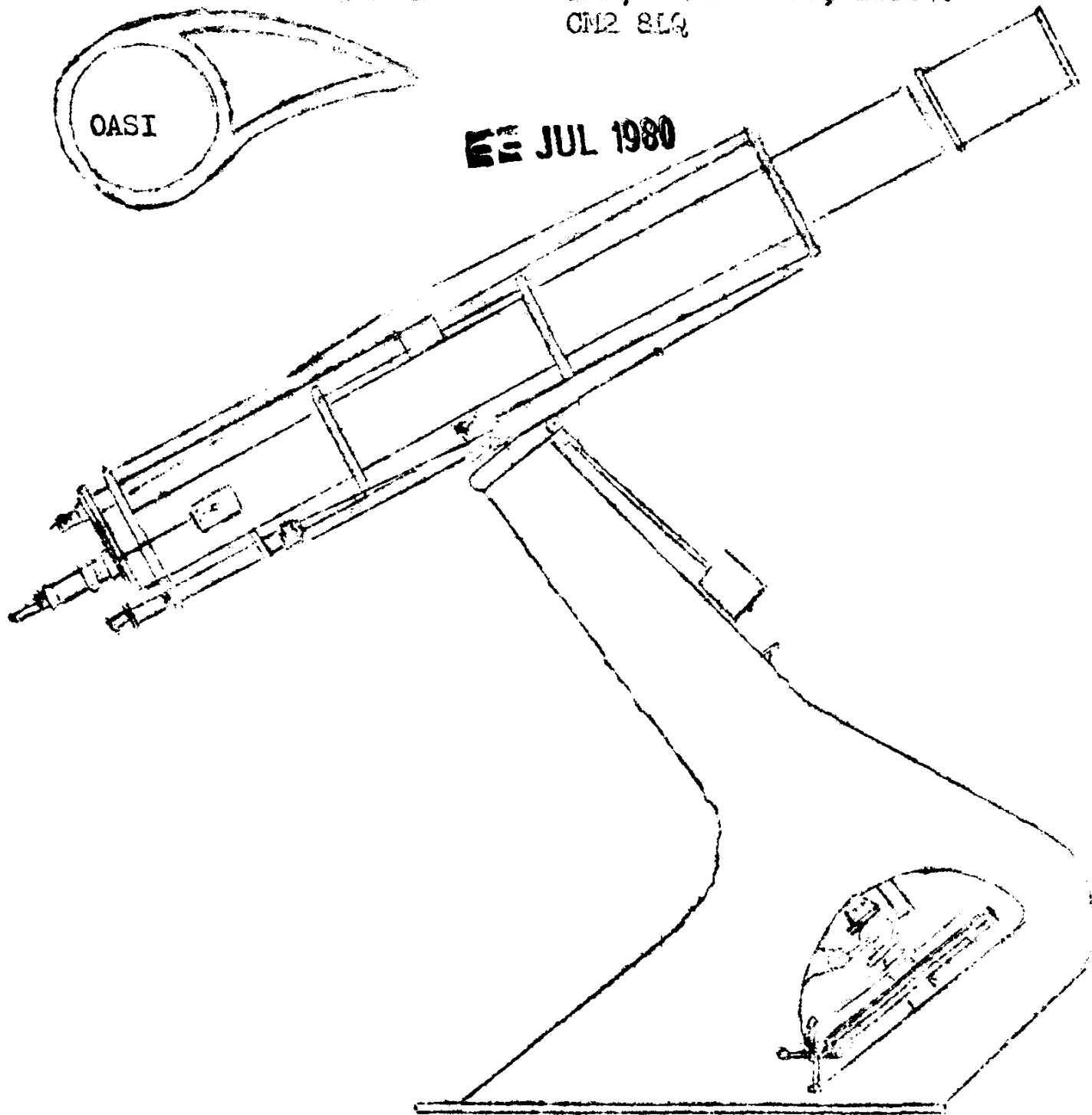


JOURNAL OF THE ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

Editor: Mr. P. Burt, [REDACTED], Ipswich, IP1 6EP  
'phone Ipswich [REDACTED]

Producer: Mr. R.M. Cheesman, [REDACTED],  
WEST HANNINGFIELD, Chelmsford, Essex.  
CM2 8LQ



The Orwell Park 16 inch Astronomical Telescope  
at Nacton near Ipswich.

