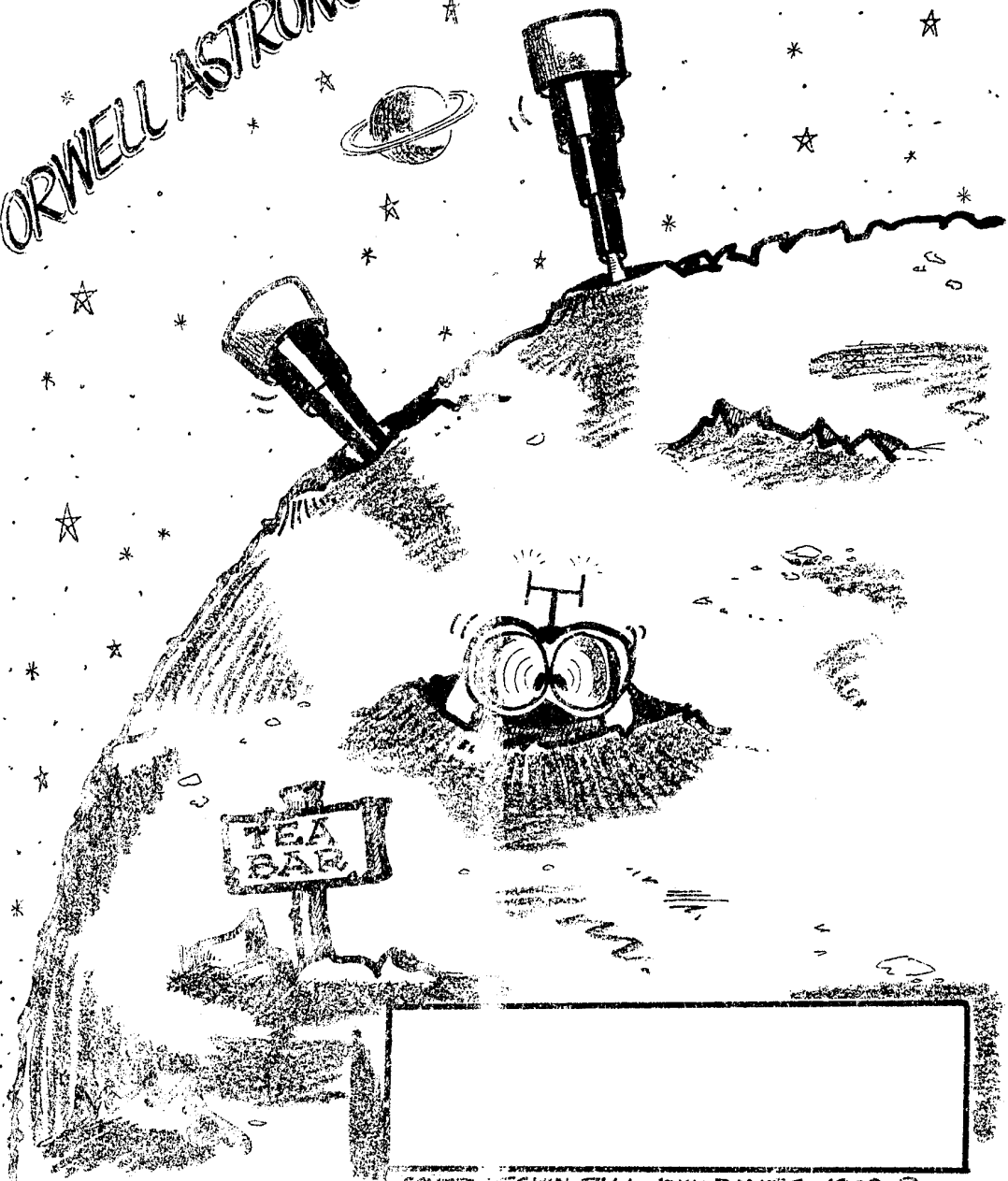


OCTOBER 1990

ORWELL ASTRONOMICAL SOCIETY IPSWICH



COVER DESIGN BY: JOHN DAVIES, 1989 ©

SOCIETY NEWS

NATIONAL ASTRONOMY WEEK 17th to 24th November

The society programme for National Week has now been finalized.

