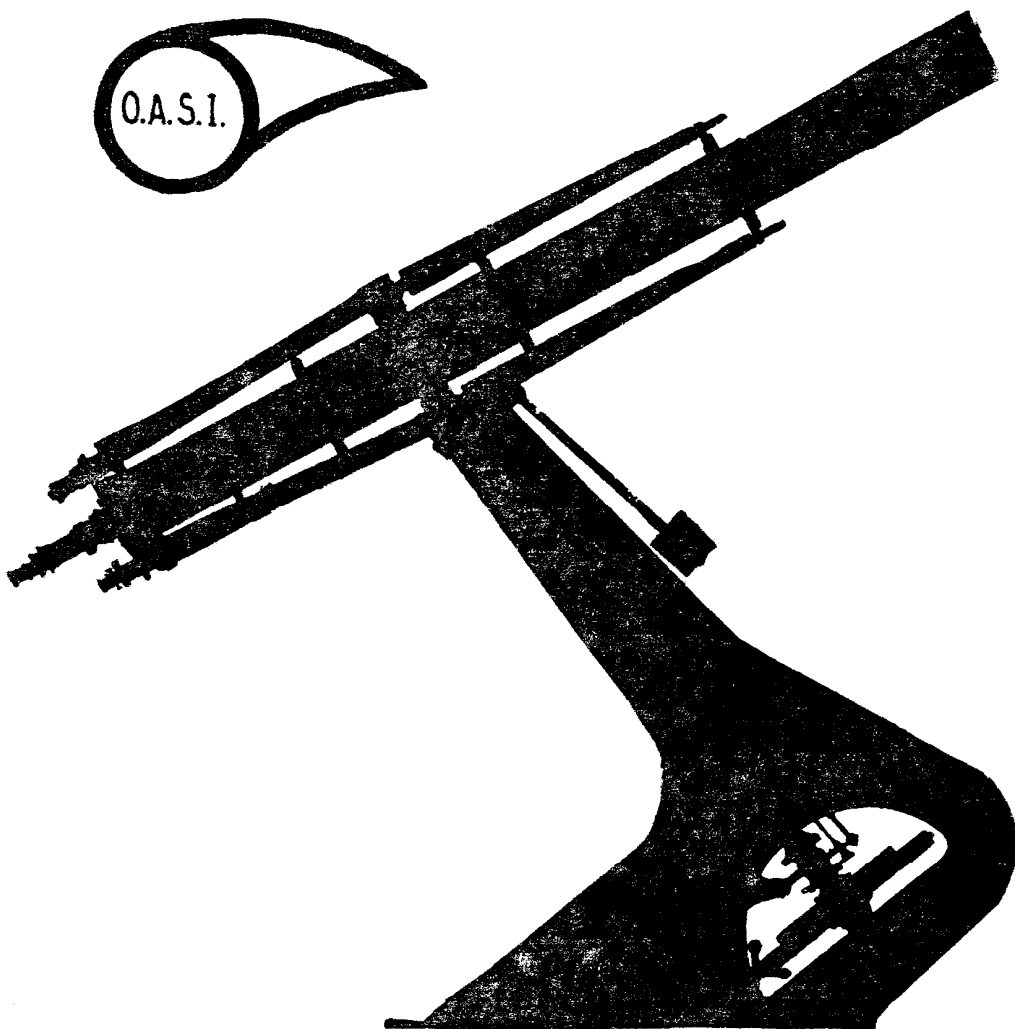


MARCH 1985



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

1. Subscriptions were due on 1st January.

Rates are:- JUNIOR £3.50
ADULT £5.50
FAMILY £6.50

Plus £1.60 for Journal postage if not collected from Observatory.

Renewals should be sent to D.Barnard, address on back cover. This will be the last newsletter you will receive if you have not renewed your 1985 subscription.

2. Next Committee Meeting will be held on 23rd March at 7.30 p.m. All members are invited.

CONSTELLATIONS (all times G.M.T.)

The winter constellations are now being replaced with the constellations of spring.

SUN Rises approx. between 06.50 to 05.50

Sets approx. between 17.30 to 18.30

MOON ○ 7th ● 13th ● 21st ● 29th

Occultations

2nd	ZC 1089	mag. 6.8	D	19hr. 52.4m
9th	1891	" 4.4	R	5hr. 8.3m
12th	2290+	" 2.5	R	5hr. 57.4m
29th	1061	" 6.1	D	24hr. 29.0m
31st	1334	" 7.0	D	25hr. 15.3m

+ Delta Scorpii

Mercury Greatest eastern elongation on 17th (18°)

Sets about 2 hours after the sun.