SECURITY AT THE OBSERVATORY

At a special Committee Meeting called on Saturday 7th June to discuss security at the Observatory and within the Orwell Park School and grounds it was decided that we should emphasis the 'Rules of the Society' dealing with Security. The 'Rules of the Society' were included in the Society's Journal a few months ago and any member wishing to have another copy should apply to Mr. M. Barriskill, our Secretary.

Members are reminded that they must keep to the Observatory and the stairs leading to the Observatory. On no account must any member, or their guests, wander into the School or School grounds, unless permission is given to them by Mr. Angus the School's Headmaster. The only members of our Society who have permission to go into the School grounds are Mr. David Burnard and Mr. M. Cook and then only so that they can work on the School clock

At the observing nights held at the Observatory it is the responsibility of the evening's Director to ensure that the observatory is made secure after the evening's activities and that all members, and their guests, are safely off the School grounds.

If any member sees anybody in the school who they do not recognise they should ask them who they are and what they are doing there. If you are not satisfied with their answer the matter should be reported at once to the evening's Director who will investigate and, if necessary, advise the Headmaster of the School.

WITH IMMEDIATE EFFECT ALL MEMBERS MUST CARRY THEIR MEMBERSHIP CARDS when attending the Observatory and should show them to the evening's Director or to any of the School's staff who might question your identification.

Please remember that there are about 180 boys, plus staff, living at Orwell Park and that because of Fire Regulations all the doors of the school have to be left unlocked so please become 'security minded' and everyone will sleep more soundly.

R.M. CHEESMAN.

## THE NIGHT SKY AS SEEN FROM ORWELL BIRD IN JULY:

The quadrilateral shape which forms the head of Draco holds the zenith position around mid-night this month, although greatly overshadowed by nearby Vega, and the glorious Cygnus constellation of Draco which is in fact surrounded by a ring of prominent groups of stars forming a circle around the zenith; Hercules, Corona, Bootes, Ursa Major, Ursa Minor and Cepheus completing the chain. Andromeda and Hercules are stretched horizontally along the eastern horizon. Aquila is in the south-east, and Ophiuchus is just west of the meridian. Libra and Vergo are low on the south-western horizon. This month is our once-yearly chance to take a look at the star clouds in Sagittarius (on the southern horizon), which point the way to the centre of our galaxy,

### THE SUN:

Sunrise is at 03h 40m at the beginning of the month, changing to 04h 20m at month-end. Sunset changes from 20h<sup>3</sup>m to 20h00m during the month. The sun moves from Gemini to Cancer during the course of the month.

### THE MOON - phases for July

Last Quarter	5d 07h 27m	First quarter	20d 05h 5 <sup>1</sup> m
New Moon	12d 06h 46m	Full Moon	27d 18h 5 <sup>1</sup> m

### OCCULTATIONS

<u>Star</u>	<u>Phase</u>	<u>Mag.</u>	<u>Time</u>		
			<u>d.</u>	<u>h.</u>	<u>mins.</u>
508	R	4.3	8	2	49.7
*692	D	1.1	9	5	54.0
*692	R	1.1	9	6	54.0
1487	R	4.3	15	3	11.0
2158	D	7.3	21	21	08.6
*2230	D	6.8	22	21	52.5

D = Disappearance      R = Reappearance

\* denotes double stars

Stars listed according to Zodiacal Catalog (ZC) numbers.

THE PLANETS:

- Mercury reaches inferior conjunction on the 11th, and is not visible this month.
- Venus is a morning star this month, rising three hours before the Sun by the end of the month. Greatest brilliancy of  $-4.2$  on the 22nd.
- Mars moves into Virgo this month, setting two hours after the Sun at mag.  $+1.3$
- Jupiter at mag  $-1.3$ , will be setting only an hour after the Sun by the end of the month.
- Saturn is setting two hours after the Sun, at mag.  $+1.4$ .
- Neptune is still favourable, setting at 01h 30m during mid-month, at mag.  $7.7$ . in Ophiuchus. R.A. 17h 19m, Dec.  $-21^{\circ}40'$ .

