
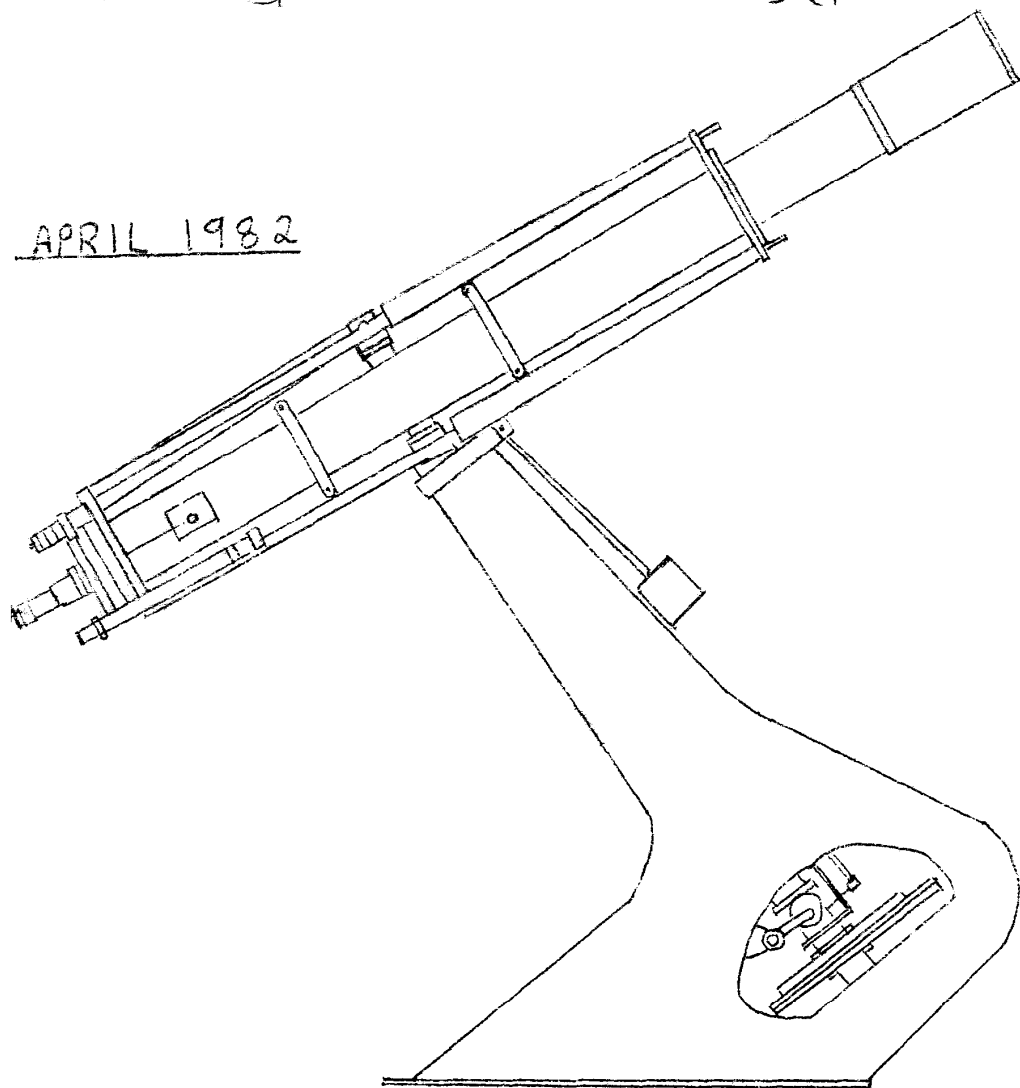



Journal  Orwell Astronomical Society (Ipswich)

APRIL 1982



This month  are trying a new way of producing the monthly Journal. We are using an off-set litho printing machine kindly loaned to us by Mr. I. Angus of Orwell Park School. We hope that the production of the Journal will be of better quality than that which we have had with the old ink duplicating machine which the Society owns. With this new system we might be able to print pictures in future editions. So keeping our fingers crossed here we go:

THE NIGHT SKY AS SEEN FROM ORWELL PARK DURING
APRIL. by Paul Burt.