Venus Elongation from the sun will steadily decrease during the month. Sets at 21.00 in mid month. Mag. -4.1

Mars Sets at about 21.20 in mid month. Mag. 1.6

Jupiter Rises at about 05.00 in mid month. Mag. 1.6

Saturn Rises at about 23.40 in mid month. Mag. 0.6

Uranus Rises at about 01.40 in mid month. Mag. 5.8

Neptune Rises at about 02.00 in mid month. Mag. 7.7

At 2:10am on the morning of Monday 11th February there was a grazing lunar occultation of a 4.60 magnitude star. The track for observation of the graze went about 10 miles north of Ipswich and it was therefore a good opportunity for some 'field' observations.

For this particular graze we planned to have two groups of observers at two different locations along the centre of the predicted track. Alan Smith had written to Herstmonceux for details of the predictions and had then duly plotted them on a local Ordnance Survey map. These predictions showed the track passing about 2km north of my observatory at Wickham Market. With such a close track I was going to form a third observation point using my 10 inch reflector at home. In this particular occultation the star was passing to the south of the moon and as my observatory was just south of the track I was expecting to observe a 'near miss', I will come back to this point later!

On Friday 8th February it began to snow. On Saturday it continued to snow and then froze. Things were beginning to look grim for observations of this graze. However on Saturday night we held a committee meeting at the Orwell Park Observatory, most committee members managed to attend and the roads didn't seem too bad. It looked as if the observations could be on, as long as we got clear skies during the early hours of Monday morning. We parted from the committee meeting planning to go ahead with the observations. Martin Cook and Alan Smith would be one travelling team and Roy Gooding with Eric Sims would be the other.

Unfortunately although no more snow fell during Sunday, the winds increased and all the snow evenly deposited over the fields ended up in heaps on Suffolk roads with the result that the county ground to a halt. This meant that the 'field' observations would have to be abandoned. However as I didn't have to travel I decided to persevere with my own observations if the the skies cleared.

Having decided to get some sleep before the event I went to bed having set the alarm for 1:30 am. Events then proceeded as follows:

1:30 am - The alarm goes off! I switch it off as quickly as possible not wishing to wake the whole family.

First thoughts are now something like this: "Oh god I've got to get up, I hope its cloudy!" After a few moments however enthusiasm begins to return and peering through the window I can see a few stars through gaps in patchy cloud. "Is it clear enough to be worth getting up? Where's the moon?"

I can't see the moon from the window because of it's position in the south east but I can make out a faint glow on the walls of the observatory and I decided to get dressed and go and look.

1:45 am - Outside in sub zero temperatures and not far off a gale blowing. The moon's clear! I collect a couple of eyepieces and open up the observatory.

1:50 am - I Have found the star shining clearly south west of the terminator. At this point I realise that I have not got any means of timing and recording the observations and beat a hasty retreat back indoors to collect a portable tape recorder. I then dialed the speaking clock, got a recording of it on to the tape which I leave running through out the event. This serves as a time reference (02:01:20) for the following observations.

The following times are now taken from the tape recorder using the reference time:

2:06 am - Back at the telescope. The star is now just about at the terminator. I cannot make out the dark side limb and find it difficult to estimate the distance of the star from the dark limb.

2:09 At this stage I was convinced that closest approach had occurred a couple of minutes ago and started to use the crater Clavius to estimate the position of the star.

02:09:57 The star Disappeared!

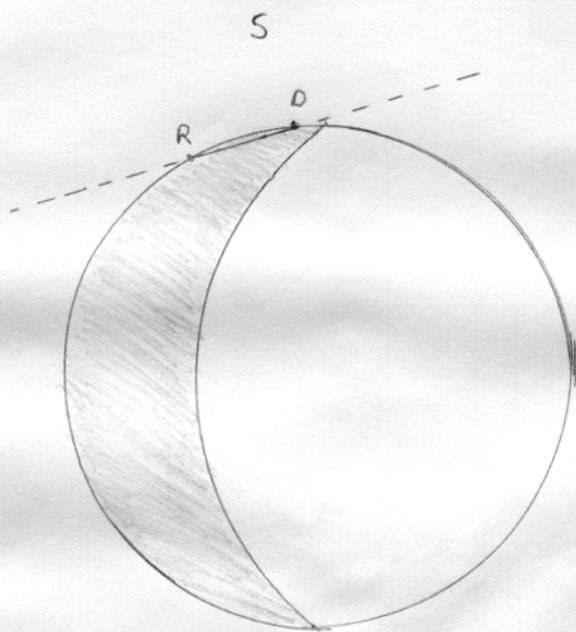
02:10:14 Recorded my estimate of the time of disappearance, using my watch, as 2:10:00 (the 09:57 estimate is measured off the tape recorder).

