

SOCIETY NEWS

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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. Provisionally the observatory will be open to the public from 8.00 to 10.00 pm, each evening. A provisionally observation programme will be decided nearer the date. As usual there will be a slide show and talks available for any cloudy evenings.

2 Committee Meeting

The next committee meeting will be held on saturday 15th september. This is an open meeting and any member is welcome to attend. The main item for discussion will be National Astronomy Week.

NIGHT SKY

All times GMT

SUN

Rises approximately 05.10 to 06.00

Sets approximately 19.00 to 17.50

THE MOON



5th



11th



19th



27th

MERCURY

Mercury is at inferior conjunction on the 8th. It reaches maximum western elongation on the 24th (18°). The last week in the month will be the best time of the year to see the planet in the morning sky. It will be rising about 2 hours before sun rise. Mag.-1

VENUS

Venus will remain visible low down in the early morning sky. At the beginning of the month it will be rising about 2 hours before the sun, this will decrease to 1 hour at the end of the month. Mag. -3.9

MARS

Mars will be rising at 20.00 in mid month. It is at present in Taurus at mag.-1.0



JUPITER Jupiter will be visible in the morning sky. It rises at about 02.00 at the beginning of the month and at about midnight towards the end. Mag. -1.9

SATURN Saturn will be setting before midnight by mid month. Mag. 0.4

URANUS Uranus will be setting by 22.30 in mid month. Mag. 5.6

NEPTUNE Neptune will be setting about half an hour after Uranus. Mag 7.7

As well as looking for meteors every one took time out to observe comet Levy.
Members present were:-

Roy. Gooding	Martin Cook	Judith Cook
Eric Sims	Alan Smith	Mike Barriskill
David Barnard	Elaine Ward	Peter Richards

R. Gooding

R. Gooding
PERSEID METEOR WATCH

THAT HUBBLE TROUBLE
by Roy Adams

A society field trip was arranged for Saturday 11th August to watch the Perseid Meteors. The arrangements were to meet before hand at the Levington ship at 10.00 pm before going on to Levington creek. Levington creek has been the site we have used for many years for meteor watches. Over the years this site has deteriorated through light pollution from Felixstowe docks, so this watch will probably be our last at this venue if an alternative site can be found locally. The sky conditions were not very good. Limiting magnitude varied between 2 and 3 with patchy cloud. Meteors seen were as follows:-

We have heard a lot recently about the errors in the primary mirror of the Hubble Space Telescope. But have we heard the real reasons for the main mirror's focussing properly only in ring zones?

The latest info. gained via the New Scientist magazine (18th August 1990), is that years ago, a coarse test indicated errors, but this result was overridden in favour of a much more sophisticated, computerised testing program. But the computer tests were wrong! It seemed that with all the resources of NASA, a simple, amateur Foucault test could have avoided all the trouble - though such was not even (so it is said) made, and probably would not have been accepted!

This is one of the reasons why professionalism can hang behind amateurism - by a long way or just by 1 mm - a miss is as good as a mile or a few billion light years! There are times I'm very happy to be just an amateur, as I can't say I'd like to have to answer for the Hubble mistakes with all that money and effort at stake - and future results! In my view, bleating about underfunding but not using simple tests doesn't add up.

I have another theory about the error of form and focus of the Hubble primary. This is that the effects of change of environment after figuring were not properly, if at all, allowed for.

It is not quite clear from the New Scientist article and diagram, whether the '1 mm askew' is in the axial alignment of the optics or in their distance apart (the spacing along the axis of the components). But glass, or any material to some extent, when Earth's normal atmospheric pressure of 15 pounds/square inch (appx 1.1 kg/cm²) is totally removed, surely will expand, even if not very much. Where optical equipment which is supposed to be of the very highest order is concerned, the implications could be immense. What is more, the shape of a primary mirror being what it is, the area back and front is much greater than the area of the 'side' of the mirror, and with a fairly deeply concave main surface, other distortions, which could well result in the turned-down edge and sunken middle which I believe is roughly the situation up there in space, can occur. I would also expect a slightly lengthened average focus due to this expansion, which may be more marked for a mirror with 'cellular' structure. Added to that, glass is a semi-fluid, albeit a quite rigid one, if I may speak in simple language.

I think it would be interesting to hear the views of other people on this, and to note what happened with other space telescope mirrors that have given good service. (I.R.A.S.? The U. V. Telescope?) There are also problems of differential heating and cooling with such precision optics. A typical example of this is in the 30-cm x 50-cm flat mirrors of the GOES weather satellite due for launch by NASA in 1992....

