

FEBRUARY 1984

*** SUBSCRIPTIONS ***

Membership subscriptions are now due. Please pay promptly. The rates are £3, £5 and £6 for under 18's, adult and family memberships respectively. Journal Postage is £1.50 extra. Please send Cheques or Postal Orders to the Membership Secretary - Mike Barriskill (address on back page).

PATRICK MOORE BAA MEETING

Patrick Moore will be at the BAA meeting to be held at the Essex Hall, Clacton on Sea on 25th February. Clacton Astronomical Society has invited members of OASI to attend. Those members interested please contact Dave Payne or Roy Gooding for details and travel arrangements.

SOUTH EAST ESSEX 'APRIL DAY'

Tickets are still available for the South East Essex A.S. 'April Day' on Saturday 28th April. Interested members should contact R Gooding.

SOCIETY VISIT

There is a visit to the Observatory by the 'Society for Gifted Children' on Friday 10th February. Between 7pm and 8pm.

COMMITTEE MEETING

There will be an open Committee Meeting on Saturday 11th February at 7:30pm at the Observatory.

NIGHT SKY

Constellations (all times G.M.T.)

As a trial item I have included a map of the night sky for February. The scale on the left is in degrees altitude.

Sun Rises approx. between 07.44 - 06.50

Sets approx. between 16.44 - 17.30

Moon ● 1st ● 10th ○ 17th ● 23rd

Occultations

13th	ZC	898	mag. 6.0	D	2hr. 22.7m
14th		1058	" 7.0	D	1hr. 11.8m
14th		1208	" 6.4	D	24hr. 49.3m

Mercury Elongation decreases to 11° on the 25th as superior conjunction is approached in March

Venus Rises about 1hr.20m before sunrise in mid month. mag.-3.4

Mars Rises at 00.40 in mid month. Very close to Saturn on the 15th mag. 0.5

Jupiter Rises at 05.00 in mid month. mag. -1.5.

Saturn Rises at 00.40 in mid month. mag. 0.7. Close to the Moon on the 22nd.

Uranus Rises at 03.10 in mid month. mag. 5.8.

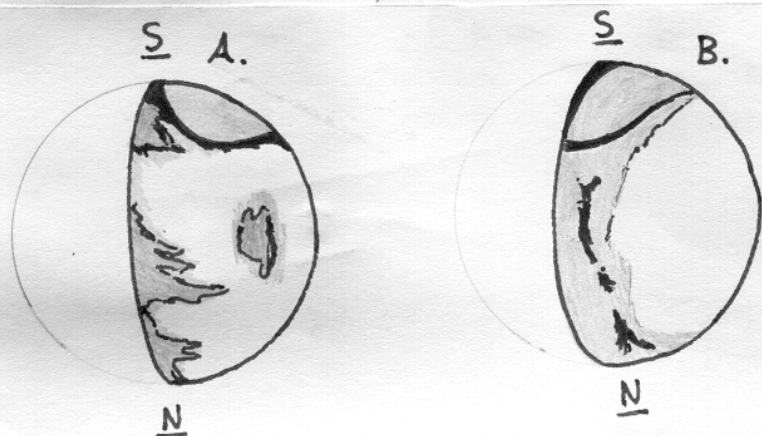
Neptune Rises at 04.30 in mid month. mag. 7.7.

R. Gooding.



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

60mm Refractor used to make observation



A. This observation was made in very good conditions 6/12/83 at 07.04 - 07.12. The Southern Cusp Cap was very prominent and easily recognisable. Yellow filter used.

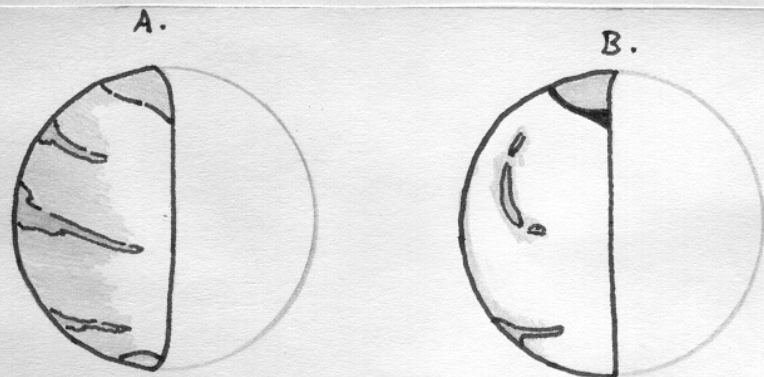
B. This observation was made under very steady atmospheric conditions 28/12/83 at 07.58 - 08.06. The terminator of the Southern Cusp Cap was very prominent and dark, standing out even when not using a yellow filter