Source B.A.A. Handbook 1980. All times are U.T.  
(= B.S.T. minus 1 hour)

FROM OTHER JOURNALS:THE SUN - NOT SO TYPICAL?

Observations of 17 sun-like stars by Myron Smith of the University of Texas have shown that all except one rotates faster than the Sun. It has long been known that stars much heavier than the Sun spin more quickly, but it is difficult to measure the rotation of slowly turning stars. The technique involves measuring the width of narrow spectral lines and Smith has applied this method using a high sensitivity detector on the 2.7 metre telescope at the McDonald observatory. He has found that the average rotation time for a G-spectral class stars is 10 days, as opposed to 25 days for the Sun.

In the Solar System, most of the angular momentum of the Sun's rotation is carried by the planets, rather than by the Sun itself, and some astronomers believe that the planets have acquired angular momentum lost from the sun in the early days of the Solar System.

If this is the case, Smith's result indicates that other Sun-like stars may not have planets (or at least Jovian type planets) - depressing news for extra-terrestrialists who think that life on planets of Sun-like stars should be common in the Universe. (New Scientist)

## GENERAL NOTES FOR JULY

by David Barnard.

July is the most active month of the year for meteor showers and we have five major showers visible.

### 1. CAPRICORNIDS:

The maximum falls on July 25th with the normal limits between July 10th and August 15th. The Zenith Hourly Rate is about six and bright meteors should be seen. This year the Moon interferes with the observation of this shower. R.A. = 2100 and Dec. is  $-15^{\circ}$

### 2. DELTA AQUARIDS:

Maximum is on July 27th and the normal limits are between July 15th and August 15th. The ZHR is about 35 and again the Moon interferes with observations. This shower has a double radiant: R.A. 22.36, 22.36 and Dec.  $00^{\circ}$  and  $-17^{\circ}$ .

### 3. ALPHA CAPRICORNIDS:

Max is on 1st August and the normal limits falling between July 15th and August 15th. The meteors from this shower are generally yellow in colour with a ZHR of 8. Also this shower produces yellow fireballs so it is well worth observing. The radiant is R.A. 20hrs36mins and Dec. is  $-10^{\circ}$ .

### 4. IOTA AQUARIDS:

Max. is on 5th August while the normal limits fall between July 15th and August 25th. The Z.H.R. is approx. 6. The Moon does not interfere with observing this shower at maximum. Again this shower has a double radiant: R.A. 22hrs 32m, Dec.  $15^{\circ}$  and R.A. 22hrs 44min Dec.  $-6^{\circ}$ .

### 5. THE PERSEIDS:

This shower is the most observed and certainly very active, with an average of about one meteor a minute. Max is on August 12th and the normal limits July 25th to August 18th. Z.H.R. is 68!! This shower produces many bright flaring meteors with fine trains and also the Moon does not interfere at Maximum. R.A. 21hrs 45min Dec.  $68^{\circ}$

5.

There will be meteor showers this month as I shall be on holiday and perhaps observing from a different latitude but this does not stop you doing your own meteor count and sending me a copy of your report.

David Barnard,

[REDACTED], Ipswich.

p.s. the next meteor count will be on Saturday 9th August.

FIREBALL OF 1980 JUNE 3rd.

by Howard Miles,

Director B.A.A. Meteor Section.

(This article to appear in the B.A.A. Journal shortly)

An interesting fireball was seen in the Essex-Suffolk region of England on 1980 June 3 at 21.57U.T. Only a few observations have been received, all of which were due to the efforts of MR. ALAN SMITH of THE ORWELL ASTRONOMICAL SOCIETY (IPSWICH).

It has not been possible to deduce an accurate track of the object but sufficient evidence was provided to indicate that it travelled on a bearing of roughly  $80^{\circ}$ , crossing the East coast between Felixstowe and Walton on the Naze. The object first became visible some distance west of Colchester as a dull orange-red disc which brightened rapidly to a brilliant red and then it suddenly changed colour to a brilliant green. The object suddenly faded when well out over the North Sea. Observers reported that fragmentation (red sparks) took place from when first seen until it faded. A short tail was recorded but no-one observed a persistent trail after the fireball had passed.

The object, although said to be brighter than full moon, was reported consistently as relatively small, the description suggesting a size of about 5 arcmin. The object travelled across the sky at quite a high speed, its duration being about 3 seconds. No sound effects were reported.

