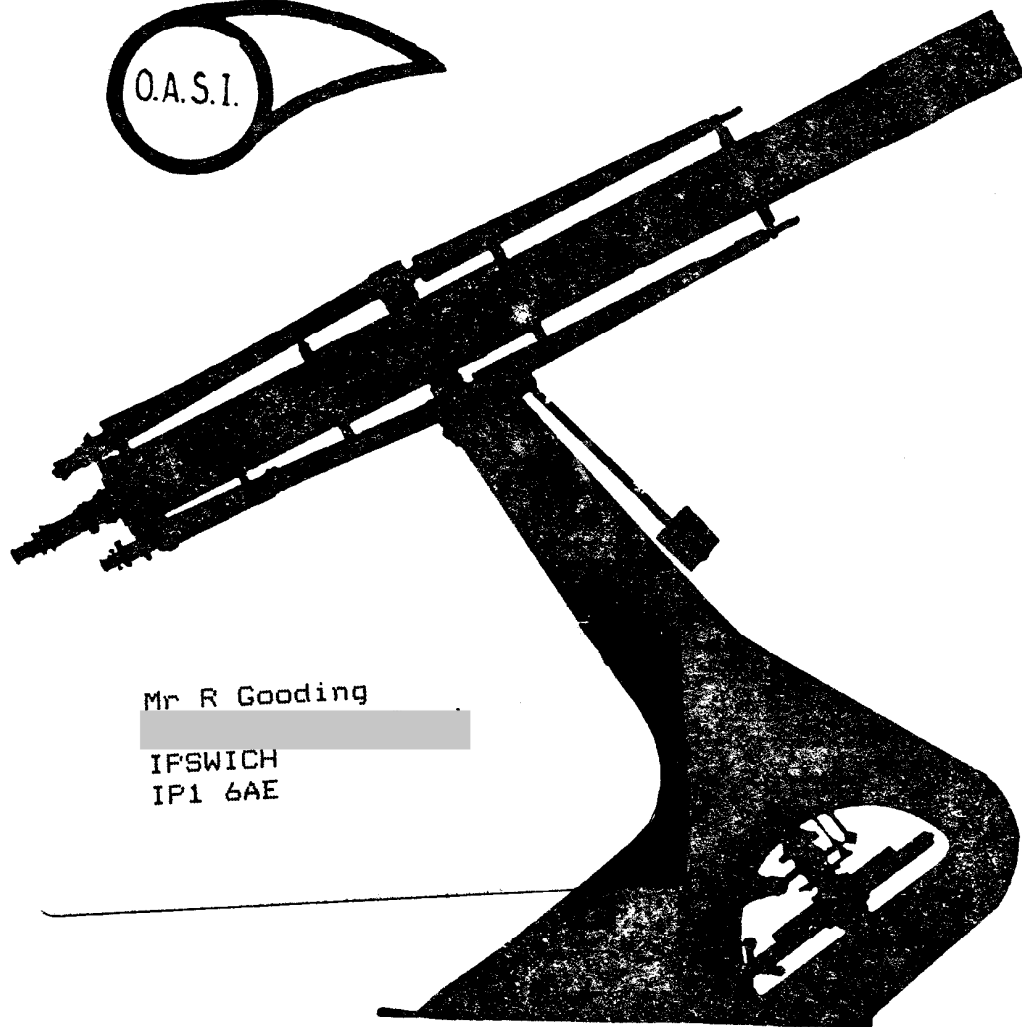


JUNE 1983

1. The Open Weekend raised about £60 towards Society funds.
2. The monthly magazine 'Astronomy' will be purchased for a trial period.
3. A new observing section under the direction of N. Taylor and T. Gillan will begin on Monday 13th June.
4. New members: Mr.S.Holloway, Mr.V.C.Maund,  
[REDACTED], [REDACTED],  
 Ipswich. Ipswich.



Mr R Gooding

[REDACTED]  
 IPSWICH  
 IP1 6AE

Visits to the Observatory

Tuesday June 14th: St Johns Youth Club 8pm

Saturday June 25th 2pm Parents Day HELP IS REQUIRED FOR THIS EVENT.

