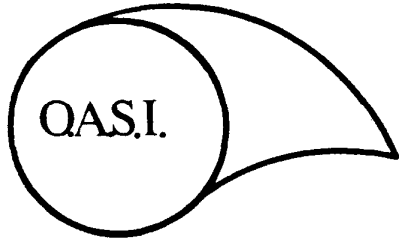


# ORWELL ASTRONOMICAL SOCIETY, IPSWICH.

## SOCIETY NEWS

- 1 Special Committee Meeting Saturday 11th June  
All members are invited to attend this meeting at the observatory. The main item to be discussed will be the Open day. The starting time is 19.30.







**JUNE 1988**



## NIGHT SKY

(all times G.M.T.)

- SUN The sun rises approximately at 03.50  
The sun sets approximately at 20.20
- MOON  7th  14th  22nd  29th
- MERCURY Inferior conjunction occurs on the 13th. Will not be observable this month.
- VENUS Inferior conjunction occurs on the 12th. Will not be observable this month.
- MARS Rises at 01.00 at the begining of the month and at 23.30 at the end. Mag. -0.5
- JUPITER Visible in the early morning sky. Rising between 03.00 and 01.20. Mag. -2.0
- SATURN Opposition on the 20th. Mag. 0.0
- URANUS Rises before sunset in mid month. Mag. 5.9
- NEPTUNE Rises at around sunset in mid month. Mag. 7.7

R. Gooding

## ASTROCAMP Ashdown Forest.

Is anyone thinking of going to the Astrocamp organised by Norman Fisher, for the week 6-14 of August?

If the answer is yes then can you help a keen amater astronomer who has no adiquate transport, namely me .What I need is a lift and a secure place to store my telescope during the day. I would be glad to pay my share of costs.

If you have not booked yet, or are just interested but do not know who to ask then get in touch with me, Gary Marriott, at the observatory on wednesday evenings or phone me on (IPS) [REDACTED] after 6pm.

So lets get going to the "clear and unpolluted skys", of the New Forest. I hope!

Reflections through the Telescope.

by J. Walsh.

Well here I am on what is a very clear night in April, Venus is dominant in the Western Sky. I am looking at her through my telescope. She looks like a tiny crescent moon. I am thinking of all the information we have of our nearest planetary neighbour beyond the Earth Moon system.

Venus at it's closest to us is about 24,000,000 miles away, she is one of the inner or terrestrial planets, second closest planet, after Mercury, from the Sun. It's mean distance being 67,236,000 miles. She also has the distinction of her day (243 Earth days) being longer than her year (225 Earth days). In size she is almost the twin of our own planet Earth, she has an equatorial diameter of 7,543 miles as opposed to our 7,926 miles.

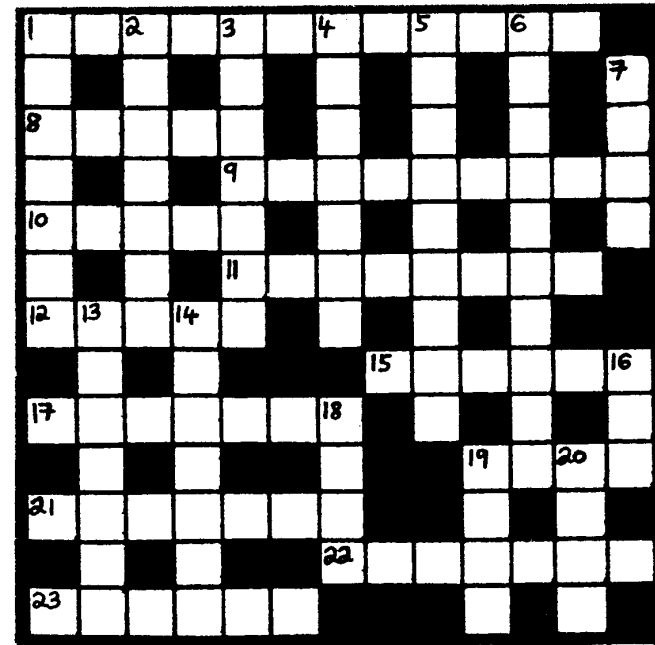
From Earth Venus looks a beautiful sight, with it's White clouds giving her the greatest albedo of any planet in the Solar System. Venus's atmosphere comprises of 96 % Carbon Dioxide with the other 4% being Nitrogen, Oxygen, Argon and a little Water Vapour, the the Atmospheric Pressure being over 90 times as that of Earths. The main cloud layer is made up of Sulphuric Acid droplets and is so thick that only 2 % of incoming light ever reaches the surface. Due to the high Carbon Dioxide content of the atmosphere Venus is a victim of the Greenhouse Effect which allows Infa-Red Radiation to reach the surface of the planet but does not allow it to leave, this brings the surface temperature of the planet up to 750K (about 480C), nearly 500K more than if there was no atmosphere present.