Howard Miles

Our thanks to the B.A.A. for allowing us to print this report before it is circularised in the B.A.A. Journal.

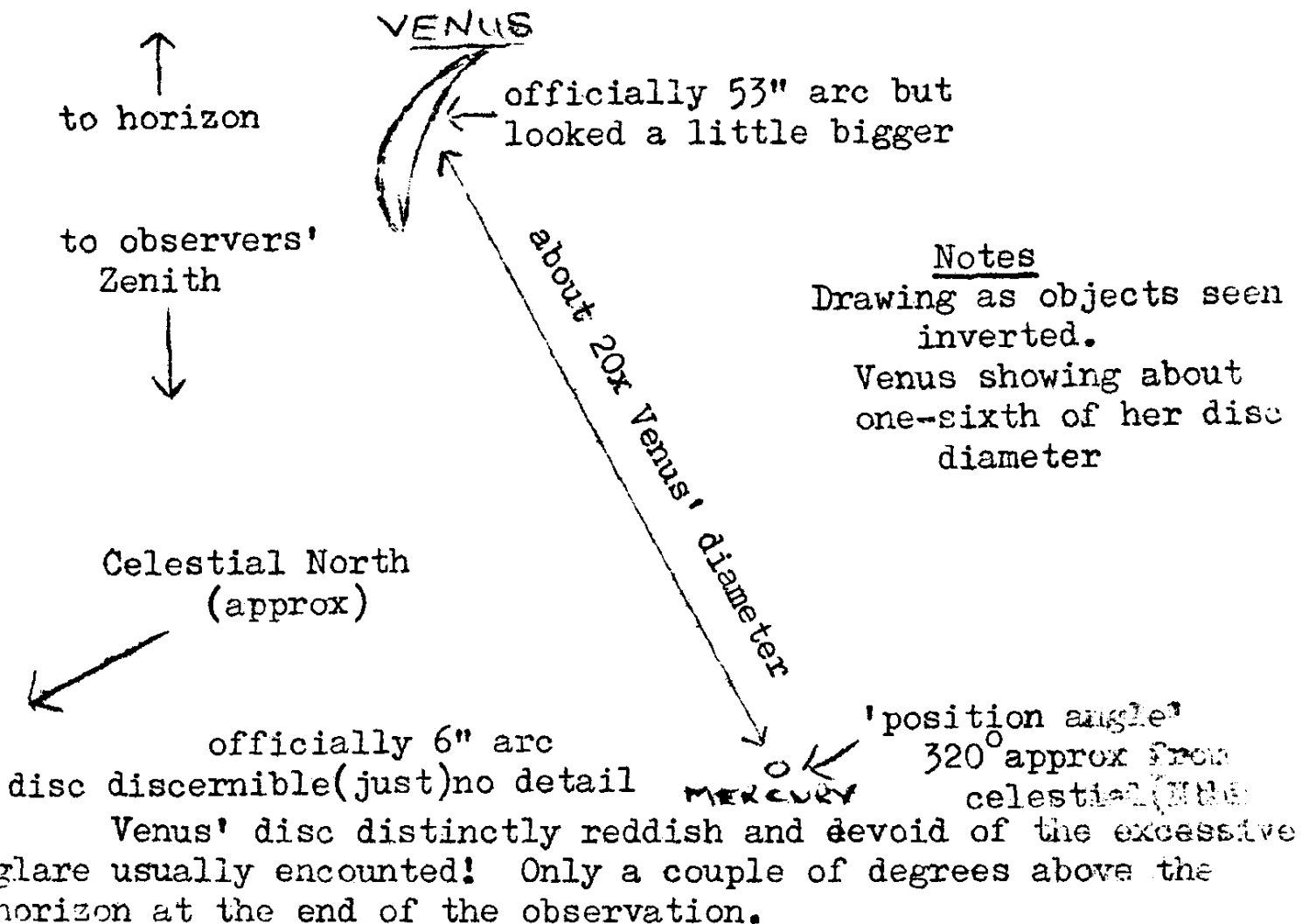
MERCURY & VENUS CONJUNCTION, 1939 JUNE 1

Observers: Roy Adams & Catherine.