Space Shuttle: Will be on view on June 5th & 6th at Stansted Airport, returning from the Paris air show.

Sky at Night: Sunday June 5th (late) will be about Comet Alcock.

NIGHT SKY

Constellations (all times B.S.T.)

Draco, Hercules, Corona Borealis, Serpens Caput will all be near the meridian at midnight at the beginning of the month.

Sun Rises around 04.40 Sets 21.10 to 21.20  
 Solstice. 21d 23hr.

Moon ● 3rd ○ 11th ◐ 17th ● 25th

Occultations

16th	ZC 1612	mag. 7.3	D	23 hrs. 35.4 mins.
22nd	ZC 2302d	mag. 2.9	D	21 hrs. 37.5 mins.
22nd	ZC 2302d	mag. 2.9	R	22 hrs. 28.2 mins.

Mercury Greatest western elongation June 8th

Venus Greatest eastern elongation June 16th mag.-3.9

Mars Conjunction June 3rd

Jupiter Rises before sunset mag.-2.1

Saturn Rises before sunset. Eastern elongations of Titan 7th and 23rd.

Uranus On borders of Ophiuchus and Scorpius

Neptune Opposition June 19th mag. 7.7 In Ophiuchus

## VARIABLE STAR OBSERVATIONS

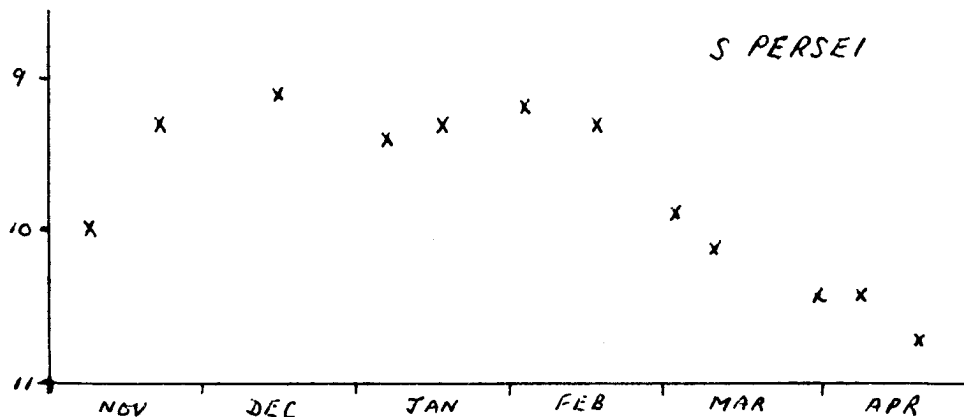
by Mike Nicholls

This month we have the light curve of S Persei, from November last year to April this year. This star is usually classed as a semi-regular variable although there does seem to be some disagreement. Some people class it as a long period variable.

It's average period is 826 days ( $2\frac{1}{4}$  years), which is relatively quite long, and is probably a bit erratic for the long period variable class. The magnitude range is from 8.6 to the 12th magnitude, rather long for the semi-regular class whose variations are usually within 2 magnitudes. Thus it looks like one of those borderline cases between the two classes.

The portion of light curve shown is only about 20% of a period. Although the variations are a little erratic, the general trend seems to be a decrease in brightness over the six months. This ties in with the observations over a similar period last year, when the star appeared to be at maximum; (see October 1982 journal).

Observations were made with an 8" reflector.



The long summer evenings during June mean that observations of faint nebulous objects cannot be made before 10:30 to 11:00 pm (BST). By this time in the evening the constellation Hercules is in a prominent position for observing, being high in the sky and almost due south.