At one time there was probably water on Venus. Many Astronomers believe that due to a change in the Sun it got so hot that the oceans began to evaporate starting the Greenhouse Effect, this in turn created more heat so that any Water Vapour in the atmosphere must have broken down to it's component parts of Hydrogen and Oxygen, the Hydrogen leaked off into space, the Oxygen to combine with surface rocks. This chain reaction went on until any Water in liquid form on the surface had boiled away, until as now there is only a percentage of about 0.005 of Water Vapour in the atmosphere, but even so small a percentage is responsible for 25 % of the Greenhouse Effect. The other 75 % is a combination of Carbon Dioxide Sulphur Dioxide and Hazy Cloud.

There are no seasons on Venus because of the Greenhouse Effect plus the very low Axial Inclination (only 3 Degrees). Venus is as arid at it's poles as it's equator.

The surface of Venus cannot be seen due to the very thick cloud formations surrounding the planet, but Radar mapping has been carried out by various probes. These have shown apart from Plainland and Lowland areas there are two main Land masses or continents. These are named Ishtar Terra in the Northern Hemisphere about the same Size as Australia and Aphrodite Terra in the Southern Hemisphere About the same size as Africa. Also volcano's have been found on the surface of Venus, the largest are two massive shield volcano's Theia Mons and Rhea Mons, these are generally thought to be responsible for recent changes in the Sulphur Dioxide levels in the atmosphere.

# XWORD NO14



**Across**

- 1 NGC 7009 at 3,000 light year within Aquarius (6,6)
- 8 Black holes emit them (1,4)
- 9 Small celestial body moving in an orbit about a planet (9)
- 10 Portion of Saturn's rings visible on each side of the planet (5)
- 11 The synodic month (8)
- 12 Stars can be seen in the daytime when this type of eclipse occurs (5)
- 15 Re-discoverer of an empirical law (1722) for the distances of the planets from the sun ( originally discovered by Wolf in 1741). This law was given a precise mathematical formulation in 1778 by Bode (6)
- 17 Second brightest star in the sky (7)
- 19 The Harp - constellation (4)
- 21 Moon of Uranus discovered by Herschel in 1787 (7)
- 22 A star will do this when viewed through the atmosphere (7)
- 23 Term applied to three astronomical bodies in a straight line (6)

**Down**

- 1 Used primarily in nautical astronomy to measure angular distances of celestial bodies **above** the horizon (7)
- 2 Passage of planets Mercury & Venus across the disc of the sun (7)
- 3 One of the astronomers who originated a graph of spectral type verses brightness (7)
- 4 This planet has an average distance from the sun of 30.058 A.U (7)
- 5 Left shoulder of Orion (9)
- 6 Usually expressed in magnitude (10)
- 7 Satellite of Saturn discovered by Cassini in 1672 (4)
- 13 Lack of transparency (7)
- 14 Angular value used in describing orbital motion (can be true, mean or eccentric) (7)
- 16 Known as Mare on the moon (3)
- 18 Star south of ecliptic within Aquarius (4)
- 19 Faint constellation (named after a cat because you need to be one to see it) **below** Ursa Major (4)
- 20 The constellation Norma (4)

**Solution to crossword number 13**

Across 1 Cosmology, 7 Eros, 8 Mercury, 9 Garnet, 11 Tania,  
12 Ranger, 16 Dog, 18 Albedo, 19 New, 21 Seasons,  
25 Substellar, 28 Dome, 29 Thebe.

Down 1 Comet, 2 Spring, 3 Ocular, 4 Oxygen, 5 Year, 6 Isotope,  
10 Norton, 13 Atlas, 14 Glenn, 15 Adonis, 17 Gas, 20 Wolf,  
22 Easter, 23 Oblate, 24 Scales, 26 UFO, 27 Dew.

The following is a summary of the work done:

1 TRANSIT CHAMBER

- a)The tops of the transit telescope pillars have been recast
- b)The sides of the shutter openings have been rebuilt
- c)The shutters have been repaired and rehunge
- d)The old floor was removed and a new one laid
- e)A new set of stairs have been constructed
- f)The paint on the walls and pillars was striped off
- h)Several areas on the walls have been replastered
- i)Four coats of paint were applied to the walls and ceiling
- j)The telescope mountings have been repaired
- k)The new floor and stairs were stained and varnished

2 EQUATORIAL ROOM

- a)All loose areas of plaster were removed and replace.
- b)The walls were striped of all paint
- c)Two of the wheel boxes were taken out and raised,(the wheels did not touch the dome track)
- d)The sharft of the dome rack and pinion wheel was replaced
- e)The walls were given four coats of paint
- f)Two new stripes of beeding were fixed to the walls
- g)New covers for the wheel box nuts were made
- h)The dome floor has been made safer by additional brick work
- i)All doors have been repainted
- j)The floor has been sanded down,stained and varnished (about 4 times)
- k)The observing chair has been repaired, varnished and recarpeted
- l)Brass name plates have been fixed to the walls
- m)The original clock drive has been repaired

