with the dome floor completely covered with people and equipment can only be appreciated if experienced. No matter how many times the visitors were asked politely to move round, there was always one who was in the way. No sooner had one lot of children been asked to come off the observing chair so that it could be moved, a second batch miraculously appeared and proceeded to clamber all over it again. In due course, Saturn was found and an orderly queue was formed, giving every one a look at the planet.

At this time, the film crew, which numbered four, had decided that it would be a good idea to film the observatory from the outside, so with logic best known to them, proceeded to dis-assemble most of their kit and disappeared downstairs. Why this could not have been achieved during the afternoon when the sun was out was never fully explained. After about half an hour, having presumably satisfied their desires, they returned.

The majority of the visitors left after observing Saturn. This was the time the film crew decided to start their work. Before each shot, much time was spent in focusing the camera, re-adjusting the light, followed by an indeterminate time spent waving an exposure meter about. Having filmed several children at the eye-piece, we were requested to move the telescope. The members of the film crew had obviously never visited many observatories, because they endevoured to dust the telescope with great energy, much to our amusement. Don't they know that any self-respecting observatory is always covered in a layer of dust, brought about through lack of use of the equipment due to continuous inclement weather!

The two final shots involved opening the shutter and rotating the dome, along with suitable sound effects. The crew insisted on recording the sound of the shutter opening, apparently oblivious to the fact that it makes the same noise in both directions. When the sound recordist plays her tape back she will hear a continuous hum which may be put down to electrical interference; in fact, the telescope's electric drive had been inadvertently left on.

Filming had by now taken over an hour, by which time all society members present were beginning to get quite agitated over not being able to take full advantage of the best seeing conditions for many months. By 11.00 p.m. we had the dome all to ourselves again.

The first target was Jupiter followed at a leisurely pace by M13 and M57. Stars could be resolved almost to the centre of M13. If it had not been for the daily routine of work everyone would have stayed until Orion had risen and attempted to look for Halley's Comet. However, the dome was closed at 12.15 a.m. Walking to the cars, the sky was clear enough to see to the naked eye limit of magnitude 6 with the Milky Way shining with its full splendour overhead.

R. Gooding.

On Sunday 11th August I went on a field trip for the Observation of the Perseids and the graze occultation on 12th August at 01-37UT.
I took my wife two children and a tent to a camp site at East Runcton which was on top of the cliffs and very exposed to the wind and rain. This site was just off the predicted line of the occultation.
During the evening the clouds disappeared leaving the sky clear. By 01-00am BST the sky was clear and as black as pitch. The Milky-Way was like a ribbon of lace.
At exactly 01-00 BST I saw a fire-ball to the south which was brighter than Venus. Then I got to counting meteors. Between 01-00 and 02-00 I counted 12 meteors even though I was trying to set up my telescope. I had to give up because the wind was gusting to gale force. Next I tried to find the star that was to graze the moon using binoculars but this didn't work either so I carried on counting meteors. Between 02-00 and 03-00 I counted 8 more meteors then gave up and went to bed.

Eric Sims

Predictions for Comet Giacobini-Zinner

	R.A.	Dec.	Mag.
1st	5h 07.2m	+37 41'	8.0
5th	5h 26.7m	+32 16'	8.0
10th	5h 47.9m	+25 17'	8.1
15th	6h 06.0m	+18 16'	8.2
20th	6h 21.6m	+11 31'	8.3
25th	6h 35.0m	+05 11'	8.5
30th	6h 46.6m	-00 38'	8.7

(M Cook)