TIME	MAG.	COMMENTS
23.16	-2	Finished near Vega. Slight trail
23.18	?	
23.22	-1	Shower
23.40	1	Seen through cloud
23.48	1	
23.50	1	In Cygnus
23.53	2	Sporadic seen in the south
23.59	?	Below Cassiopeia
00.01	-1	Shower
00.08	?	Shower
00.08	-2	Shower. Trail seen
00.12	3	Shower.
00.24	-1	Shower. Through Hercules & Draco
00.32	1	Shower.
00.34	?	Sporadic

Pegasus seems very much favoured this year for cometary activity: First, Comet Austin graced this constellation, though in the eyes of the few rather than the many, I gather. Without wishing to belittle the historical small private passenger motor vehicle of the same name, Austin certainly was more of a damp squib than anything else, the only real good coming from it perhaps being a bit of extra familiarisation with the skies of the Winged Horse, as it turned out, ready for Comet Levy.

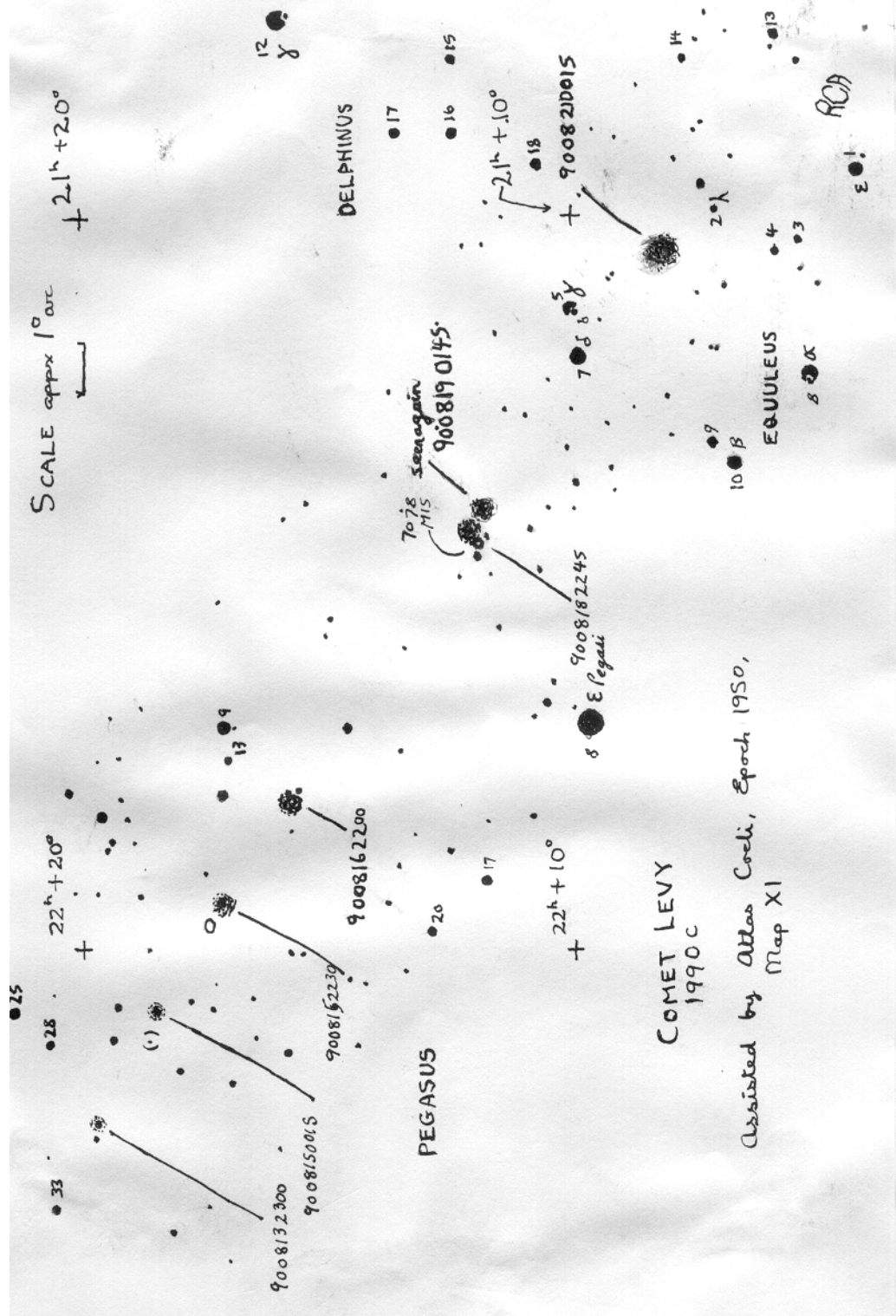
In all fairness to Comet Austin, in my opinion it was the haze around consistently at the beginning of May that did for it. I was lucky enough (or persevering enough) to observe it on three consecutive nights, and to guide a couple of other eager pairs of eyes with binoculars to see it. But that was really about all - I reckon the haze robbed us of at least three magnitudes even when away from nearby lights, so any real form was just swallowed-up. I have included a drawing of my observations, however, for what it is worth.