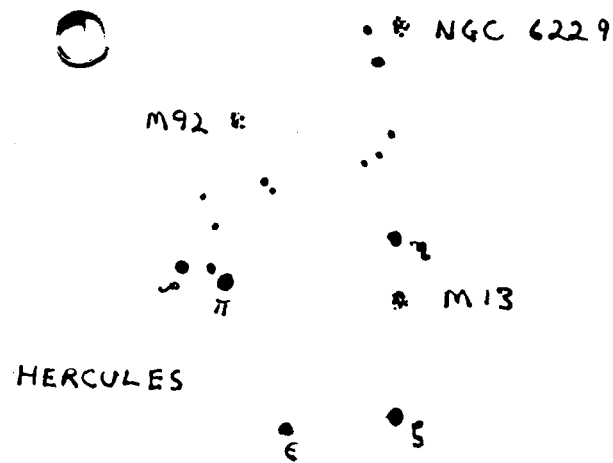
This constellation contains three globular clusters. The most famous is M13, certainly the most spectacular of the globular clusters visible from northern latitudes. The other two clusters are M92, another excellent object, and NGC 6229, rather faint compared with M13 and M92.

Globular clusters are distant and ancient star clusters that form a spherical 'halo' surrounding the galaxy, the majority of them lying within 60,000 light years of the galactic centre. Approximately 100 are known. A typical cluster contains of the order of 100,000 stars with the larger clusters containing upwards of 1 million. They are called globular clusters because of their spherical and condensed appearance in telescopes, but appearances are deceiving. The typical diameter of a globular cluster is 150 light years and even in the larger clusters containing maybe 1 million stars, the average distance between stars will be about 1 light year, even in the condensed central region.

M13 is one of the larger globular clusters and probably contains at least a million stars. It can easily be found with binoculars about 3 degrees south of Eta Hercules, as a fuzzy hazy star of the 6th magnitude. On clear dark nights it is visible with the naked eye. In a 3 inch telescope it appears as a bright misty patch about 10' in diameter. At least a four to six inch telescope is needed to resolve the outer edges into stars, while a ten inch will show resolution right to the centre of the cluster giving a truly splendid sight. The cluster is estimated to be between 20 & 25 thousand light years away with a diameter extending to 200 light years when the outlying members are included.

M92 is also easily found in binoculars about 9 degrees northeast of M13 (see map below). In a three inch telescope it appears as a bright misty ball but with no sign of resolution into stars. Again probably a four to six inch telescope will be needed to resolve the outer edges. In a ten inch it is easily resolved to the centre and although somewhat over shadowed by M13 it is a splendid object in its own right.

The globular cluster NGC 6229 is a much fainter object just detectable with 10 x 50 binoculars but is indistinguishable from a very faint star. In a 70mm Maksutov telescope it appears as a faint misty star very similar in appearance to M92 as seen in binoculars. In the ten inch telescope there is a hint of resolution but only when averted vision is used.



## Meteor Notes

D Barnard

The principle shower this month is the Lyrids. These reach maximum on June 15th, active from the 10th to 21st. Radiant 18hrs 32mins, +35degrees. These meteors tend to be blue.