With the all-important information in the June C.A.S.I. Journal, that Mercury would be only  $0^{\circ}3'N$  of Venus at 1d19h, we thought we had to try and see it.

A fair (or unfair) amount of cloud persisted earlier in the evening and it did not look as if we had much chance. Then, at just before 10p.m., while watering the garden, we suddenly realized it was clear above, and rushed through to the front of the house to see if the sunset area was clear.

It did not take us long to pick up Venus, and then Catherine actually thought she spotted Mercury - with the naked eye. Quite a feat to be sure, but yes, there it was, on looking through the hand-held 2.2 inch 'ready-for-anything' telescope (40x) We took it in turns to watch for over a quarter of an hour, and made a little drawing of the positions of the two planets



### Your Stars This Month:

Astrologers would have us believe that the position of the sun, moon and planets have an influence on our behaviour. Most astronomers are justifiably sceptical. Psychologists study personality and have devised techniques which attempt to measure personality differences. Some psychologists have applied these techniques to test the validity of the claims of astrologers.

Astrologers say that the position of the sun at birth is an important determinant of subsequent personality. Also, individuals born under compatible zodiacal signs will be more likely to be attracted to each other, and, in the case of opposite sex, pairs marry. Divorce would be less frequent in partners of compatible signs than in those of incompatible signs. Psychological studies have largely failed to elicit evidence to support these claims.

However, M. & F. Gauquelin in France studied - through biographies - famous sportsmen, actors and scientists. They calculated the positions of the planets Mars, Jupiter and Saturn for each individual at the time and place of their birth. They divided the sky into 12 equal sectors and found the sectors immediately following the planets' rise and upper culmination were important. Sportsmen were born more frequently than chance would predict when Mars was in the crucial sectors. Similar results were found for actors and Jupiter; scientists and Saturn.

When the personalities of the three professions were assessed from information contained in the biographies it was found that each group could be considered to have its own personality type which suggested that the personality rather than the profession related to the planetary position.

H. & S. Eysenck have examined the Gauquelin's data and have assessed the personalities of the individual sportsmen, actors and scientists in terms of various personality dimensions, notably introversion and extraversion.

A relationship has been found with planetary positions. Jupiter and Mars were found to be in the crucial rising and culminating sectors more frequently than chance would predict when extraverts were born. A similar relationship was found



between intraverbs and Saturn.

The researchers are cautious and insist on replication of their study before considering erecting theories to explain the results. Never the less, their findings to date are, to say the least, curious.

E.W.R. Young  
Principal Clinical Psychologist  
West Suffolk Hospital.

### GREENWICH TRIP:

The proposed trip to Greenwich which was mentioned in last month's Journal has been changed from Saturday 6th September to SATURDAY OCTOBER 4th. The cost is still unknown and will be published in the Journal A.S.A.P. Meanwhile David Barnard, [REDACTED], Ipswich Tel. Ipswich [REDACTED] is still taking names.

### SECURITY AT THE OBSERVATORY:

Further to the notice on page one of this month's Journal regarding security at the Observatory and at Orwell Park School, at the Committee Meeting held on Saturday 21st June it was proposed that all members leaving their cars in the grounds of Orwell Park School while at the Observatory should DISPLAY A ORWELL ASTRONOMICAL SOCIETY (IPSWICH) DISC. These can be obtained either from the Director of the evening at the Observatory or direct from Mr. M. Barriskill.

### OPEN COMMITTEE MEETING AT THE OBSERVATORY:

There will be an 'Open Committee Meeting' at the Observatory on Saturday 12th July to which all members are invited. The main topic of the meeting will be to make arrangements for the 'Open Day'. Please come along to this meeting and bring with you all your suggestions to make the 'Open Day' a memorable one. This year we hope to use the new Orwell Park School Sports Complex and we will have a lot of room for displays and various activities.

B.P.M.

OPEN DAY DRAW TICKETS:

We have just received the Draw Tickets from the printers and we will be sending all members some in the hope that they will sell them on behalf of the Society.

The 'GRAND DRAW', together with the proceeds from the Open Day provides the Society with nearly half of it's income and without it subscriptions rates would surely have to be increased. So please sell as many of them as you can, the more you sell not only do we get more income but it helps to advertise our Society and the Open Day.