Predictions for Comet Halley

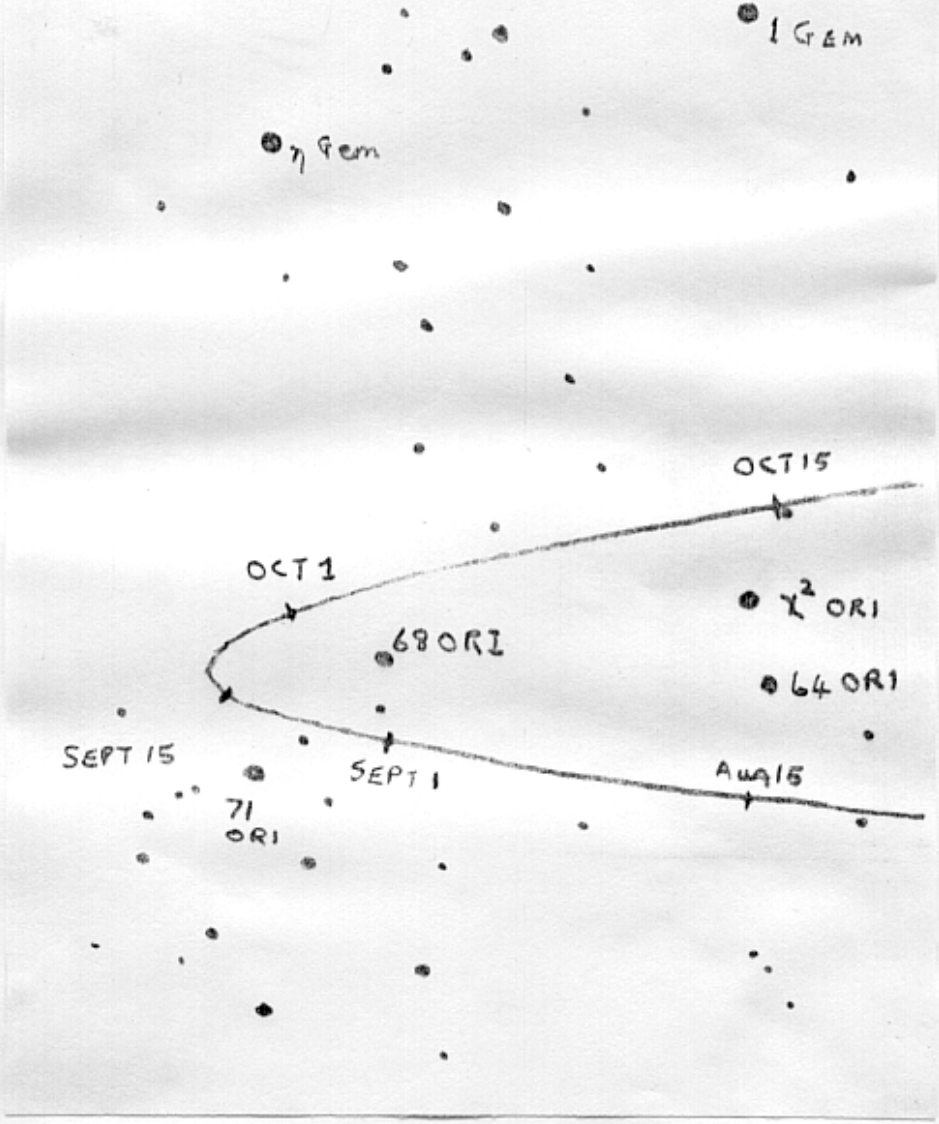
	R.A.	Dec.	Mag.
1st	6h 08.8m	+19 21'	12.7
5th	6h 10.0m	+19 25'	12.5
10th	6h 11.5m	+19 30'	12.3
15th	6h 12.5m	+19 36'	12.0
20th	6h 13.0m	+19 42'	11.8
25th	6h 12.8m	+19 50'	11.5
30th	6h 11.8m	+19 59'	11.2

Comet Halley: Observing Projects With the 10" Refractor D B Payne

Comet Halley should now be with in range of the 10" Orwell Refractor. A first attempt to find the comet with the 10" was made during the bank holiday weekend in the early hours of Sunday morning. Unfortunately this attempt failed due to a combination of: too faint an object, too low an altitude, slightly hazy seeing and tired observers. However the comet is brightening rapidly and should be a magnitude brighter (12.0) by mid September. We will be trying again soon!

Among the observing projects being considered for Halley's Comet are: 1. a photographic record using both colour and black and white film following, as far as possible, the guide lines laid down in by the International Halley Watch. 2. As many drawings as possible made at the 10" refractor. This latter project is particularly relevant to the Orwell park observatory because drawings made with large long focus refractors can be directly compared with drawings made at the last apparition in 1909-1911. The observing projects and program will be discussed at the next committee meeting, if you want to make a contribution to observations of this once in a life time event please come along.

