

NIGHT SKY

All times GMT

SUN Rises approximately 04.20 to 05.10
Sets approximately 20.00 to 19.00

MOON



6th



13th



20th



28th

MERCURY Mercury will be in the evening sky this month. Greatest eastern elongation (27°) is on the 11th. It will not be easy to find this month as Mercury will be setting only about one hour after sun set. Mag. 0.6

VENUS Venus will remain visible low down in the early morning sky. At the beginning of the month it will rising about 2 hours before the sun. Mag. -3.9

MARS Mars will be rising at 23.30 at the beginning of the month and at 22.00 towards the end. Mag. -0.4

JUPITER Jupiter will be visible in the morning sky, rising about 3 hours before the sun at the end of the month. Mag. -1.8

SATURN Saturn will be setting shortly after midnight. Mag. 0.2

URANUS Uranus will be setting by 23.30 at the end of the month. Mag. 5.6

NEPTUNE Neptune will be setting at midnight at the end of the month. Mag. 7.7

SOCIETY NEWS NATIONAL ASTRONOMY WEEK

The third National Astronomy Week is to be held in November from the 17th to the 24th. The observatory will be open for the public for most of the week, as is normal for such events as much help as possible will be required. More details about the programme will be given in the September newsletter.



SUMMER SKY CAMP

On the weekend of July 21st-23rd members of astronomical societies associated with the newly formed Federation of East Anglian Astronomical Societies gathered at the Dower House camp site in Thetford Forest. Avoiding any jokes about astronomical activity being 'in tents' I should explain that Sky Camps are all about taking your telescopes or binoculars and tent, or caravan, to a rural campsite with good dark skies to enjoy excellent observing conditions without a long trek back home at the end of night. Orwell AS (Ipswich) was represented by Gary Marriott and myself (Pete Richards) and we joined members of North Star AS (Thetford and Diss) and Lowestoft and Lowestoft and Yarmouth Regional Astronomers.

Observations were made of sun spots, by day, and various messier and other faint objects, along with planets and Comet Levy by night. A number of bright meteors were also seen which might have been early Delta-Aquarids.

Since solar observation was not likely to take all day we took the opportunity to explore the area which has many points of interest : nature trails wind through the forest ; the remains of the old estate, of which the Dower House was a part, are worthy of exploration.

On Saturday the party took a trip to Bury St Edmonds to see the sights and to ponder the plight of a disused observatory with a 6 inch refractor above some council buildings. The observatory was established around the turn of the century when the building was the venue for meetings of local literary and scientific societies. With no club operating at present it is likely that the observatory will fall into an irreversible state of decay. It was agreed that the Federation should raise the issue in the near future.

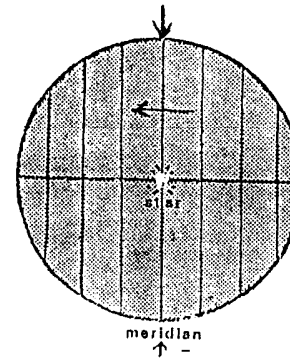
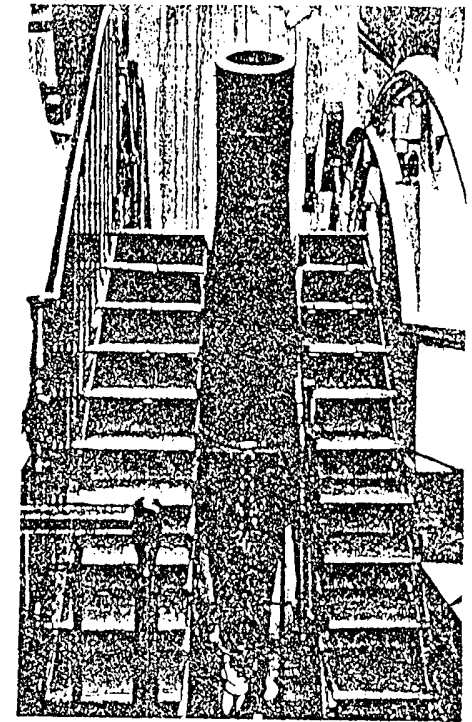
Saturday proved to be a very warm day and after challenging a group of American Campers to a game of Volley Ball and engaging in a practice session the weather - not our sporting abilities - forced us to withdraw. An evening Barbecue, however, benefited by the weather and proved more enjoyable for the Sky-Campers.