The observatory will be open on the following evenings:-

Saturday	17th	8.00	to	10.00	pm.
Sunday	18th	"	"	"	"
Monday	19th	"	"	"	"
Tuesday	20th	"	"	"	"
Wednesday	21st	"	"	"	"

A lecture meeting will be held at the Friends Meeting House on Friday 23rd November starting at 19.45 (7.45 pm)

Mr. Konrad Malin-Smith will be speaking on:-

Experiences of La Palmar.

As much help as possible from all members will be required to run the open evenings.

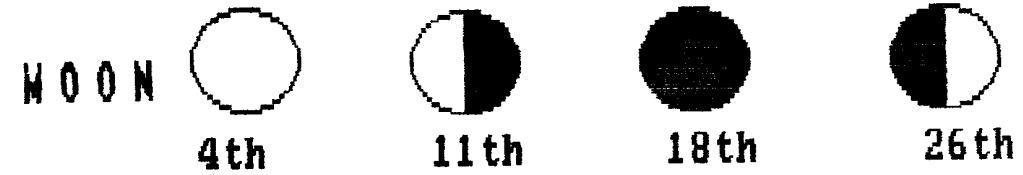
2 Committee Meeting

The next committee meeting will be held on Saturday 3rd November. 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 06.00 to 07.00
 Sets approximately 17.50 to 16.30



MERCURY Mercury is well placed in the morning sky during the first few days of the month. It then rapidly moves near to the sun and is at superior conjunction on 22nd.

VENUS	Venus is still a morning object, rising about 1 hour before the sun at the beginning of the month and only minutes at months end.
MARS	Mars rises at 20.00 at the start of the month and at 18.00 at the end of the month. Mag. -1.6
JUPITER	Jupiter will be rising at about midnight at the beginning of the month. It is in cancer and will be at Mag. -2.1
SATURN	Saturn will be setting at about 21.00 at the end of the month. Mag. 0.4
URANUS	Uranus will be setting by 20.00 at the end of the month. Mag.5.6
NEPTUNE	Neptune will be setting about half an hour after Uranus. Mag 7.7

R.Gooding

Aurora Early Warning Rota

The Aurora early warning rota system will again be in operation this winter. Participating members who wish to be alerted of any Auroral sightings are listed below. The system is as follows:-

If you observe the Aurora or receive notification of a display **RING THE NEXT NUMBER ON THE LIST**. If you get no reply, continue to ring successive numbers until you get an answer. The last person on the list should contact the first person at the top of the list and work down until an answer is received. In this way each person on the list only needs to make one successful contact to ensure all members available are notified.

When ringing please note the cut-off times for members in the right hand column. If the actual time is later than this then skip that member.

Name	Telephone	Latest Time
David Barnard	Ips.	2330
Mike Barriskill	Ips.	0100
Martin Cook	Ips.	any time
Roy Gooding	Ips.	2400
Mike Harlow	Fel.	any time
Gary Marriot	Ips.	2300
Dave Payne	W.Mk	2330
Peter Richards	Ips.	0100
Eric Sims	Ips.	2300
Alan Smith	Ips.	any time

Telephone dialing codes from Ipswich:-

Felixstowe = 93

Wickham Market= 92

(David Barnard)

3

Four stamps will be issued on October 16th to mark the 200th anniversary of Armagh Observatory and the centenary of the British Astronomical Association. Armagh observatory is noted for its important star catalogue and for recent pioneer studies of certain stars which show sudden, unpredictable flares or outbursts (Nova).

The designs of the four stamps trace the development of man's understanding and exploration of space:-

22p - The modern day exploration of space, illustrated by the Armagh observatory (centre), the Jodrell Bank radio telescope (left) and the La Palma telescope (right).