02:11:05 The star reappeared.

I continued to observe the star for several minutes and then decided to close up for the night.

The first important point about this observation, is that it shouldn't have occurred if the predicted track was correct. From the position of my observatory relative to the track I should have got a near miss. The first assumption was that Alan must have made a mistake plotting the track (sorry Alan but Japanese computers and Herstmonceux can't be wrong!! Can they??). On the following Wednesday evening Alan turned up at the Orwell Park Observatory with the predictions. These I took home and independently plotted them on an Ordnance Survey map. The results agreed precisely with Alan's plot. The track predictions were in error after all and by at least three kilometres! The results of these observations will be sent to Herstmonceux for information and, I hope, comment.

The results of the observation are summarised in the diagram below.



Observatory position:

Longitude - 1 21' 41.5" E

Latitude - 52 08' 57.7"

Star ZC 2053 Virginis

Time of disappearance (D) 02:09:57 UT

Time of reappearance (R) 02:11:05

Visits this month

Saturday, March 16th
Rayleigh Astronomical Society 7 p.m.

Wednesday, March 20th
Gipping Valley Venture Scouts 8 p.m.

Monday, March 25th
Felixstowe Probus 84 (Time to be arranged)

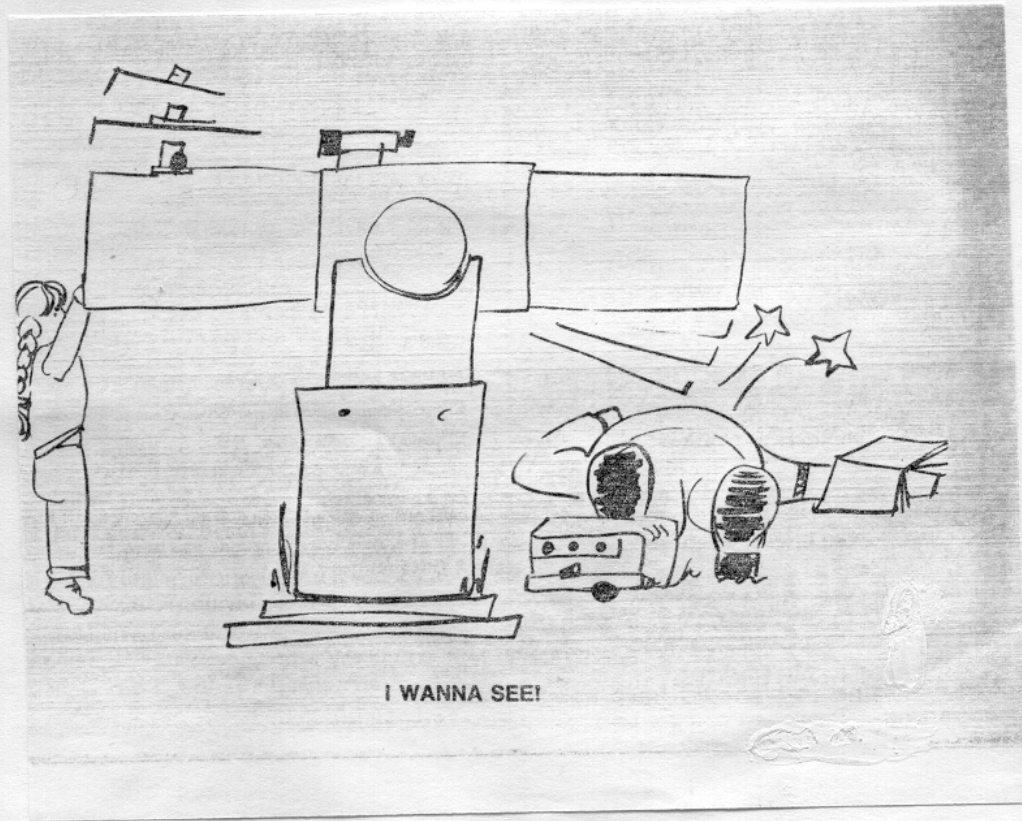
Open Committee Meeting

All members are welcome to attend the above meeting at the observatory on Saturday, March 23rd, 8 p.m.