The next Sky Camp will be arranged for the Autumn or next Spring when the nights are longer and the seeing likely to be at its best : look out for it !

THE GREAT TRANSIT TELESCOPE

For over a hundred years (1851 to 1954) this magnificent instrument controlled time distribution in Britain, and from 1884 time over the whole World. During its operation 600,000 observations were carried out.

A TRANSIT TELESCOPE is one set to swivel only in a N. S. direction, around the observers MERIDIAN on bearings set in two E. W. pillars. Looking through the eyepiece of such a telescope will show stars or other sky objects crossing the centre of the field of view, which is of course the Meridian. Such a crossing can be 'timed' giving the position of the object in the sky, or if this is already known then the crossing can be used as a time standard. The telescope becomes the fixed "hour hand" of a "sky clock" and the stars the moving "numbers" on the clock face.



There was also a facility whereby the telescope could be pointed downwards to observe the reflected light from a star off a tray of mercury. This was yet another double check. To do this the observer climbed the ladders on either side of the telescope tube, these ladders to this day obscure the view of the pivots and bearing pieces.

There are earlier transits instruments at Greenwich, the first was set up by Edmond Halley, but the GREAT TRANSIT TELESCOPE by George Airy, seventh Astronomer Royal was an exercise in massive precision engineering. One glance shows how much more massive it is compared to Troughton's Circle in the next room. The mechanical parts of the AIRY TRANSIT were made by Ransome and Sims of Ipswich and the six-inch aperture lens by Troughton of London.

The Airy circle swivels in simple bearings, but the great weight of the telescope is relieved by counterweights so that only 10% of the weight rubs against the TRUNNIONS to cause wear by friction. Such friction would wear away the metal thus ruining the optical alignment of the telescope leading to observational inaccuracies.

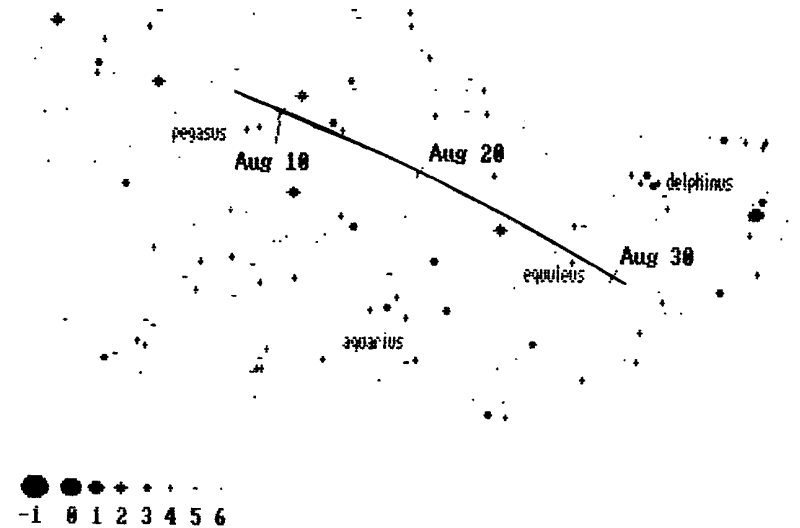
Comet Levy 1990c

David Payne

After the completely disappointing apparition of comet Austin in the spring of this year no one wants to make predictions about how 'good' an apparition any new comet will make. However as far as I am concerned comet Levy 1990c, discovered by David Levy, is already infinitely superior to comet Austin on three counts. First - I have now observed it on several occasions, second - it is an easy evening sky object and third - I can observe it from the site of my observatory at home!