The Plough is directly overhead this month, it's handle pointing away eastwards from the zenith towards Böotes and Corona Borealis. To the east of these constellations lies Hercules, well up in the sky by the end of the month. To the south, Coma Berenices can be found crossing the meridian around mid-night. Still further south below Virgo and Leo, lies the quadrilateral shape of Corvus, next to Crater. Below these two and just above the wouthern horizon, the entire length of Hydra can be seen snaking it's way westwards up to Cancer. Also in the western sky lie Canis Minor, Gemini and Auriga, with Orion and Taurus now slipping below the western horizon during late evening.

THE SUN.

Sunrise is at 05h 40m at the beginning of the month, changing to 04h 50m at month-end. Sunset changes from 18h 30m to 19h 30m. The Sun moves from Pisces to Aries during the month.

THE MOON - Phases:

First Quarter	1d 05h 08m	Last Quarter	16d 12h 42m
Full Moon	8d 10h 18m	New Moon	23d 20h 29m
		First Quarter	30d 12h 07m

Occultations:

<u>Star</u>	<u>Phase</u>	<u>Mag.</u>	<u>Time</u>		
			<u>d.</u>	<u>h.</u>	<u>m.</u>
1125	D	6.4	1	19	56.8
1129*	D	5.3	1	20	19.4
1143	D	6.8	1	22	42.6

Star	Phase	Mag.	Time		
			d.	h.	m.
1282	D	6.5	3	00	14.8
1287	D	6.7	3	01	20.4
2136	R	6.4	12	02	40.4
760*	D	6.5	26	19	56.4
769	D	6.6	26	21	13.6
1102	D	7.4	28	22	07.5
1242	D	6.8	29	20	56.6
1370	D	6.8	30	20	24.9
1383	D	6.6	30	23	57.3

D = Disappearance R = Reappearance
 Stars listed according to Zodiacal Catalog (7C)
 numbers. * Denotes double star.

THE PLANETS:

Mercury is in superior conjunction on the 11th, but will be setting two hours after the Sun by month-end, at mag. -0.3 (decreasing). Late April and early May provides the best evening apparition of Mercury this year.

Venus reaches greatest elongation west of 46° on April 1st at mag. -4.0 but will be rising only 1 hour 20 mins before the Sun.

Mars is visible all night, in Virgo, at mag. -1.1

Jupiter reaches opposition on the 26th, at mag. -2.0, also in Virgo.

Saturn also reaches opposition this month in Virgo, on the 9th at mag. +0.5

Source: B.A.A. Handbook 1982, All times are U.T.
 (=B.S.T. minus 1 hour)

FROM OTHER JOURNALS: by Paul Burt

VENUS MISSION SUCCESS:

Both the Russian probes, Venus 13 and Venus 14, have successfully landed their descent modules on the planet's surface, and relayed colour photographs and chemical analyses of the surface rocks. Though the two probes landed within 1000km of each other, they were in very different geological regions, thanks to information provided by America from the Pioneer Venus Orbiter, which has mapped the planet's topography by radar.

As the Russian probes descended through the atmosphere

(over a period of 1 hour), they measured the composition and also the intensity of lightning strokes, as well as the brightness of diffused sunlight. After touchdown the probes were intended to relay photographs and rock analyses for half an hour before succumbing to the intense heat and pressure (460° and 90 atmospheres approx), but Venus 13 actually survived for over two hours. The pictures reveal that the rocks are brownish in colour, forming large flat areas of bedrock, littered with smaller jagged rocks in the Venus 13 area, and covered with light brown sandstone in the Venus 14 area. The latter probe also registered the sky colour as bright orange. Both probes also tested the electrical conductivity and 'physico-mechanical' properties of the ground, and carried seismometers.

The analysis of data from the various tests will take some weeks, but initial results have shown the rocks are predominantly high alkaline potassium basalts, which occur on the surface of the Moon, but only in deep oceanic trenches on Earth.

'New Scientist' March 11th 1982.

METEOR NOTES by David Barnard.

Most people are now aware of the amazing number of fireballs seen in East Anglia during February and March.

I myself saw the fireball on March 12th at 19h 31m and 50secs, moving east to west. Although the magnitude was around -4 or so, the duration was an incredible 9 seconds, the slowest moving fireball I have ever seen. The fireball camera picked this up and another at 1845 hours - two in the same frame! So far the fireball has two other visual sightings but so far no other sightings of the earlier fireball.