Subscriptions

If a cross appears on the front of your journal it means your 1985 subscription is still outstanding.

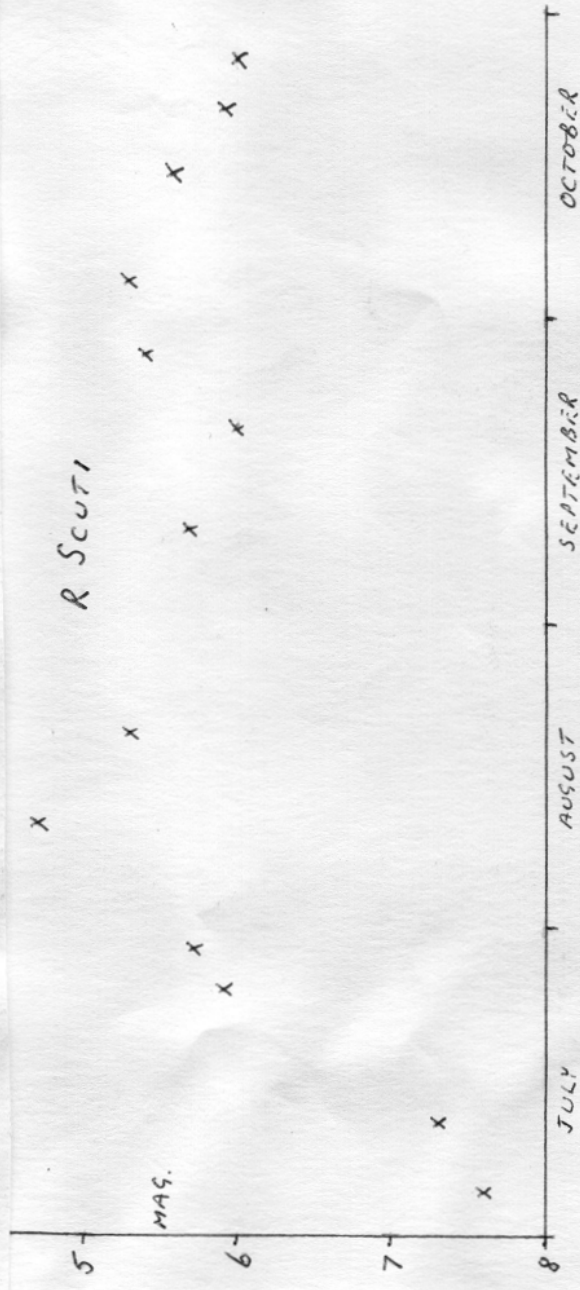
If you wish to continue receiving the monthly journal please send your remittance to Mr. D. Barnard, [REDACTED], Ipswich, IP4 5PP.



VARIABLE STAR OBSERVATIONS

by Mike Nicholls

The light curve this month shows R Scuti from July to October this year. This star is a member of the RV Tauri type of variables. They are basically semi-regular but are characterised by having alternate deep and shallow minima. The light curve shows a rise from a deep minimum, followed by a shallow one in September. It is difficult to see what type of minimum the one at the end of October is going to be. It is quite common for R Scuti to have two or more shallow minima together. This type of star is thought to be oscillating in at least two different modes, which accounts for the two different types of minima. They are amongst the most massive variables known. Observations were made using 10x50 binoculars.



PROGRAMME FOR MARCH

MONDAYS from 8pm By Arrangement Until April	DOUBLE STAR & PLANETS SECTION Mr N Taylor [redacted] Farmlands Trimley Mr T Gillan [redacted] Felixstowe	Tel: Fel. [redacted] Tel: Fel. [redacted]
TUESDAYS from 7pm By Arrangement With Directors	GENERAL OBSERVATION SECTION Mr N Gage, [redacted], Trimley Mr R Newman [redacted], Felixstowe	Tel. Fel. [redacted] Tel: Fel [redacted]
WEDNESDAYS from 8pm 6, 13, 20, 27	NEBULEA & FAINT OBJECTS SECTION Mr M Cook, [redacted], Ipswich Mr D Payne, [redacted] Wickham Market.	Tel: Ips. [redacted] Tel: W.Mkt [redacted]
FRIDAYS from 8pm By Arrangement With Directors	VARIABLE STAR SECTION Mr R Gooding, [redacted], Ipswich Mr M Nicholls, [redacted], Capel St. Mary.	Tel: Ips. [redacted] Tel: Ips. [redacted]

1985 COMMITTEE

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