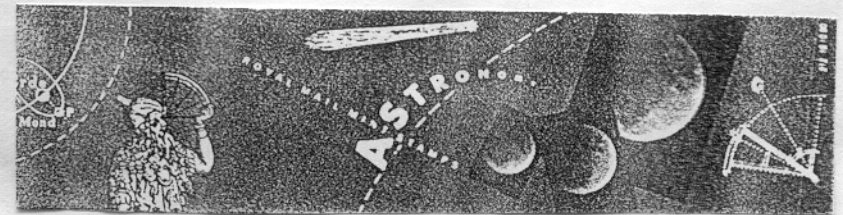
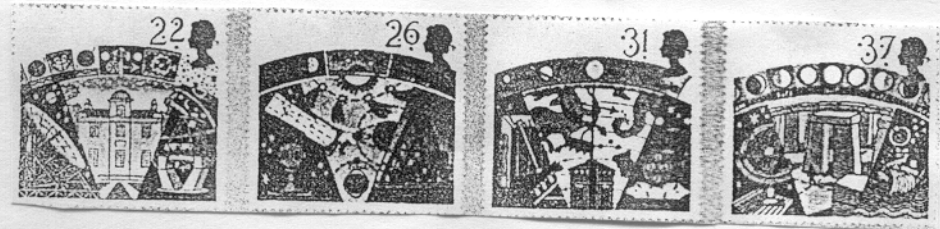
26p - Man's understanding increases, illustrated by the moon governing the tides on earth (centre) and early attempts to see into space by telescope (left and right).

31p - Man begins to understand the scientific principles governing space, illustrated by the Greenwich Old Observatory (centre) and early astronomical equipment (left and right).

37p - The beginning of Man's realisation of the existence of space, illustrated by Stonehenge (centre), the gyroscope (left) and navigation by the stars (right).

The set of four stamps will be available in a presentation pack price £1.45. This includes a text by Patrick Moore. Also available from approximately October 1st will be a set of four postcards featuring enlargements of the stamp designs. These cost 76p for the set of four.

David Barnard.



4

The Astro-Space Stamp Society

The Astro-Space Stamp Society was launched into orbit in November 1986 to cater for the Thematic stamp collector who specializes in Space Exploration, Manned Space Travel, Astronomy and Rockets. Now into the 1990's, the society is gathering momentum and it has already produced a checklist of "Space" stamps and a regular magazine for its members, appropriately named "Orbit". With a membership from Europe, Australia and the USSR it is now seeking enquiries from interested collectors around the world.

Further details and a membership enrolment form can be obtained from the Secretary, A.S.S.S., [REDACTED], Lower Cwntwrch, SWANSEA VALLEY SA9 2QE.

David Barnard.

Cambridge Star Party

Last Saturday, the 22nd of September Cambridge Astronomical Society organised a Star Party to celebrate the commissioning of their new half-meter Dobsonian telescope. The evening was warm and the event was due to start at 4pm. I arrived at the Cambridge Veterinary college at about four o'clock after driving up from Ipswich, which took about an hour. On offer at that time were guided tours around the telescopes of the Institute of Astronomy across the road from the college. This included the Northumberland 10 inch refractor, the 36 inch cassegrain and a peculiar 22 inch three mirror wide angle telescope designed by one of the institute members. This telescope was designed to give perfect distortion-free images 5 degrees in diameter on a 4 inch diameter film plate.

By the time I had looked around the Institute it was about 6pm so I walked back to the college for some well earned food. At the college were some of the Cambridge Astronomical Society's (C.A.S) members telescopes including five Dobsonians, two of about 10 inch, one of 15 inches, one of 17 inches and the Hysom 1/2 Meter, to be named later in the evening and a 6 inch refractor on a rather wobbly pillar mount. At about 6.30pm Dave Barnard and Elaine Ward arrived after spending some time trying to reach escape velocity on the Cambridge one-way system. After they arrived we took up the offer of a visit to the electron microscope facility at the veterinary college.