For those of you wanting to try and find the comet with your own telescopes (a six inch or greater will almost certainly be required through September) the chart below shows the position of the comet in Orion during September.



A quick guide to the observation of Halley's Comet:- CONT. R.M. CHEESMAN

Date	Comet's Magnitude	how to observe	Notes
1986			
Mar. 1st.	4.4	naked eye	Tail might be seen on S.E. horizon before dawn.
Mar. 15th.	4.5.	naked eye	Comet in Sagittarius; too far south to observe in U.K..
Mar. 30th	4.2	naked eye	Too far south of equator for observing in the U.K.
Apr. 11th	4.0	naked eye	nearest to Earth. Best time to view if you live in Southern Hemisphere.
Apr. 30th	5.0	naked eye	Comet in Hydra. Comet re-appears in U.K. sky. Lunar eclipse on 24th. Good viewing time.
May 15th	7.4	naked eye/ binoculars.	
May 30th	8.5	binoculars	

Date	Comet's Magnitude	how to observe	Notes
June 15th	9.4	telescope	)
July 15th	10.7	telescope	) Comet in in morning sky at distance 350 million
Aug. 15th	11.6	telescope	) miles. Only visible in large
Aug. 30th.	11.9	telescope	) telescopes
2061 July 29th.			Comet returns, but for us in the Northern Hemisphere viewing will be even worse than the 1985/1986 apperition. So do not forget to have a good look this time as the next time Halley's Comet returns you might not be able to see it!!!

Many amateur astronomical societies throughout the U.K. will be opening up their observatories for the general public to have a look at Halley's Comet through their telescopes. If you would like further information please contact:

Royston Cheesman,
123 Digby Road,
Corringham,
Stanford-le-Hope,
Essex.
SS17 9BU

Visits in September

Wednesday September 11th;
Visit by Norwich Astronomical Society.
Tuesday September 24th;
Visit by Kesgrave Home & Away Club at 8pm.

Herstmonceaux Trip

A reminder that the annual trip to Herstmonceaux is to take place on Saturday October 5th.

Open Committee Meeting

All members are invited to this meeting on Saturday September 7th. The main item on the agenda will be National Astronomy Week (November 9th to 16th inclusive). The observatory will be open to members of the public on November 13th to 16th inclusive. Help is required from as many members as possible on these dates so make a note of them in your diary.

Observatory Repairs

Sometime in September the transit room and the lift roofs will be repaired. It may be necessary to temporairly close the dome while this work is in progress.

Comet Halley

Comet Halley is now steadily brightening. The comet is now bright enough to be seen with the 10". Unfortunately it is not yet an early evening object. The comet is in the constellation of Orion hence is not visible until the early hours. If any member is interested in being 'one of the first' to glimpse it please contact any section director who will attempt to arrange an early morning observing session.