My latest observation of comet Levy was on Sunday evening of 29th July 90 using 10x80 binoculars. It was lying mid way between δ Pegasi (officially α Andromedae but I always think of it as part of Pegasus) and β Pegasi the top two stars of the Square of Pegasus. The comet is an easy binocular object smaller and fainter by one to two magnitudes than the Andromeda Nebula M31. There was no real visible sign of a tail but the coma was distinctly displaced off centre and towards the west with respect to the bright central nucleus.

Comet Levy is going to be well placed for observation throughout August steadily brightening (at least it should do!) and possibly becoming a naked eye object by the end of the month. After August it moves south as it approaches perihelion on October 24th and therefore will be much more favourable for southern observers when at its brightest (a regular occurrence it seems for latter day comets!). Orbital predictions are not very accurate yet but the approximate path for the comet is shown on the chart below.



C. Levy. 1990C

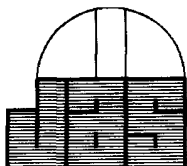
Astro-Camp '90.

It's August again and time for the annual Astro-Camp in Ashdown forest in East Sussex. The camp which is in it's 10th year is organised by Norman Fisher and is open to anyone. So long as you are willing to put up with clear skies, low levels of light pollution and pleasant helpful company then you are most welcome. If like the rest of us you can't observe unless half of the street lamps in Britain are next door, your neighbours think you are a peeping-tom and your scope dews up as soon as you look at it, then this camp won't interest you. But, you might as well rough it for the sake of your sanity.

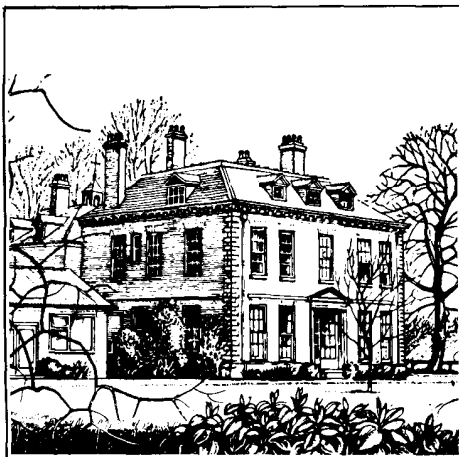
The camp is located south of East Grinstead near the town of Forest Row. To get there from the M25 you take the A22 exit and head south, through E'Grin-stead and Forest Row. You will now be going up hill along the A22. You will pass on your left on a sharp right hand bend the Broadstone Warren Scout camp, approx 600yards beyond this you should see on your right a small track flanked by two white posts and a sign marked "Private-No Entry". Ignore this sign as this is our entrance to the site. You may also see the Astro-Camp sign which is a graticule and tent in blue. Be very careful this entrance is hard to spot at speeds of over 40mph and the track as is very bumpy so go careful.

I will be there for both weeks and I will look forward to seeing anyone from Orwell and I might even buy you a drink. I have included in this article a copy of the details for the astro-camp as I received them.

G. Marriott.



Your invitation to the
Junior Astronomical Society
1990 Weekend Course, Nov. 9-11



- **Venue:** the popular Preston Montford Field Centre (see left), set in acres of rolling parkland just outside Shrewsbury
- **Dates:** from the evening of Friday November 9, to the afternoon of Sunday November 11.
- **Topic:** The planet Mars
- **Speakers:** Professor Iwan Williams, Queen Mary College
 Cliff Meredith, JAS planetary section director
 David Graham, former JAS planetary section director. Read David's report on the last opposition of Mars in the July 1989 Popular Astronomy.
 Richard Baum, director of the BAA terrestrial planets section
 Julian Baum (son of Richard), space artist
- **Cost:** £47.50 per person. This includes full board and accommodation at the Field Centre.

The JAS weekend course returns to the Preston Montford Field Centre near Shrewsbury, possibly for the last time. The theme of this year's course is the planet Mars, which reaches a highly favourable opposition on November 27 and will be well placed for observation during the weekend (weather permitting). There will also be guided deep-sky observing sessions.