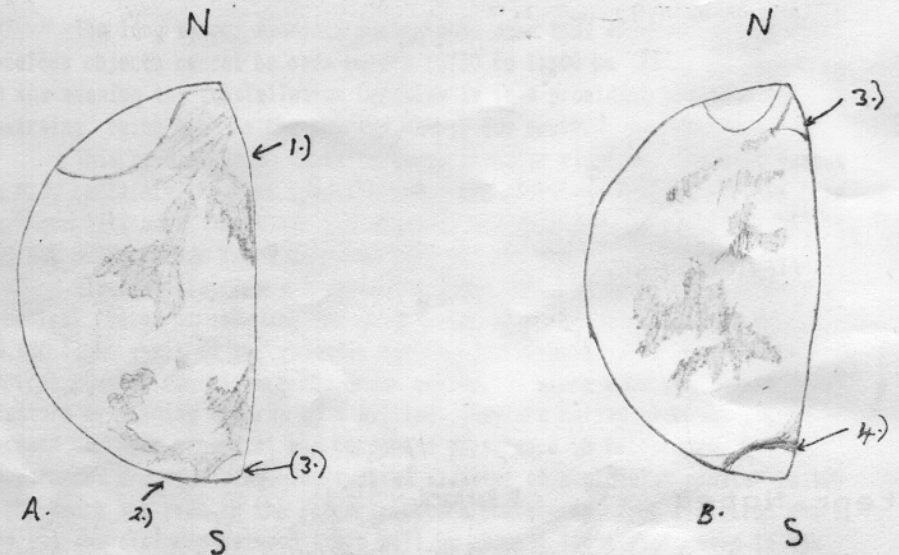
## Comet Iras-Araki-Alcock 1983d

By the time you read this the comet will be receding back to the depths of the solar system. This comet was only visible for six nights, as it was moving very quickly indeed. Discovered on May 4th the first reported observations by members were on May 7th at the meteor watch at Martin Cooks house. The ephemeris published by the 'Astronomer' early warning system, very fast as usual, was used to locate the position in Draco. On that night it appeared as a diffuse, though surprisingly bright, object in binoculars. Later that night it was visible to the naked eye but was very faint. After Draco the comet steadily brightened and moved on successive evenings through Ursa Minor, Ursa Major and the south through Cancer before being lost in the sunset glow. The comet was easily visible to the naked eye, appearing as a large roundish fuzzy patch. A tail was not apparent by eye although telescopic observations showed a clear asymmetry of the nucleus with respect to the surrounding diffuse material.

Hot on the heels of the above came the discovery of another comet called Suganosaigusa-Fujikawa 1983e. This is rather fainter and slower moving at present (19th May) in the constellation of Andromeda at a magnitude of +8. Closest approach to Earth is on June 13th and should be a naked eye object of magnitude +3.

## THIRD PHASE OF VENUS OBSERVATIONS

60mm Refractor used for Observations. J.Cornish



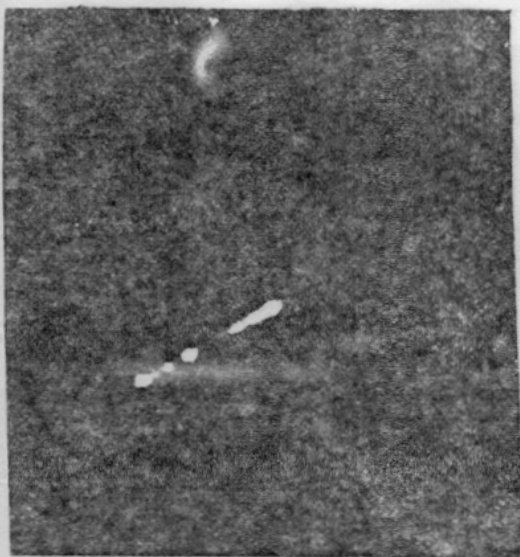
**A.** This observation of Venus, the conditions were extremely good showing LARGE amounts of CLEARLY seen detail, but towards the end of the observation conditions turned HAZY 3.5.83. Time 20.48 - 21.12 B.S.T. This observation was extremely interesting, showing two 'cloud polar cusp caps' the Northern one being very prominent, with a dark line under it. The Southern 'cusp cap' (Fig.3) was very small and difficult to identify its true shape.

The position (Fig.1) shows an extremely white area in the cloud cover, it was very prominent, and appeared to be the brightest area on the surface of the phase shown. The position (Fig.2) was a long curved quite bright area. Apart from these areas there were quite large amounts of dark areas showing, without straining the eye. One filter used was light green.

**B.** Observation of Venus, the conditions were good but quite misty. 8.5.83. Time 20.40 - 21.24 B.S.T. This was a very interesting observation showing two cusp caps (The Southern one seems a lot larger than when last observed on 3.5.83). These 'cusp caps' have a tendency to be harder to recognize with a light green filter as it becomes darker. The caps are best observed using a yellow filter in twilight conditions or broad daylight

The position marked (Fig.3) seems to have become a little darker when first observed on the 3rd but still retains its brilliant white colour. (Fig.4) seems to be a very dark curved line around the perimeter of the southern cusp cap. It was easily the darkest feature shown on the phase of Venus. Two filters used, a yellow filter and also a light green filter.