METEOR SHOWERS

This month there are two major meteor showers active from this latitude:-

1. The April Lyrids

Maximum on April 22.3, normal limits April 19-25, ZHR = 12 Radiant 18h 08m, Dec. +32°. This shower is very favourable this year, and the shower producers fairly bright meteors. There will possibly be a group meteor count on Saturday April 24th after the open Committee Meeting at the Observatory.

4.

2. The eta Aquarids

This shower is active during the last week of April, Maximum is on May 5th with a ZHR of about 55. The radiant is 22hrs 20m and Declination -01° .

SCOTLAND TRIP.

It now seems likely that we will leave Ipswich a week earlier than originally planned so that we can observe the partial eclipse of the Sun on July 20th, which is best seen in the north-west of Scotland before sun-set.

Tentative date for departure is July 16th. This date would also enable us to observe the Capricornids and the delta- Aquarid meteor showers. More information next month.

VARIABLE STARS by Mike Nicholls.

The light curve this month on page 5 shows SS Cygni from October 1981. It is a continuation of the light curve shown in the December 1981 Journal.

The average period between maxima is about 51 days, however there seems to be a gap of about three months between the two maxima shown. This assumes, of course, that there is not a maximum in late December where there is a gap in the observations due to the bad weather.

Cygnus has now sunk low in the north-west at dusk, and so observations will cease for a while. Observations were made using an 8" reflector.

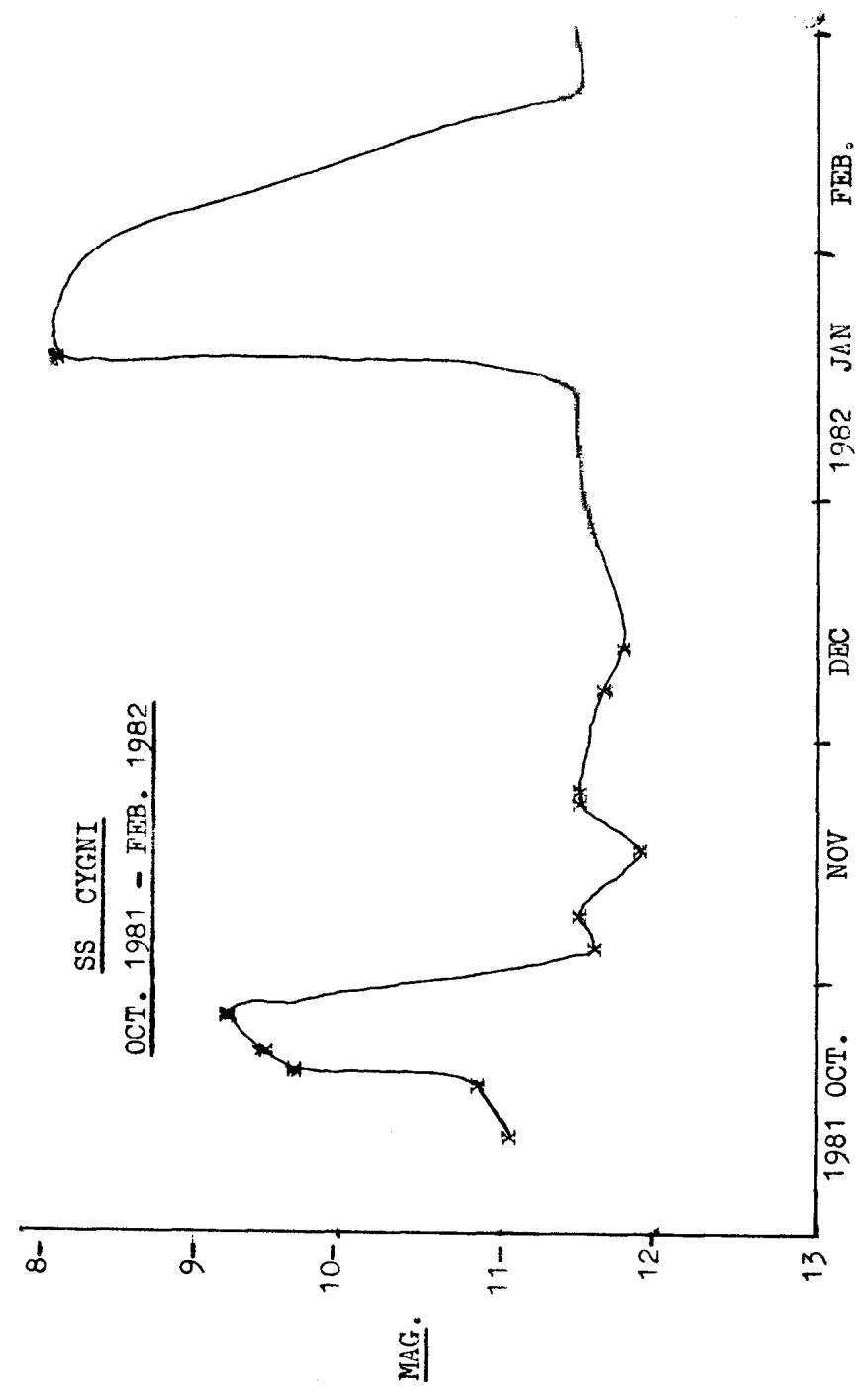
SOCIETY NEWS:

MAINTENANCE OF OBSERVATORY

With the lighter evenings now with us, this should enable us to concentrate on some repairs to the Observatory. There were several jobs that were not done during last year's session, e.g. replacement of window frames on the stairs and in the club-room. Help will be needed soon and a work schedule will soon be pinned up in the club-room.

As much help from members as possible is required so that we can get the Observatory and club-room as we would want it to be.

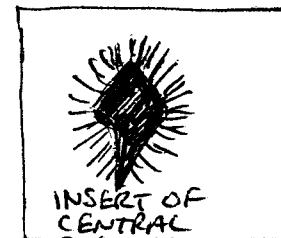
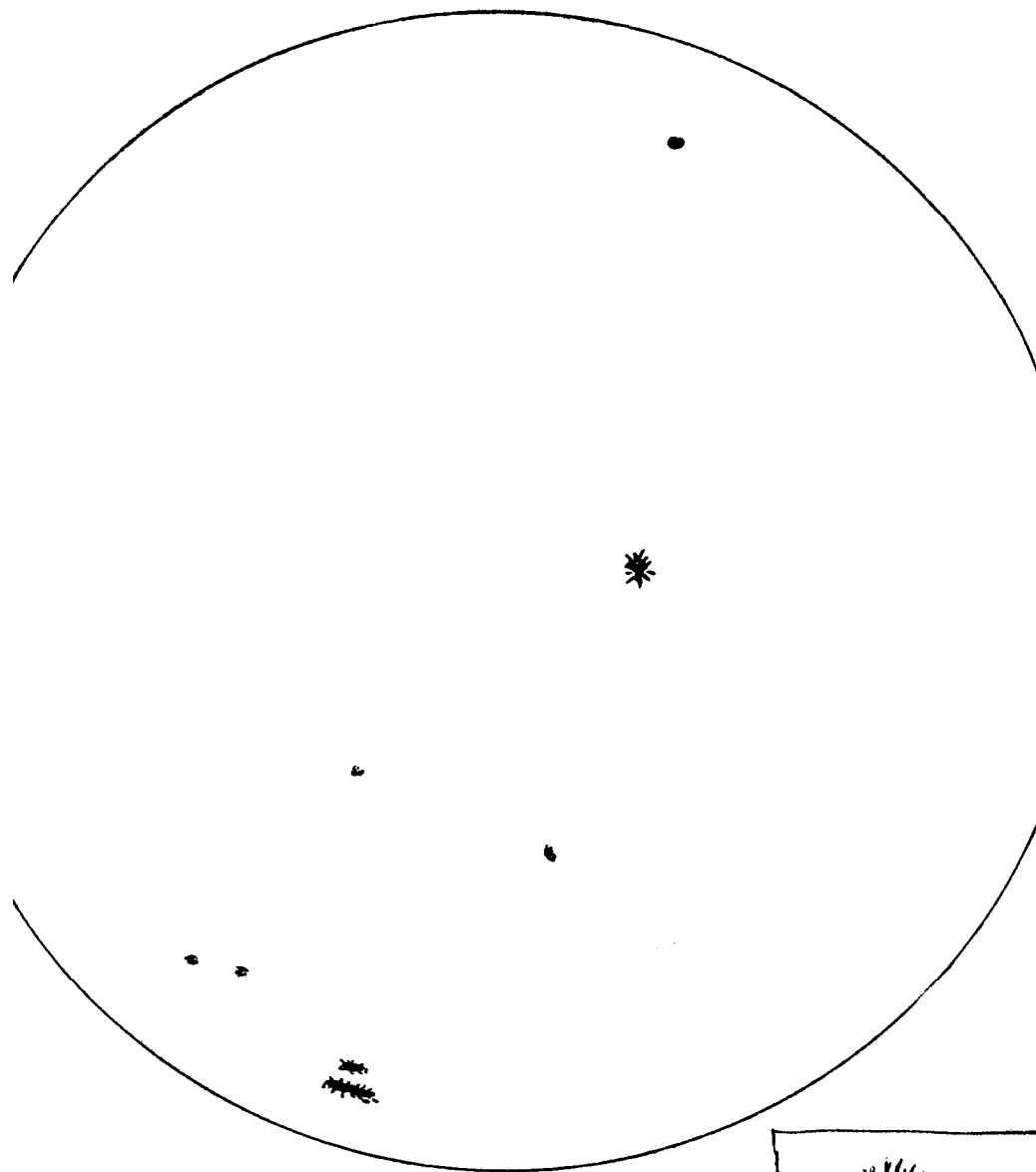
5.