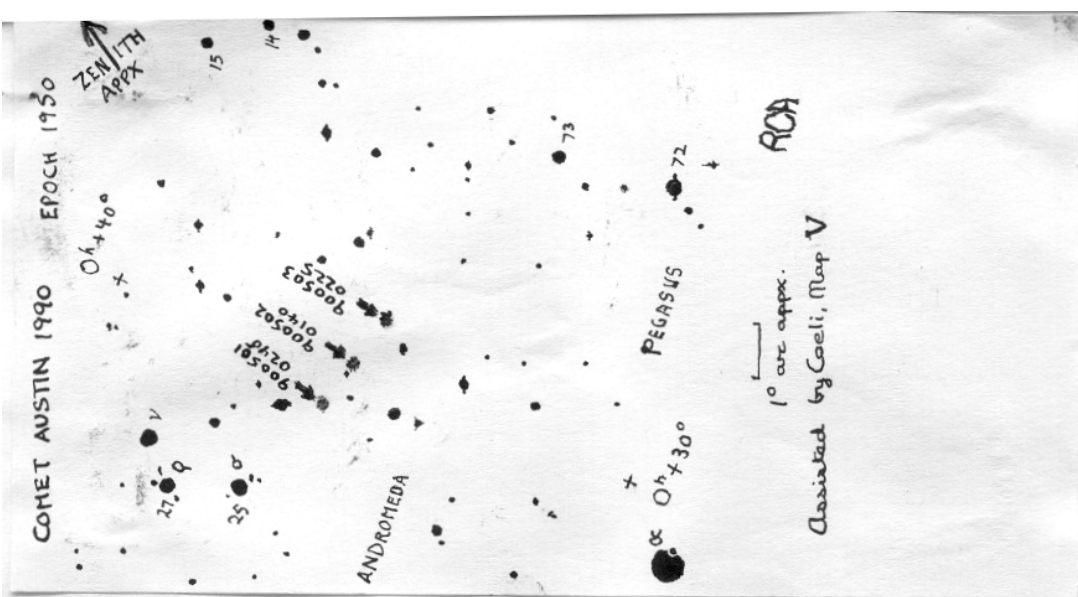
Thanks to Dave Payne's article and map concerning Comet Levy in the O.A.S.I. August journal, I was fairly primed for what was closely following Comet Austin, though at first I did wonder about the dates given on the map: Could that really be August 38th? And even if the dates shown were supposed to be Aug. 10, 20 and 30, the positions did not seem quite to tie-up with David's seeing the Comet as he said in his article, midway between alpha Andromedae and beta Pegasi. I figured the comet would be a few days ahead (or a few degrees ahead) of the positions given. This was what I actually confirmed.

Levy was (possibly still is) very similar as far as I could see, to Comet Austin, but much easier to find, and certainly at least two mags. brighter and from two to three times the apparent diameter. Haze, except for the time around UT midnight of Aug. 20/21, which was by usual standards, a brilliant night - for a little while, anyway, was still rather a problem. I sensed on the Aug. 20/21 observation that the head was displaced approximately to the SW. But I was only using 7 x 50mm diam binoculars (not the very best at that) so greater assertions may be out of place.

From the drawing, it can be seen that I managed to see Levy on six separate nights in mid-August, the first four consecutive. I have tried to see it since but up to the time of 'going to Press' have been unable to. It is now fast going south, as I write this possibly being below -10° so hope is dwindling. But this as far as the number of times I've seen it, has been my best comet so far. I would not like to say categorically that it was a fair naked-eye comet at best. To actually be able to find it with the naked eye is the best criterion of that, and I didn't manage to.