Having recently studied my drawings of Venus during its evening apparition in June '83, near its time of dichotomy, I discovered that my drawing when dichotomy was predicted, was still well over half, and did not reach dichotomy until 22/6/83 (B). The predicted date, in accordance with B.A.A. Handbook was 17th June (A). After looking this up in several books I discovered that this effect was known as the Schroter Effect.

SCHROTER EFFECT

17th June '83

22nd June, '83



On the Wednesday after Christmas, with clear skies and after showing a group of visitors around the observatory, the remaining members of the society decided that a search for the 'beehive' was long overdue.

So, on the following Monday morning at 10:00 hrs, armed with the necessary equipment (30ft ladder, circular saw, hammer etc.) five members plus one guest assembled in the dome. After hauling the ladder the 60ft up the side of the observatory (the spiral stairs were not designed to admit such a long object) our resident Spider Man, Colin Button, was persuaded that he should ascend the ladder to start the search. You see, it was not the well known Messier object we were after, but the nest of honey bees that took up residence in the observatory shutter a couple of years ago. At the last estimate in the summer of '83, about 60,000 bees were living in the dome and they could increase by 30,000 per year. Anyone who worked in the observatory last summer will know of the problems of co-existence with 60,000 bees, any further increase in these numbers was intolerable. However we did not want to destroy the bees, unless absolutely necessary, so removing the nest intact was going to be attempted.

Someone mentioned that bees were not active below 64 degrees Fahrenheit and that it would be quite safe to attempt the job (that was only the first big mistake).

Armed with the circular saw, Colin ascended the ladder and very carefully cut the first of the mahogany planks lining the dome shutter. After removal, we found that we had scored a bulls eye in the 20ft by 6ft shutter. Just behind the plank could be seen the edge of the honey comb. Further planks were removed and more of the honeycomb came into view. By this time some of the more inquisitive members of the nest had begun to fly around to find out what was disturbing their peace. So much for 64 degrees Fahrenheit! At this point it was decided that a more stable platform was required, and a scaffold tower was borrowed from the School. The bees were now becoming rather active and our guest, Mr Drew, a bee keeper, decided he should take over the work from the rather apprehensive Colin. Further planks were removed and the whole honeycomb plus a football sized huddle of 25,000 - 40,000 bees became visible.

The bee keeper said that it would be better if the bees could be allowed to settle down for a while as by this time several squadrons of them were zooming around the dome. Time for lunch!

Returning a couple of hours later we found that the bees had indeed quietened down. The bee keeper arrived with a large box, equipped with special frames on which to tie the honeycomb. I should explain at this point, that the nest was shaped rather like the 'Rising Sun' flag of Japan, with a central core and several rays or tongues of honeycomb radiating from the centre.

Surplus honeycomb from the edge of the nest was dropped into the box to provide food for the bees over the winter (and astronomers apparently judging by

the number of fingers that were dipped into the very tasty honey). Working with care and obvious enthusiasm, Mr Drew cut each of the 20-24 inch long tongues of the honeycomb away from the copper clad outer skin of the dome and tied them onto the specially constructed frames that would be the new home for the bees over the winter.