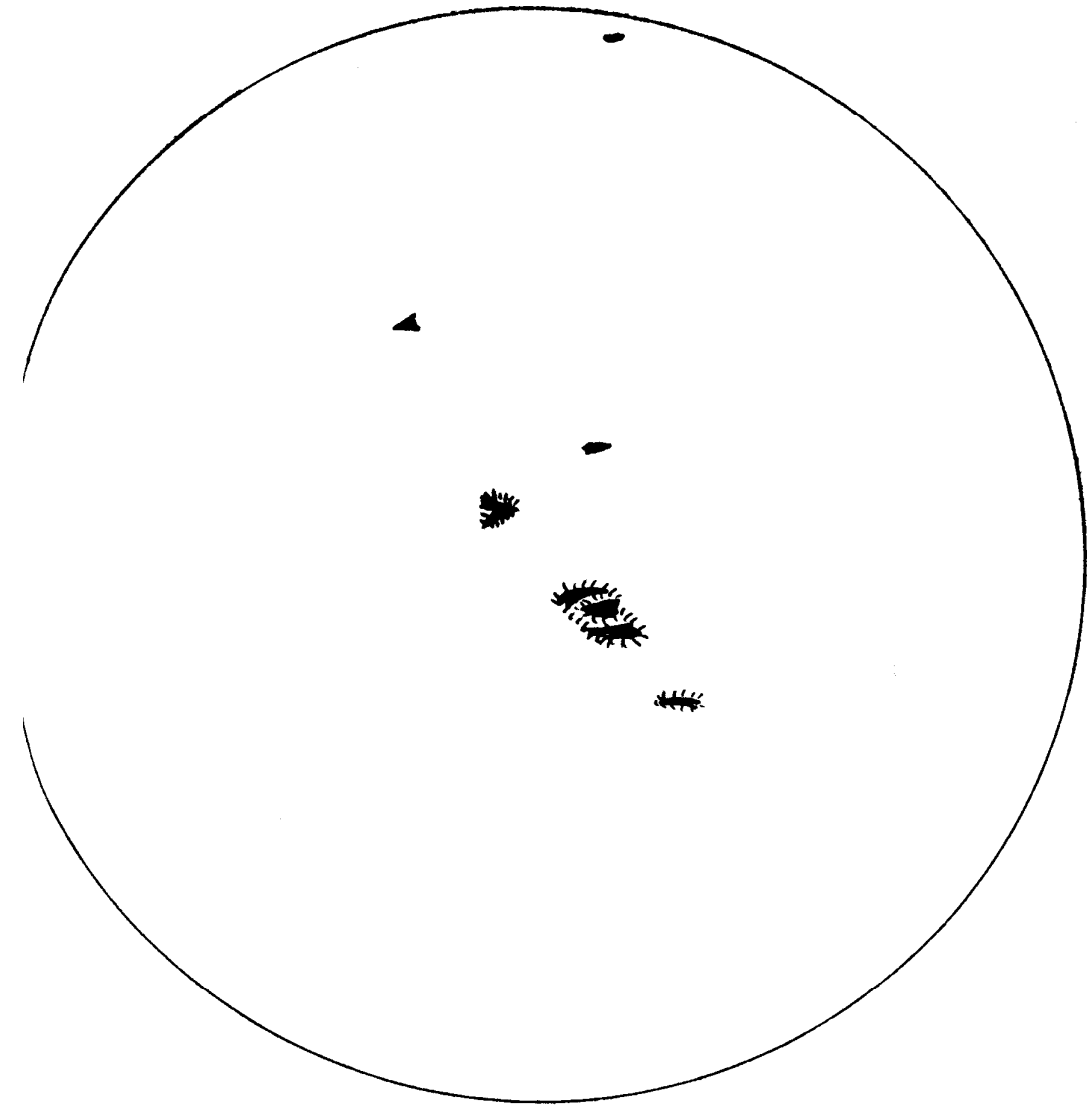
23/3/82

On 10th February this year a very large naked-eye sun spot group was seen by myself and other members. This stimulated interest in solar observations, and accompanying this article are three diagrams that were plotted from projections of the sun. I hope to improve the quality and accuracy of future observations and will be trying to keep as comprehensive a record of the sun throughout the summer as the weather will permit.