Later in the evening the Mayor of Cambridge came along and made a presentation of a cheque to the C.A.S from the city council for completion of their new telescope. To the great surprise of Jim Hysom the optical engineer for the new telescope, had the instrument named after him in recognition of his work. It was about 9.30pm by this time and the new telescope was moved over to a dark area at the back of the college and some good observing ensued. The views obtained were excellent although intermittent cloud did block some of the sky out. Views of Saturn and M13, the globular cluster in Hercules were gained.

After a few more hamburgers and some free beer we said goodbye to the members of the C.A.S and started our weary way home. Dave Barnard later told me that while on his way home both he and Elaine Ward saw a very bright fireball in the direction of Ipswich which they think may have resulted in fragments reaching the ground.

G.Marriott

Astro-camp 1990 The Aftermath.

The Astro-camp is over again for another year and its time to go back to work. Not for another year will I hear the excited shouts of astronomers (gazing sky-wards for the all but brief spark of a meteor) as well as the approaching groan of car suspensions as delicate but still very heavy optical instruments are carefully inched along the tracks to the camping site.

This year the camp ran from Sat. 11th to Sat 25th of August inclusive. These dates were chosen to coincide with the maximum intensity of the Perseid meteor stream on the night of the 11th, as well as the last quarter moon. The first of these occurrences, ie. the Perseid Maximum, brought much excitement. Several observers even stopped their more normal night time activities to watch the show. There were a few really bright meteors that night and lots of fainter ones. The average visual count was about 40 per hour, (ie. approx one every 2 minutes.). One meteor which I saw crossing the western sky was bright enough to leave a trail visible for nearly half a minute through the 50mm finder on to my telescope. It was very strange to see a meteor trail contort in the high altitude winds as it faded.

The weather was kind for most of the time with only 3 days of rain, and 4 cloudy nights. One problem with the camp location was, that being situated in a forest we had a lot of problems with dewing up of optics. This was due to the high night-time humidity and lack of wind. Therefore it was quite important to have anti-dew devices. Such as, low voltage hair dryers, heater pads, heated dew caps etc. and of course the 'shake your woolly hat around over the optics' approach, which I guarantee works 'eventually'!

We were once also lucky since there was a naked eye comet in the evening sky, this was Comet Levy. At about magnitude +3 and with a fan shaped tail extending about 1/2 a degree it was an easy object to find and thus was an obvious starting point for an observing run. During the camp I observed the comet regularly and obtained some good photographs with a driven mount borrowed from Norman Fisher. I should say at this point that the mount used was not what you would call a proper camera drive. It consisted of an old central heating clock adjusted as fast as it would go to get the correct drive rate and a small 5 by 30mm spotting scope tied on to it with elastic for polar alignment. As you can see from the photos in this article over short exposures of up to 10 minutes it gave acceptable results.

Apart from Comet Levy and the Perseid meteors there were many other objects to observe. Like Saturn low in the southern sky, Mars rising after midnight as well as all the summer deep sky objects. One recommendation I would make is that, when you are searching for objects near the zenith, make sure you are not over stretching yourself to peer up the finder scope. I did, and spent the next two days with a stiff neck!

Some high points of the camp, not including the Perseids and comet Levy were, the "Star-B-Que" on Saturday the 18th, in the evening with music supplied by the local group Southern Folk. Also a visit to Hammerwood Park house near East Grinstead and Solar observing in the early mornings through Norman Fisher's "Sun-Beam" telescope.

The first of these, the "Star-B-Que", was on Saturday the 18th in the evening, which was on one of the only 4 cloudy nights during the holiday, went quite well with only one or two mishaps. One of these was while we were listening to the folk group inside the marquee. A rather drunk person who will remain nameless (it wasn't me), decided it would be rather fun to let down the guy ropes which hold up the sides of the marquee. Luckily no damage was done and after being restrained from doing any further damage we managed to put the guys back up. All in all the though, the evening was a success.