3 STAIR WELL

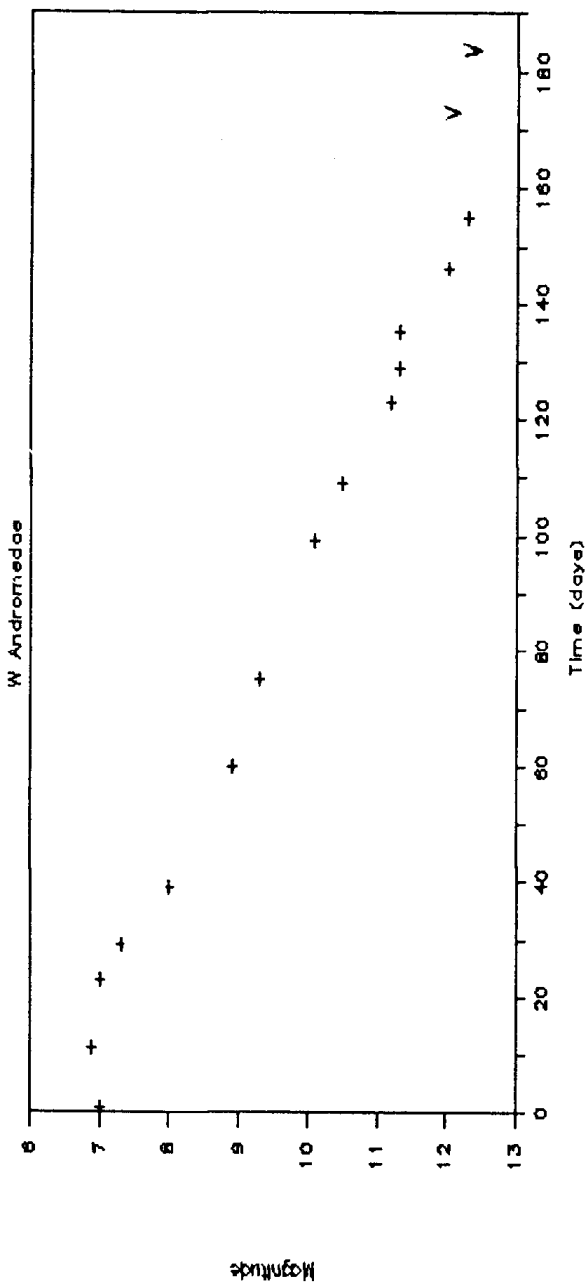
- a)The stair well walls were sandtexed twice
- b)The windows have been painted
- c)The stairs have been painted
- d)A new light has been fixed at the top of the stairs

4 THE CLUB ROOM

- a)Help is still required for this area.

R. Gooding

# Variable Star Observations



The light curve shown above is that of W Andromedae from September 1987 to March 1988. This is a long period variable and the curve shows a fade from maximum.

## PROGRAMME FOR JUNE

Mondays 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] |
|       | Mr N Taylor | [Redacted], Trimley IP10 OXY    | Tel. Fel. [Redacted] |

Tuesdays from 8pm

GENERAL OBSERVATION SECTION

|       |             |                                 |                      |
|-------|-------------|---------------------------------|----------------------|
| 7-14  | Mr R Newman | [Redacted], Felixstowe IP11 9DY | Tel. Fel. [Redacted] |
| 21-28 | Mr J King   | [Redacted], Felixstowe IP11 9LQ | Tel. Fel. [Redacted] |

Wednesdays from 8pm

NEBULA AND FAINT OBJECTS SECTION / CLUB NIGHT

|       |            |                                     |                 |
|-------|------------|-------------------------------------|-----------------|
| 1-8   | Mr M Cook  | [Redacted], Ipswich IP4 5PZ         | Tel. [Redacted] |
| 15-22 | Mr D Payne | [Redacted], Wickham Market IP13 OSD | Tel. [Redacted] |

Fridays from 8pm

GENERAL OBSERVATION SECTION

|       |                 |                                 |                 |
|-------|-----------------|---------------------------------|-----------------|
| 10-24 | Mr P R Richards | [Redacted], Ipswich IP1 2HW     | Tel. [Redacted] |
|       | Mr M Harlow     | [Redacted], Trimley IP10 OXB    | 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]<br>Work: [Redacted] |
| VICE CHAIRMAN    | D Barnard  | [Redacted], Ipswich IP4 5PP                | Home: [Redacted]<br>Work: [Redacted] |
| SECRETARY        | R Gooding  | [Redacted], Ipswich IP1 6AE                | Home: [Redacted]                     |
| TREASURER        | M Nicholls | [Redacted], Capel St Mary, Ipswich IP9 2EX | Home: [Redacted]<br>Work: [Redacted] |
| MAINTENANCE      | M Cook     | ( Address above )                          | Home: [Redacted]<br>Work: [Redacted] |
| JOURNAL          | E Sims     | [Redacted], Ipswich IP1 4HA                | Home: [Redacted]                     |
| CO-ORD LIBRARIAN | P Richards | ( Address above )                          | Home: [Redacted]<br>Work: [Redacted] |
| EQUIPMENT        | R Newman   | ( Address above )                          | Home: [Redacted]<br>Work: [Redacted] |
| CURATOR          |            |  | Home: [Redacted]<br>Work: [Redacted] |
| SPECIAL          | N Taylor   | ( Address above )                          | Home: [Redacted]<br>Work: [Redacted] |
| EVENTS           |            |  | Home: [Redacted]<br>Work: [Redacted] |