More Draw Tickets can be obtained from Mr. D. Bernard, [redacted], Ipswich, telephone Ipswich [redacted].

THE SALVATION ARMY CONVENTION at Orwell Park.

From Saturday 26th July through to Thursday 31st July The Salvation Army are holding their yearly convention at Orwell Park School. Mr. Angus, the Headmaster of Orwell Park School has asked us if we will be able to open up the Observatory during the evenings of their stay.

As many of our members who normally look after these visits will be on holiday perhaps YOU might be able to help on one, or even two or three, of these nights.

NEWS REVIEW by Simon Harvey

(because of lack of space in this month's Journal

I have had to cut the News Review back a great deal, but hope to pick it up again next month.

For fuller information on these, and other space activities please contact Simon direct- or myself - 3.N. 566000.

MAY 7th- VOYAGERS

Both Voyagers continue on good heading as they cross the gulf between Jupiter and Saturn. Voyager 1 is taking pictures of Saturn, while both spacecraft are sampling the interplanetary medium. Voyager 1 performed a cruise science maneuver on February 20th which was completely successful, however, there were slight differences in the commands issued by JPL to the commands issued by the on-board computer. This is the 4th trouble with command since Voyager 1 Jupiter

encounter, and a team has been set to to diagnose any faults.

An updated 'back up mission load' has been programmed aboard Voyager 2 in case the remaining command receiver gives out. The programme will ~~transmit~~ ~~the~~ ~~abundance~~ of data to earth at Saturn and Uranus, albeit at a slightly reduced level. The spacecraft are both within their power requirements. The Plutonium Biquide power cells (half life 87.9 years) will provide the 99 watts needed for the science instruments at Saturn.

- Jet Propulsion Laboratory.

MAY 29th.

Ford Aerospace & Communications Corporation has been selected by N.A.S.A. to provide systems at Goddard Space Flight Centre for controlling the altitude of the telescope, pointing and monitoring on board systems. The \$9.2 million contract includes the design and engineering of a Project Operations Control Centre to take responsibility for all Space Telescope's affairs.

ARIANE LO<sub>2</sub> FAILS SHORTLY AFTER LAUNCH:

It is painful, but it is true none the less. Ariane launch number 2 failed to achieve orbit after a shut down of one of the first stage engines. It plunged into the Atlantic sometime later. Lost in the launch were two satellites, one of which was the amateur radio satellite 'AMSAT'. The most official that the Kourou Space Centre could say about the cause of the failure at the time, was that it seemed one of the engines went out a minute into the flight, causing the other three to loose pressure forty seconds after that. When this occurred, the range safety officer took the decision to cause the LO<sub>2</sub> to self destruct

- COMSAT/'NEW YORK TIMES.

More News next month - Simon Harvey

DEADLINE FOR AUGUST'S JOURNAL:

As I will be on holiday (yet again!) at the end of July please send all your articles for the August Journal to arrive by Monday 14th July at WESS - HANNOVER

ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

MEETINGS FOR JULY 1980

AT THE OBSERVATORY, ORWELL PARK, EACTON.

TUESDAYS: from 7p.m. Solar, Lunar & Planetary Section.

Directors: Mr. J. Hood, [REDACTED], Ipswich

Mr. J. Ranson, [REDACTED], Ipswich

Tel. Ipswich [REDACTED]

Mr. M. Barritt, [REDACTED], Ipswich.

1st, 8th, 15th, & 22nd

WEDNESDAYS: from 8p.m. Nebulae & Faint Objects Section.

Directors: Mr. D. Payne [REDACTED]

Wickham Market, Tel. Wickham Mkt. [REDACTED]

Mr. M. Cook, [REDACTED], Ipswich

Tel Ipswich [REDACTED]

2nd, 9th, 16th & 23rd.

SATURDAY 12th July from 8p.m.

**OPEN COMMITTEE MEETING** to which all members  
are invited. The main topic of this meeting  
will be to discuss the coming 'Open Day'

**FROM SATURDAY 26th to THURSDAY 31st** visit to Orwell Park  
by the Salvation Army.

We hope to have up the Observatory on each evening of  
their stay at Orwell Park. As many members as  
possible please to help on these nights.

NOTE: This month's programme of activities is smaller  
this month because of Directors of Sections  
being on Holiday.