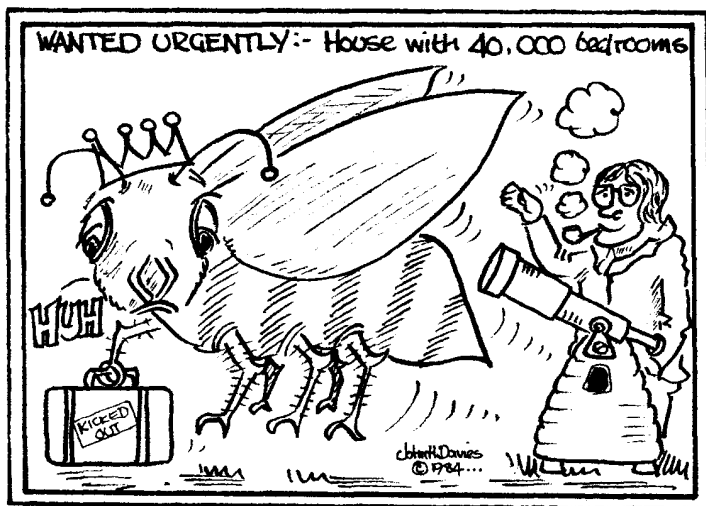
When all the honeycomb had been removed there were still several thousand bees clustered inside the shutter and they had to be brushed off and dropped into the box. This completed, the lid was positioned and the box lowered the fifteen feet to the floor of the observatory. The planks were replaced in the shutter, and the original bees entrance covered by a copper plate.

Mr Drew explained that as long as the queen bee was undamaged the colony stood a good chance of survival until spring, when it would be rehoused in a normal hive.

There can be very few astronomers who can photograph the 'Beehive' using nothing more sophisticated than a flashgun, and despite the hard work involved, over a long day, the five members present had a very rewarding and interesting time. Finally a word a word must be said about the skill of the bees, the honeycomb is constructed of a wax formed into thousands of perfect hexagons.

Our thanks to Mr Drew, without whose skill the day would probably had a very different outcome. The members who were present were: M Cook, C Button, D Barnard, E Sims and myself A J Smith.

P.S. M44, the what?



Meteor Notes February 1984 D Barnard

There is one major shower this month, the Alpha Aurigids.

Maximum between Feb 6th - 9th. Active until the middle of the month. ZHR = 12. Radiant RA 04 hrs 56mins DEC +43 degrees. Telescopically active. Slow bright meteors. The broad maximum suggests that this is an old stream.

The brilliant constellation Gemini with the bright pair Castor and Pollux is high in the night sky during February. The constellation contains one Messier Object, M35, a magnificent galactic cluster. In addition there are a dozen or so fainter objects visible with moderate apertures. Amongst these are three planetary nebula one of which, NGC 2392, is a bright object of the 8th magnitude.

The Galactic cluster M35 has an integrated magnitude of 5.5 and can be seen without optical aid on dark clear nights. In binoculars it appears as a misty patch with some resolution of the stars in 10x50's. A three inch resolves the brighter members and begins to reveal some of the true beauty of the cluster. In a ten inch telescope it is a magnificent sight. It is about half a degree across and so requires low powers to be seen effectively. The cluster is about 2200 light years away with a diameter of around 30 light years. It contains at least 300 stars with a total luminosity for the cluster of 2500 suns.

The planetary nebula NGC 2392, sometimes known as the 'Eskimo Nebula' because of its appearance in large telescopes, is a small 8th magnitude object consisting of a 10.5 magnitude star surrounded by a disk of glowing gas some 40" in diameter. It is indistinguishable from a faint star in binoculars, while with a 3 inch and about 100x magnification the disk becomes visible although the central star is not separately discernible. In a 10 inch the nebula is seen as a central star surrounded by a disk of gas. the central portion of the disk appears slightly fainter than the edge and something of a ring structure is seen. The object is probably about 3000 light years away and has a diameter of about 0.6 light years.



