

South East Essex Astronomical Society 'April Day'

High lights of this event's programme include

1. Lecture by Heather Cooper
2. Quiz. Teams:- Captain Patrick Moore plus one member from S.E.E.A.S., Chelmsford and Rayleigh A.S.
Captain Nigel Henbest plus one member from S.E.E.A.S., Orwell & Loughton A.S.
3. Lecture by Patrick Moore.
Tickets cost £1 and 50p for under 18 's. Participating Societies have been given preference for these tickets.
Any one interested contact either R. Gooding or D. Payne as soon as possible.

New Members

Mr. S. Clark	Mr. A. Patzold,	Mr. T. Holland,
[REDACTED],	[REDACTED],	[REDACTED],
Crowfield,	Ipswich.	Shottisham,
Nr. Ipswich.		Woodbridge.

NIGHT SKY

Constellations (all times G.M.T. clocks 1 hour back on 23rd).

The autumn constellations of Perseus, Adromeda and Pegasus dominate much of the sky towards the South by mid month at 21.00

Sun Rises approx. 06.20 to 07.00 Sets approx. 17.40 to 16.30

Moon ● 6th ☽ 13th ○ 21st ◑ 29th

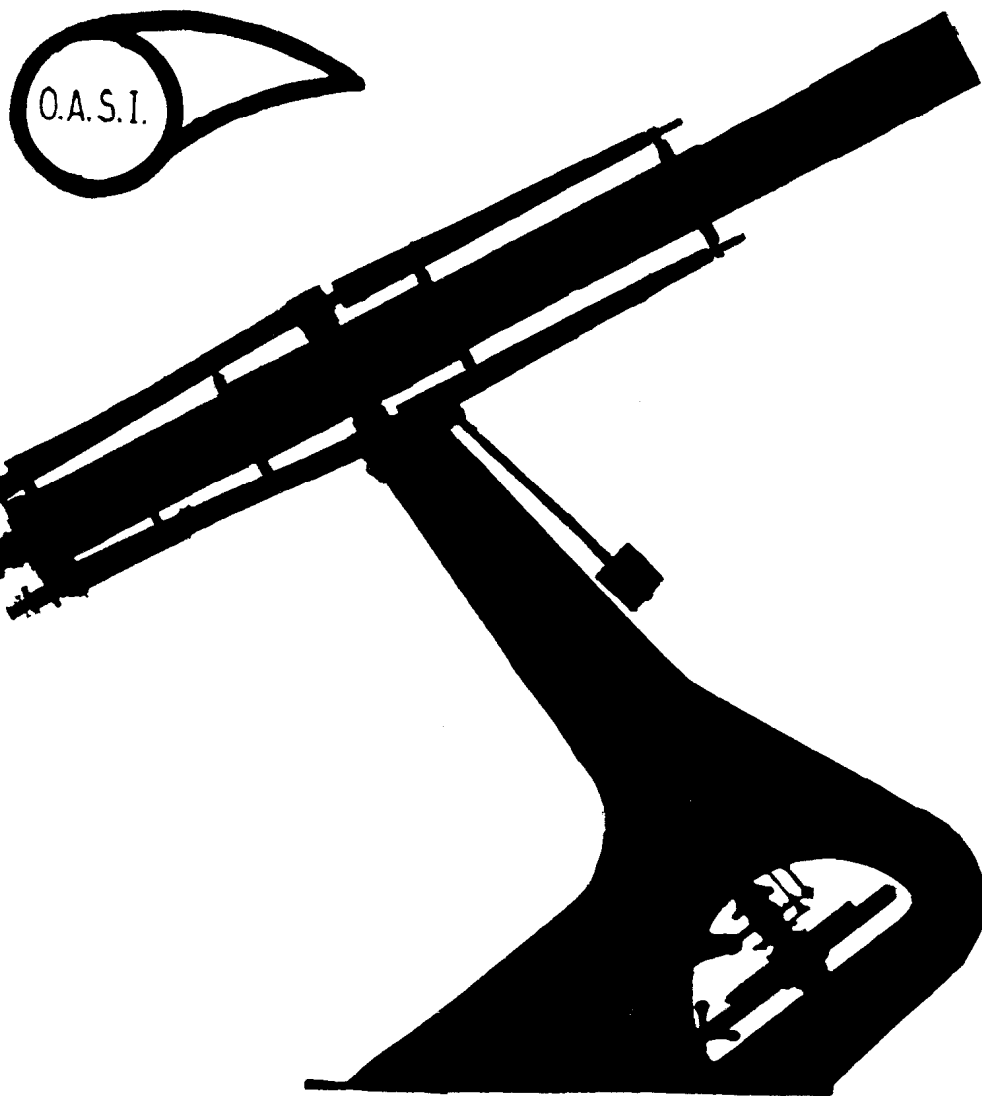
Occultations

16th	ZC 3227	mag. 6.4	D	21hr 10.9m
17th	" 3343	" 5.8	D	20h 13.8m
17th	" 3349	" 4.2	D	21hr 51.8m
31st	" 1544	" 5.7	R	3hr 47.5m