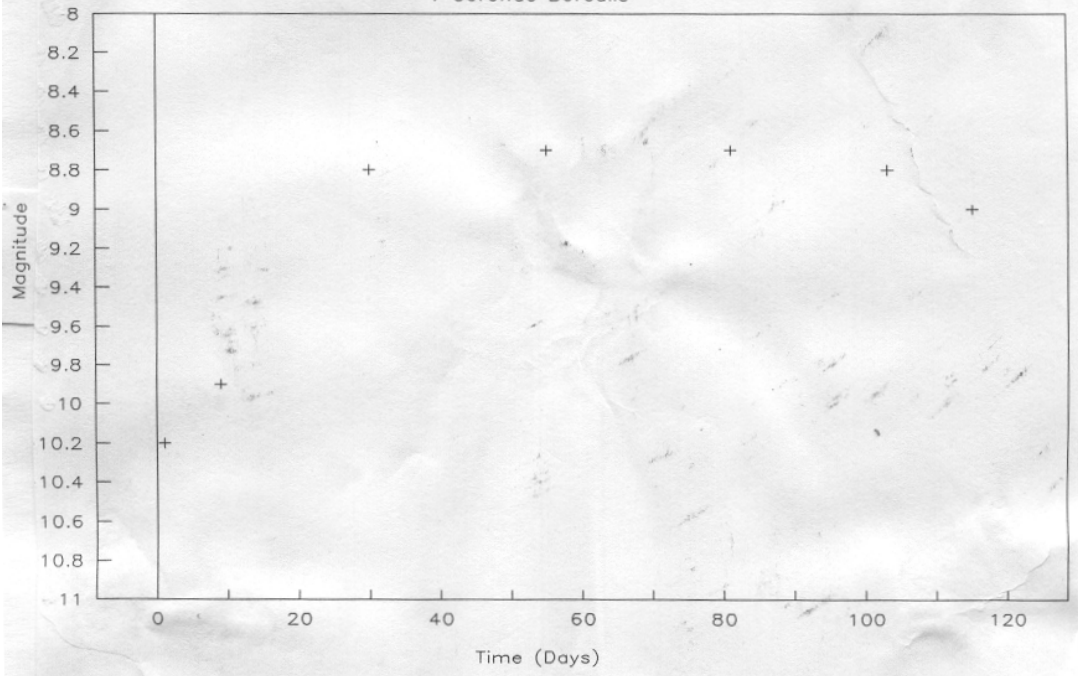
When looking for comets on the threshold of visibility due to haze very badly reducing contrast, or the actual low brightness of the comet, it helps to study a decent star map first at fair scale, and to use low power rather than high power binoculars. If the object is low in the sky, it can also help to use horizon landmarks (such as chimneys and TV aerials on roofs) to help mark the stars. This is the method I adopted out of my bathroom window, believe it or not whilst lying in a (dry!) bath, using the corner of the window to help guide me between gazes. Without quite a bit of star-hopping and then star-marking in this way, and without a mount in the awkward immediate observing location, I feel pretty sure I would never have found Comet Austin at all. But Levy was no problem. It was very well placed for observation, the Moon did not interfere, and it was quite easy to find. I hope others had a good time with it too.





Variable Star Observations

V Coronae Borealis



PROGRAMME FOR

DAY	DIRECTORS	SECTION	PHONE No.s
Mondays from 8.00pm			
GENERAL OBSERVATION SECTION			
3-10	Mr R Newman	[Redacted], Felixstowe, IP11 9DY.	Tel. Fel. [Redacted]
17-24	Mr J King	[Redacted], Felixstowe, IP11 9LQ.	Tel. Fel. [Redacted]
Tuesdays from 8.00pm			
GENERAL OBSERVATION SECTION			
4-11	Mr R Newman	[Address above.]	Tel. Fel. [Redacted]
18-25	Mr J King	[Address above.]	Tel. Fel. [Redacted]
Wednesdays from 8.00pm			
NEBULA AND FAINT OBJECTS SECTION			
5-12	Mr M Cook	[Redacted], Ipswich, IP4 5PZ.	Tel. Ips. [Redacted]
19-26	Mr D Payne	[Redacted], Wickham Market, IP13 0SD.	Tel. W.M. [Redacted]
Fridays from 8.00pm			
PLANETARY AND LUNAR SECTION			
7-14	Mr P Richards	[Redacted], Ipswich, IP4 1QB.	Tel. Ips. [Redacted]
21-28	Mr R A Lobbett	[Redacted], Felixstowe, IP11 8UJ.	Tel. Fel. [Redacted]
	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 : **COMMITTEE MEETING**

The next committee meeting will be Saturday 15th September at the observatory starting at 19.30. As usual this will be an open meeting and any member may attend if they wish.

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]