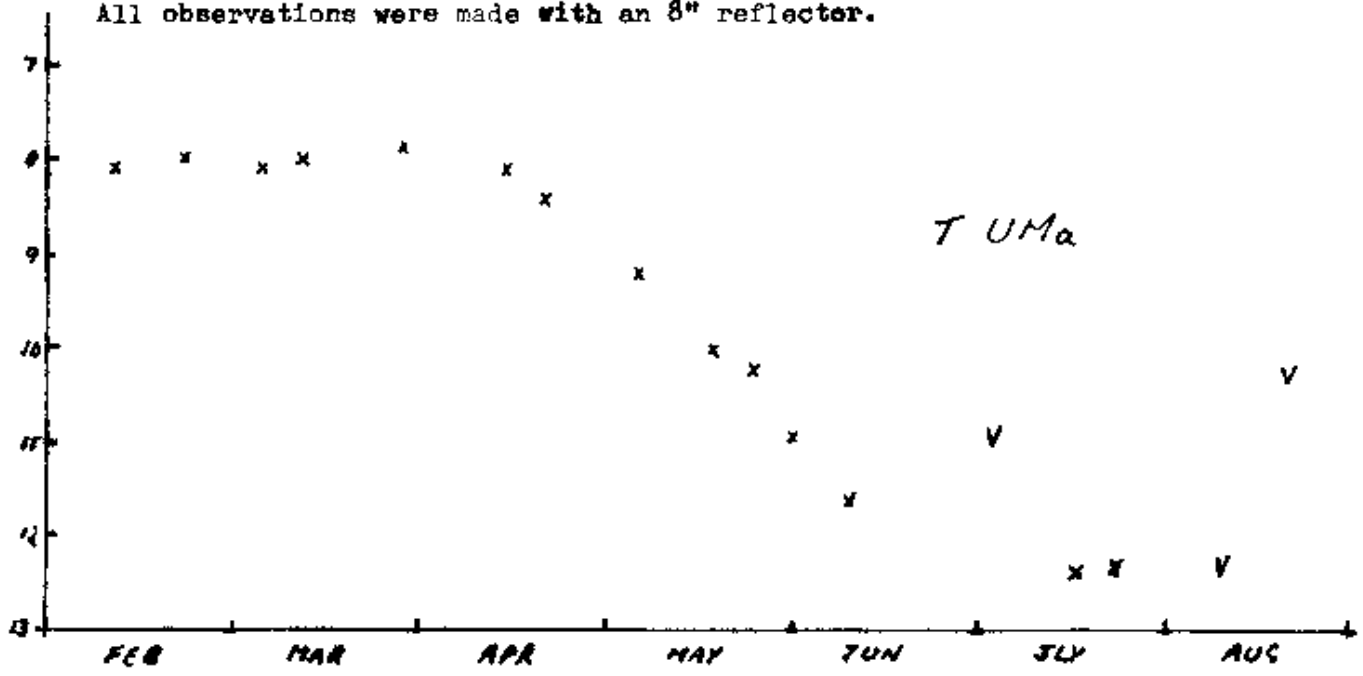
(David Barnard)

VARIABLE STAR OBSERVATIONS

by Mike Nicholls

This light curve shows T Ursae Majoris from February to August this year. This variable belongs to the long period class, and its period is around 257 days. The curve shows a maximum lasting for about two months. Looking at past records it seems quite normal for this star to stay at maximum for this length of time. The star then fades fairly rapidly to a minimum which should be about magnitude 13. The V sign on the curve indicates that the variable is fainter than this value.

All observations were made with an 8" reflector.



PROGRAMME FOR SEPTEMBER

MONDAYS from 8pm	DOUBLE STAR & PLANETS SECTION		
2, 9, 16, 23,	Mr N Taylor	Faralands, Trimley	Tel:Fel.
	Mr T Gillan	Felixstowe	Tel:Fel.
WEDNESDAYS from 8pm	NEBULEA & FAINT OBJECTS SECTION		
4, 11, 18, 25	Mr M Cook,	Ipswich	Tel: Ips.
	Mr D Payne,	Wickham Market.	Tel:W.Mkt
THURSDAYS from 8pm	GENERAL OBSERVATION SECTION		
5, 19	Mr R A Lobbett,	Felixstowe.	Tel:Fel.
	Mr J Hood,	Ipswich.	Tel:Ips.
FRIDAYS from 8pm	VARIABLE STAR SECTION		
By Arrangement	Mr R Gooding,	Ipswich	Tel: Ips.
With Directors	Mr M Nicholls,	Capel St. Mary.	Tel: Ips.

1985 COMMITTEE

CHAIRMAN	D Payne		Work:
		Wickham Market, IP13 0SD	Home:
VICE CHAIRMAN	R Cheesman		Work:
		Corringham, Essex SS17 9BU	Extn
SECRETARY	R Gooding	Ipswich	Work:
		IP1 6AE	Home:
TREASURER	M Nicholls	Capel St. Mary, Ipswich, IP9 2EX	Work:
			Home:
MEMBERSHIP SEC.	D Barnard	Ipswich, IP4 5PP	Work:
			Home:
P.R.O.	D Barnard	Ipswich, IP4 5PP	Work:
			Home:
MAINTENANCE	M Cook	Ipswich, IP4 5QA	Work:
			Home:
FUNCTIONS	E Sims	Ipswich, IP1 4HA	Work:
			Home:
LIBRARIAN	E Sims		