Mercury Greatest Western elongation 1st (18°) mag. -0.4
Superior conjunction on the 30th.

Venus Visible before sunrise as a mag. -4.2 object
Mars Conjunction with Venus on the 28th.
Jupiter Sets about 2 hrs. after sunset mag. -1.4
Saturn Conjunction on the 31st.
Uranus Sets about 1 hr. 40 mins. after sunset mag. 5.8
Neptune Sets about 3 hrs. after sunset mag. 7.7

R. Gooding.



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

This month there are 2 major showers :-

1) Orionids

Max Oct. 21st (Active from Oct. 16-26). ZHR = 20
Radiant 06:24 +15degrees. Full moon at maximum, so rather unfavourable. Dusty trains.

2) Taurids

Maxima actually occurring on Nov. 3rd., but active from October 20th. ZHR = 12. Radiant 03:44 +14degrees, and 03:44 +22degrees. Rich in fireballs. Slow meteors, Favourable.

Other Items.

The eagerly awaited occultation of Jupiter on Sept. 12th was unfortunately totally cloudy in what would have been a very interesting and spectacular event.

Society pens have now been purchased, on sale @ 15p each at the Dome

Events.

- Sat Oct. 1st. Society trip to Herstmonceaux. Fully booked (Admission by ticket only)
- Tues. Oct. 11th. Visit by Bramford Young Wives 8pm.
- Sat. Oct. 15th. 7.30pm. Open Committee Meeting.

Membership List.

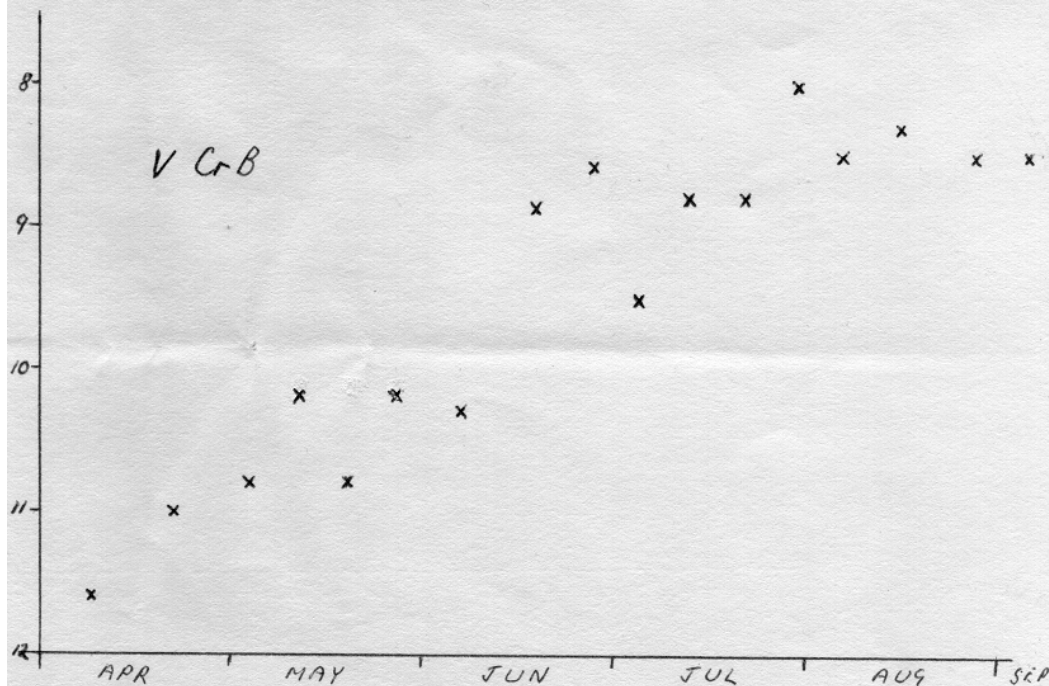
Many members noticed that the list distributed with last months journal omitted Roy Cheesman. The computer apologizes for this and another list will be prepared for either this or the November journal.

by Mike Nicholls

The light curve shown below, is that of V Coronae Borealis from April to early September this year. This star belongs to the class of long period variables and has a period of approximately 358 days. The curve shows a rather erratic rise towards maximum. This erratic behaviour maybe real or maybe due to having only one persons observations. It is a very red star and these tend to produce more observational error than other colours.