The visit to Hammerwood Park house during the second week was very interesting. The house was built in 1792 by the architect Henry Latrobe. It was the first big contract for the French trained English architect. Latrobe went on later to design the Capitol Building and the White House in Washington where he gained fame for his innovative designs. Hammerwood house was built as a hunting lodge for a local landowner. The present owner bought the house six years ago when he was 21 with the money he had inherited from his grandfather. At that time it was in a state of total disrepair. There was no lead on the roofs and dry rot had weakened the floors to such an extent that the floors and ceilings of the second, third and fourth floors were resting on the ground floor ceiling which in turn was only held up because of the large amount of lead plumbing in it. Since that time the house has been refurbished throughout and brought back to the condition it was in when it was built. In the house are several collections owned by members of the family, which included a collection of all things photographic, a collection of antique clothes and a collection of antique glassware. We spent almost 4 hours at the house looking around the many rooms and enjoying the huge cream teas on offer in the light and airy atrium in the middle of the old servants quarters, which contains around the walls the only complete copy of the Elgin marbles in existence. If you are in East Sussex the house it well worth a visit.

On the solar observing side there some excellent views of the sun through Norman Fisher's Sun-Beam Scope. This was an F10 6inch Newtonian Telescope with highly polished but un-silvered mirrors and a sun-diagonal at the focus. This gives the advantage of colour free comfortable direct views of the sun with failsafe design. In that and damage you could cause to the scope would only reduce the amount of light to your eye. The resolution of this scope is amazing, you can not only see the penumbra around sunspots but also the dark and light bands of infalling and upwelling matter in them. Also it is possible with some luck to see the granulation and faculae without filtering.

Apart from the solar telescope there was very wide range of scopes at the camp this year. Such as, 5 Schmidt-Cassegrains of sizes between 8 and 14 inches and extras which went from digital setting circles to a completely automatic target acquisition system. As well as Dobsonians from 6 to 12 inches, including one 10 inch model which was made from plywood with a skeleton frame of 3/8 inch dowel rods and weighed only 5Kg which even so was very rigid. Also several refractors from 3 to 6 inch and numerous equatorial Newtonians from 4.5 to 14 inches aperture.

There was also the new telescope design from Norman Fisher. Called "Equuleus", it was a 4.5 inch F4.5 Newtonian designed to weigh less than 1Kg, cost less than £150 and be able to fold up and fit in your suitcase with your clothes, for easy observing on holiday anywhere. The optical quality was excellent and this scope I think gave the best views of the comet.

Details of next years Astro-Camp will be available around June next year but provisional dates have been chosen for the beginning of August. It will be well worth a visit even if you stay for only a weekend.

G.Marriott.

HOW DO YOU MAKE A STAR ?

Scientists around the world have been working to produce energy from nuclear fusion, as do stars, since the 1950's. At the Joint European Torus, at Abingdon, near Oxford, a great deal of progress has been made towards achieving this goal. A visit has been arranged to this facility for members of the Orwell Astronomical Society. The visit will take place on 11th November this year [No other suitable dates were available] and the party is limited to a maximum of 20 people. Unfortunately all the visitors must be over 16. If you are interested contact me [Pete Richards : address on back page] before 10th October.



PHOTOGRAPH OF COMET LEVY
Taken on 21st August on Konica 3200 film at 11.42ut.
5 min Exp. 135mm lens at F2.8

By J. Walsh.

Edinburgh Observatory today is a leader in Astronomical Research and has a long and interesting history, as I found out from my recent visit there.

The history of the Royal Observatory dates back to 1776 when the foundation stone was laid at Carlton Hill on the site of what is today, the City Observatory. This first Observatory was founded by Thomas Short an optician from Leith who acquired a twelve foot telescope and various instruments from his late brother and he began exhibiting them for a small fee. A building fund had been set up some thirty years earlier and Short obtained this and a ninety nine year lease for half an acre of land on Carlton Hill on the condition that he made his telescopes available to the University students for their Astronomical studies.

The original plan for the Observatory was made by James Craig. This was to be a splendid affair, with octagonal towers and built like a fortress but, with lack of funding and little interest from the town council, the Observatory was never completed, apart from a small tower which Short used as a residence, and a much smaller Observatory was built nearby. In 1788 Thomas Short died and the lease was passed to his grandson James Douglas who at once began viewing sessions, this in turn caused a family feud over as to who owned the equipment inside the Observatory - at one time even a full scale siege broke out leading to the arrest of several people - all this was too much for James Douglas and almost penniless he returned to sea. The Observatory was eventually abandoned in 1807 and used as a gunpowder store.