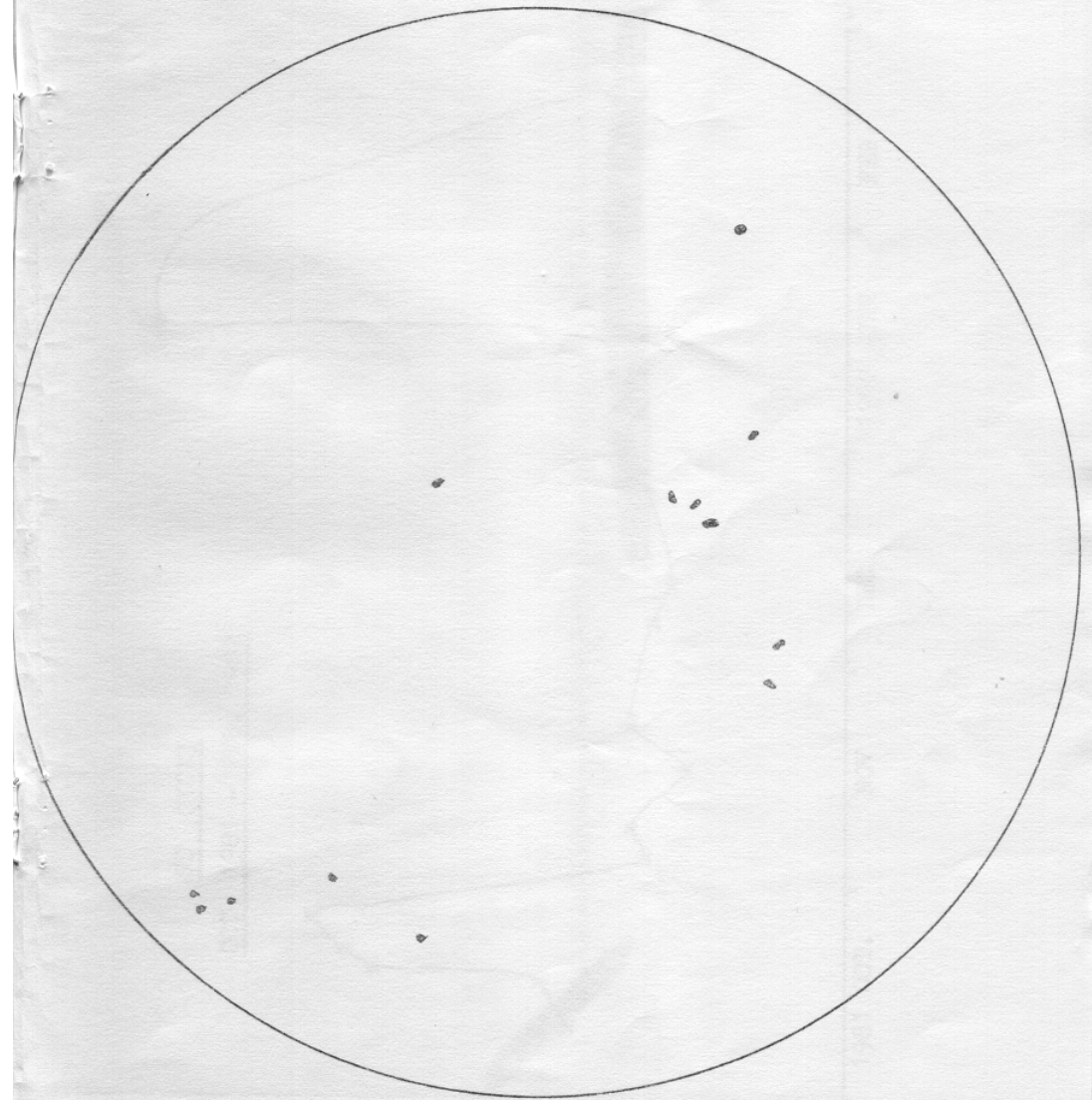
The sun seems to be very active at present and so regular observations could prove worthwhile, with the possibility of more naked-eye sun spots. I must add at this point that the sun can only be looked at during sun-set in very hazy conditions, and you should never use binoculars or telescopes to look directly at the sun. Remember projection is the best method to look at the sun.