The light range is stated as being from magnitude 8.5 to 12.8, thus a considerable part of the rising portion is shown here. It is difficult to say whether the maximum has been reached from the nature of this curve, until the star begins to fade again. The predicted time for maximum was August 6th.

Observations were made using an 8" reflector.



IRAS makes the headlines two months running! This infra-red satellite has now discovered a comet tail where none had been suspected before. So all comets could have tails, but these may not be visible optically.

IRAS has now discovered 4 comets, a forming star and a planetary system maybe (see September journal).

The comet in question is a regular visitor to the solar system called Comet Tempel 2. It is extremely faint, and has a period of 5.28 years. The satellite was to have been engaged in hunting asteroids crossing the Earth's orbit. A swarm of objects moving through space in formation was seen. When the satellite actually picked up radiation from the body of the comet, the IRAS astronomers' suspicions were confirmed. The tail is over 30 million Km long, but only 300,000Km across. Although IRAS has tracked several comets it hasn't detected a tail on any before. Tempel 2 was close to the plane of the Earth's orbit - virtually edge-on - so we were observing the greatest part of the dust tail when the discovery was made. When the comet is observed again in December the tail should be invisible, when it will be out of plane.

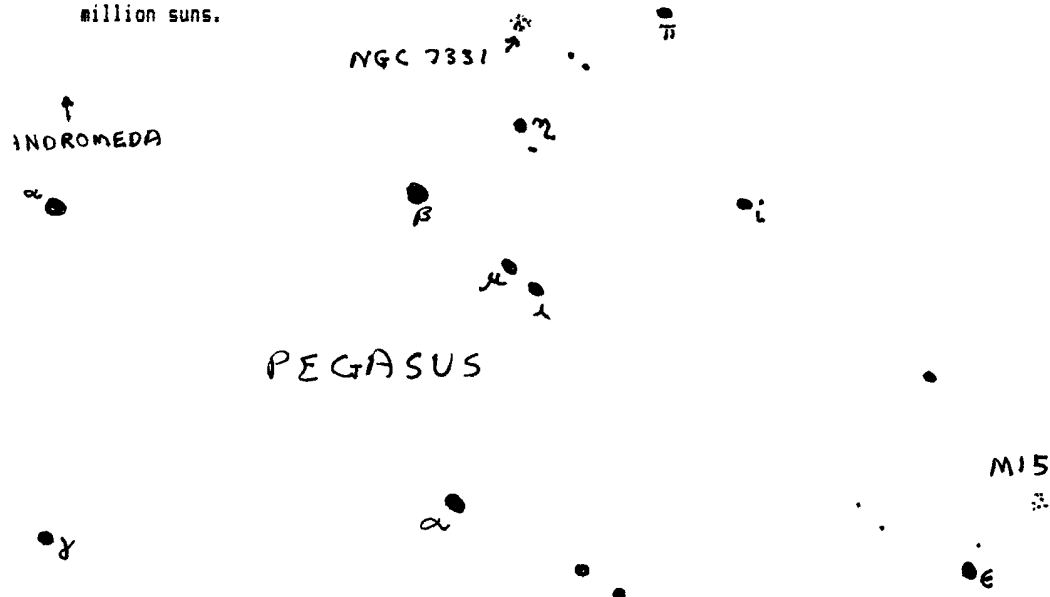
Unfortunately Tempel 2 maximum magnitude will only be 16.9, too faint for most telescopes!