The course is open to everyone interested in astronomy. The cost of £47.50 includes all meals and

accommodation (no extras). You can pay the full amount now or send a deposit of £15 and pay the balance later.

The accommodation is in dormitories that sleep several people, so you will have to share. We try to ensure that individuals are placed with suitable companions. If you like, you can share a room with friends (if you are coming with a friend, please tell us on the form). Also, please state your age and sex on the form, as it helps us to arrange accommodation.

You will need to bring pillowcases and sheets, or a sleeping bag if you prefer. You will also need warm clothing for observing sessions, and you should bring wellingtons or sturdy boots in case the grounds are muddy. Don't forget your binoculars or telescope.

A mini bus from the Field Centre will be available to collect you from Shrewsbury station after 5pm. Let us know what time you are arriving. Please phone (0743) 850396 if you miss it.

PROGRAMME FOR AUGUST

DAY	DIRECTORS	SECTION	PHONE No.s
Mondays from 8.00pm			
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]
Tuesdays from 8.00pm			
GENERAL OBSERVATION SECTION			
7-14	Mr R Newman	[Address above.]	Tel. Fel. [redacted]
21-28	Mr J King	[Address above.]	Tel. Fel. [redacted]
Wednesdays from 8.00pm			
NEBULA AND FAINT OBJECTS SECTION			
1-8	Mr M Cook	[redacted], Ipswich, IP4 5PZ.	Tel. Ips. [redacted]
15-22	Mr D Payne	[redacted], Wickham Market, IP13 OSD.	Tel. W.M. [redacted]
29			
Fridays from 8.00pm			
PLANETARY AND LUNAR SECTION			
3-10	Mr P Richards	[redacted], Ipswich, IP4 1QB.	Tel. Ips. [redacted]
17-24	Mr R A Lobbett	[redacted], Felixstowe, IP11 8UJ.	Tel. Fel. [redacted]
31	Mr G Marriott	[redacted], Ipswich, IP4 4JB. [Assistant Director]	Tel. Ips. [redacted]

All nights are open to all members, but, on nights other than Wednesdays, ring directors to confirm. Directors will also be able to tell you if a group visit is taking place. All sections observe anything of interest, but the title indicates the main specialism.

Lectures and other events : There will be a meteor watch to observe the Perseid shower on Saturday August 11th, at Lexington creek. Meet at the Ship Inn, Lexington at 10pm.

1990 COMMITTEE

CHAIRMAN	D Payne	[Address above.]	Home: [redacted] Work: [redacted]
VICE CHAIRMAN /VISITS CO-ORD	D Barnard	[redacted], Ipswich, IP4 5PP.	Home: [redacted] Work: [redacted]
SECRETARY	R Gooding	[redacted], Ipswich, IP1 6AE.	Home: [redacted] Work: [redacted]
TREASURER	M Nicholls	[redacted], Capel St Mary, Ipswich, IP9 2EX.	Home: [redacted] Work: [redacted]
MAINTENANCE CO-ORD	M Cook	[Address above.]	Home: [redacted] Work: [redacted]
JOURNAL CO-ORD	E Sims	[redacted], Ipswich, IP1 4HA.	Home: [redacted]
LIBRARIAN	P Richards	[Address above.]	Home: [redacted] Work: [redacted]
EQUIPMENT CURATOR	J King	[Address above.]	Home: [redacted]
SPECIAL EVENTS CO-ORD	A Smith	[redacted], Ipswich, IP4 5RZ.	Home: [redacted] Work: [redacted]

Send to : Frank Tobin, 16 Penton Hook Road, Staines, Middlesex TW18 2PF.
 (Closing date for applications: September 30). Please enclose an s.a.e.

I wish to register for the JAS 1990 Preston Montford Weekend Course, November 9-11

Name

Age (if under 18) Sex (M/F) Smoker/Non smoker

Address

Do you wish to share a room with a friend? If so, who?

I enclose: Deposit £15 / Full fee £47.50 * payable to the Junior Astronomical Society

* delete as necessary