10/2/82



12/3/82



MEMBERSHIP SUBSCRIPTIONS - FINAL REMINDER

All membership subscriptions to our Society became due on 1st January, 1982. If you have not renewed your subscription and would like to do so please send your cheque to:

Mr. M. Barnskill,
(Membership Sec. O.A.S.I.)
[REDACTED],
IPSWICH.

Membership Subscriptions are at the following rates:-

Junior Membership (those under 18 years of age or still in full time education)	£2.00
Full Membership	£3.00
Family Membership	£4.00
.....	

Grazing Occultation - Sunday 29th February, 1982.

The joint meeting with Chelmsford Astr. Soc. to observe this event was (as usual) a wash out!

Astronomy for beginners:

This month's meeting at the Observatory for this section will be held on Friday 16th April starting at 7.30p.m. The subject will continue on from last month's meeting - 'The Solar System'. Members and non-members are welcome to come along to this meeting.

Open Committee Meeting

This month's Committee Meeting will be held on Saturday 24th April in the Observatory starting at 7.30p.m. All members are invited to come along to this meeting as the main topic for discussion will be the Open Nights at the Observatory during early May.

Deadline for May's Journal.

All items for inclusion in the May's Journal should be sent to Mr. E.M. Jackson, [REDACTED], WEST HANTSINGHAM, Chelmsford, Essex, OMS 916, to arrive no later than ~~Wednesday~~ by 14th April.

OPEN NIGHTS AT THE OBSERVATORY.

This year the Committee has decided to hold 'Open Evenings' at the Observatory rather than hold an 'Open Day'. It has been decided to give this a try this year because so much work has to be done and arrangements made to hold an Open Day.

The dates are:

Friday	7th May
Saturday	8th May
Sunday	9th May
Monday	10th May.

On each of these nights the Observatory will be open to the general public (for a small donation to Society Funds) for them to look through the telescope and get information about our Society. The Observatory will be opened at about 8p.m. and we hope to close up around 11p.m.

Most of the planets and the Moon will be visible and we hope that we get one or two of the nights where we will be able to use the telescope.

As many members as possible are required to help out on these nights. If you can help please come along to the Open Committee Meeting on the 24th April or contact any of the Committee Members.

Later in the year, most probably around August Bank Holiday time we will organise a 'Grand Draw' which helps our Society to keep going.

Please, please come along on at least one of these nights, even if it is only for an hour or so.

Address Labels:

If there is any error in the name or address on the new computer labels on your Journal envelope please contact David Barnard, [REDACTED], Ipswich, Tel. No. Ipswich [REDACTED].

ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

PROGRAM FOR APRIL.

At the Observatory, Orwell Park School, Nacton.

TUESDAYS from 7p.m. Solar, Lunar & Planetary Section:
Directors: Mr. J. Hood and Mr. J. Ranson.

6th 13th 20th & 27th

WEDNESDAYS from 8p.m. Nebulae & Faint Objects Section
Directors: Mr. D. Payne & Mr. M Cook

7th 14th 21st & 28th

FRIDAYS from 8p.m. Variable Stars Section.
Directors: Mr. M. Nicholls and Mr. R. Hodgkiss

2nd 9th 23rd & 30th

FRIDAYS from 7.30p.m. Astronomy for Beginners

April 16th

SATURDAY 24th April at 7.30p.m.
OPEN COMMITTEE MEETING to which all
members are invited.

FORTHCOMING ATTRACTIONS:

Observatory Open Nights to the General Public

on Friday 7th May, Saturday 8th May, Sunday 9th May
and Monday 10th May.

As much help as possible by members will be
required to run these nights

between 8p.m. and 11p.m.