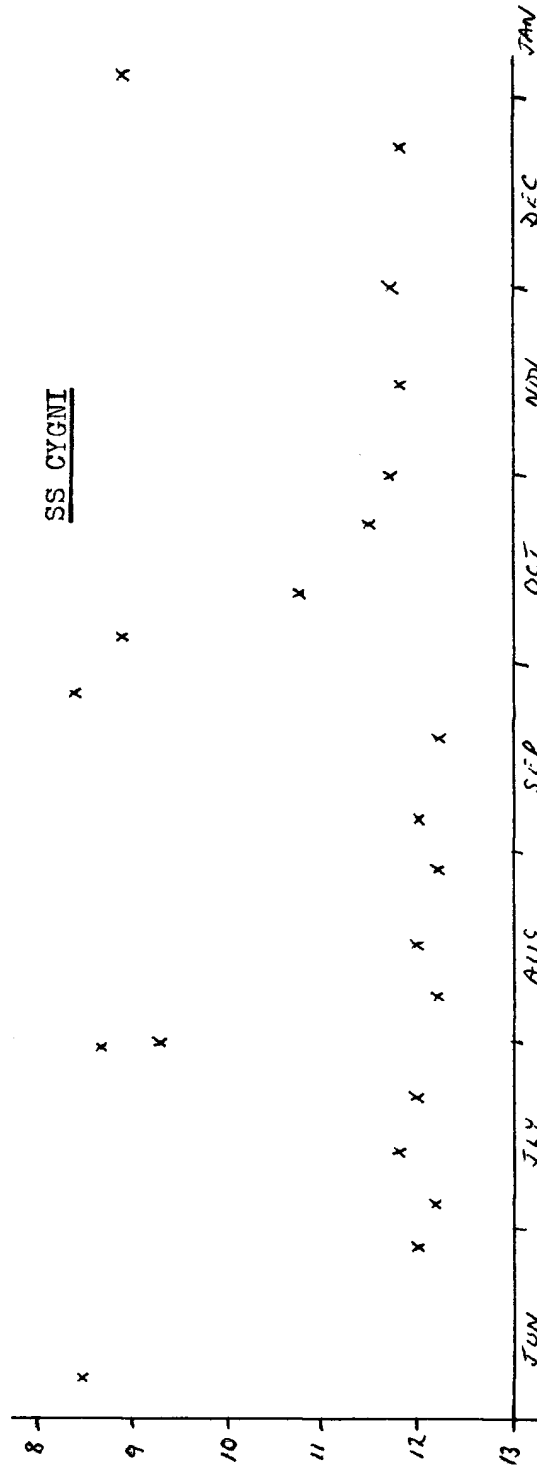
VARIABLE STAR OBSERVATIONS

by Mike Nicholls

This light curve shows SS Cygni during the second half of 1983. It is the best known member of a class of stars called dwarf novae. These stars remain at a minimum for most of the time, but then quite suddenly and unpredictably rise to a maximum, which may be up to 6 magnitudes brighter, within a day or two. They stay at maximum for a few days and then fall more slowly back to a minimum again.

The light curve shows four maxima. The one at the end of July and the one in September/October show that the maxima can be of different duration. Notice the longer minimum following the longer duration maximum. This is a normal occurrence with the dwarf novae.

Observations were made using an 8" reflector



PROGRAMME FOR FEBRUARY 1984

MONDAYS from 8pm 6, 13, 20, 27	DOUBLE STAR & PLANETS SECTION Mr N Taylor [redacted], Farmlands Trimley Mr T Gillan [redacted], Felixstowe	Tel: Fel. [redacted] Tel: Fel. [redacted]
TUESDAYS from 7pm 7, 14, 21, 28	GENERAL OBSERVATION SECTION Mr N Gage, [redacted], Trimley Mr R Newman [redacted], Felixstowe	Tel: Fel. [redacted] Tel: Fel. [redacted]
WEDNESDAYS from 8pm 1, 8, 15, 22, 29	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 10, 24	VARIABLE STAR SECTION Mr R Gooding, [redacted], Ipswich Mr M Nicholls, [redacted], Capel St. Mary.	Tel: Ips. [redacted] Tel: Ips. [redacted]
SUNDAYS from 8pm 5, 19	GENERAL OBSERVATION SECTION Mr R Adams, [redacted], Ipswich Mr M Barriskill, [redacted], Ipswich	Tel: Ips. [redacted]

1984 COMMITTEE

CHAIRMAN	D Payne [redacted], Wickham Market, IP13 OSD	Work: [redacted] Home: [redacted]
VICE CHAIRMAN	R Cheesman [redacted], Corringham, Essex SS17 9BU	Work: [redacted] Extn: [redacted]
SECRETARY	R Gooding [redacted], Ipswich IP1 6AE	Work: [redacted] Home: [redacted]
TREASURER	M Nicholls [redacted], Capel St. Mary, Ipswich, IP9 2EX	Work: [redacted] Home: [redacted]
MEMBERSHIP SEC.	M Barriskill [redacted], Ipswich IP1 2EZ	
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	N Gage [redacted], Trimley St Mary, IP11 9QY	Home: [redacted] Work: [redacted]