(Source:- New Scientist Vol. 99 No. 1374 p.685)

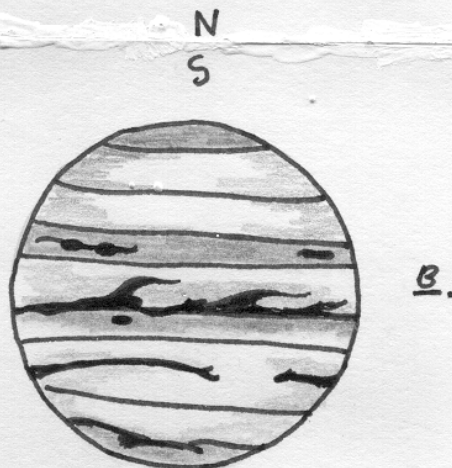
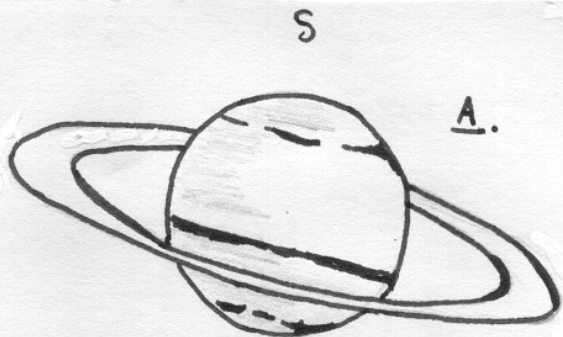
The constellation Pegasus contains many faint galaxies and one splendid globular cluster M15.

The cluster has an apparent magnitude of 6.5 and is easily seen in 10 x 50 binoculars as a fuzzy star about 4 degrees north west of Epsilon Pegasi. It is more condensed than many globular clusters and has a bright dense core. Resolution of the edges is just achievable on good dark nights with a 3 inch telescope. With a 10 inch telescope the cluster can be resolved to the centre and is a glorious sight ranking among the finest objects of its type. The cluster is about 39,000 light years away with a luminosity of 200,000 times that of the sun. The diameter of the cluster is 130 light years. M15 has been found to be a source of X radiation and probably contains at least one supernova remnant. It has even been suggested that the supernova remnant could be a 'black hole'. The cluster also contains a planetary nebula of mag 13.8 (too faint for most amateur telescopes) about 1" in diameter. It was discovered by F G Pease on plates taken with the Mount Wilson 100" telescope in 1927.

The brightest galaxy visible in Pegasus is NGC 7331 shown under the Herschel catalogue number 53 on Norton's Star Atlas. It has an apparent magnitude of 10.4 and is visible in a 3 inch telescope as a faint elongated misty patch. In a 10 inch telescope it is seen as an elliptical patch of light about 10' x 2'. The galaxy is often shown in photography in astronomy books as a view of how the Milky Way, our own galaxy, might appear if viewed from intergalactic space. NGC 7331 is a large galaxy similar in structure to the Andromeda Galaxy M31. It lies at a distance of about 50 million light years and has a diameter well over 100,000 light years. The total luminosity is estimated to be about 50,000 million suns with a mass of about 140,000 million suns.



OBSERVATION OF SATURN AND JUPITER



Positions of Jupiter's Moons

- A. Observation of Saturn 11/8/83 Time 9.12 - 9.20 p.m.
 Conditions excellent. No moons observed, but three very prominent belts could be seen. The middle one probably being the shadow of the rings.
- B. Observation of Jupiter 20/8/83 Time 8.36 - 8.46 p.m.
 Conditions good but blurring at quite regular intervals, interesting features between the two Equatorial belts, which were considerably fainter than shown.
- C. Cornish

PROGRAMME FOR OCTOBER

MONDAYS from 8pm 3, 10, 17, 24, 31	DOUBLE STAR & PLANETS SECTION Mr N Taylor [redacted], Walton Felixstowe Mr T Gillon [redacted], Felixstowe	Tel: Fel. [redacted] Tel: Fel. [redacted]
TUESDAYS from 8pm 4, 11, 18, 25	GENERAL OBSERVATION SECTION Mr N Gage, [redacted], Trimley Mr R Hebbs, [redacted],	Tel: Fel [redacted] Tel: Fel [redacted]
WEDNESDAYS from 8pm 5, 12, 19, 26	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 14, 28	VARIABLE STAR SECTION Mr R Gooding, [redacted], Ipswich Mr M Nichols, [redacted], Capel St. Mary.	Tel: Ips. [redacted] Tel: Ips. [redacted]
SUNDAYS from 8pm 2, 16, 30	GENERAL OBSERVATION SECTION Mr R Adams, [redacted], Ipswich Mr M Barriskill, [redacted], Ipswich	Tel: Ips. [redacted]

1983 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	Work: [redacted] Home: [redacted]
TREASURER	M Nicholls [redacted], Capel, Ipswich, IP9 2EX	Work: [redacted] Home: [redacted]
MEMBERSHIP SEC. P.R.O.	M Barriskill [redacted], Ipswich 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]