SOCIETY FIREBALL CAMERA



15-16th March  
22.36 - 05.00



9/10th April  
20.09 - 20.57

On the 15-16th March and the 9-10th April 1983 the fireball camera recorded unusual, bright objects. The 15-16th March event shows a very fast moving fireball-like trail taken between 22.00 - 05.00 hrs. The April 9-10 event shows a comet like object with 'companion' and is a complete mystery, taken between 21.00 - 22.00 hrs. Anyone who was observing on these dates can contact A.J. Smith.

A third fireball was recorded on May 13th at 22.38 B.S.T. low down in the S.W. If anyone saw this, contact A. Smith.

**PROGRAMME FOR JUNE**

- |   |  |   |
|---|--|---|
| <b>MONDAYS from 8pm</b><br>13, 20, 27       | <b>DOUBLE STAR &amp; PLANETS SECTION</b><br>Mr N Taylor [redacted], Walton<br>Felixstowe<br>Mr T Gillon [redacted], Felixstowe | Tel: Fel. [redacted]<br>Tel: Fel. [redacted]  |
| <b>TUESDAYS from 8pm</b><br>7, 14, 21, 28   | <b>GENERAL OBSERVATION SECTION</b><br>Mr N Gage, [redacted], Trimley<br>Mr R Hebbs, [redacted],                                | Tel: Fel. [redacted]<br>Tel: Fel. [redacted]  |
| <b>WEDNESDAYS from 8pm</b><br>8, 15, 22, 29 | <b>NEBULEA &amp; FAINT OBJECTS SECTION</b><br>Mr M Cook, [redacted], Ipswich<br>Mr D Payne, [redacted],<br>Wickham Market.     | Tel: Ips. [redacted]<br>Tel: W.Mkt [redacted] |
| <b>FRIDAYS from 8pm</b><br>10, 24           | <b>VARIABLE STAR SECTION</b><br>Mr R Gooding, [redacted], Ipswich<br>Mr M Nichols, [redacted],<br>Capel St. Mary.              | Tel: Ips. [redacted]                          |
| <b>SUNDAYS from 8pm</b><br>13, 27           | <b>GENERAL OBSERVATION SECTION</b><br>Mr R Adams, [redacted], Ipswich<br>Mr M Barriskill, [redacted], Ipswich                  | Tel: Ips. [redacted]                          |

**1983 COMMITTEE**

- |                        |  |                                       |
|------------------------|--|---------------------------------------|
| <b>CHAIRMAN</b>        | D Payne [redacted]<br>Wickham Market, IP13 OSD             | Works: [redacted]<br>Home: [redacted] |
| <b>VICE CHAIRMAN</b>   | R Cheesman [redacted], Corringham,<br>Lane, Essex SS17 9BU | Works: [redacted]<br>Extn: [redacted] |
| <b>SECRETARY</b>       | R Gooding [redacted], Ipswich                              | Works: [redacted]<br>Home: [redacted] |
| <b>TREASURER</b>       | M Nicholls [redacted], Capel St. Mary,<br>Ipswich, IP9 2EX | Works: [redacted]<br>Home: [redacted] |
| <b>MEMBERSHIP SEC.</b> | M Barriskill [redacted], Ipswich                           |                                       |
| <b>P.R.O.</b>          | D Barnard [redacted],<br>Ipswich, IP4 5PP                  | Home: [redacted]<br>Works: [redacted] |
| <b>MAINTENANCE</b>     | M Cook [redacted],<br>Ipswich, IP4 5QA                     | Home: [redacted]<br>Works: [redacted] |
| <b>FUNCTIONS</b>       | E Sims [redacted],<br>Ipswich, IP1 4HA                     | Home: [redacted]                      |
| <b>LIBRARIAN</b>       | N Gage [redacted],<br>Trimley, St Mary, IP11 9QY           | Home: [redacted]<br>Work: [redacted]  |