In 1811 The Astronomical Institution of Edinburgh (which has the distinction of being the first true Astronomical Society formed in the British Isles) acquired the then abandoned buildings on Carlton Hill with the aim of building a proper Observatory in

Edinburgh, this was to be split into three parts (1) A Scientific Observatory to improve Astronomy and Navigation. (2) A Popular Observatory for amusement and instruction. (3) A Library for members.

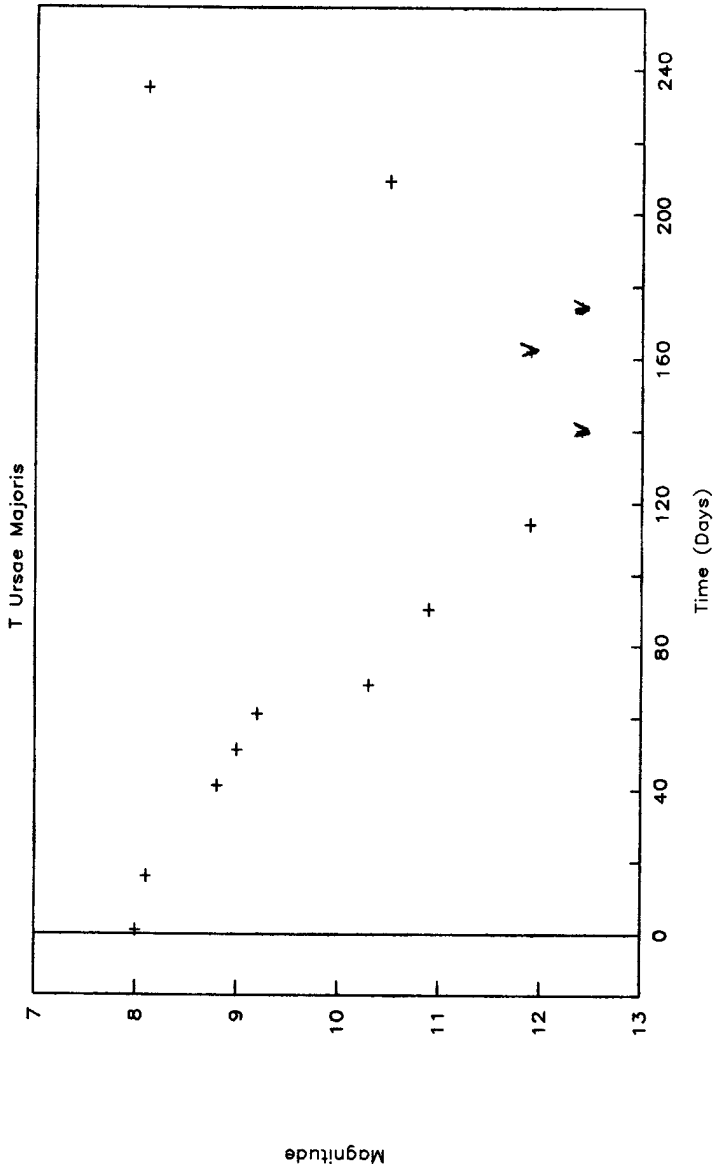
The new Observatory was built in 1818 to the plans of Architect William Playfair. When King George IV visited Edinburgh in 1822 he bestowed the title of "The Royal Observatory of King George IV." And after some trouble financing the expensive equipment needed for the Observatory's much grander role, this was settled by a Government Grant in the early 1830's.

With the title of Royal Observatory secured, Edinburgh was on the same par as Greenwich, so a post of Scottish Astronomer Royal was created. Thomas Henderson (1798 - 1844) was appointed the first Astronomer Royal in 1834 and worked at the Observatory making over 60,000 Star positions in the ten years before his death in 1844.

Henderson's successor was Charles Piazzi Smyth (1819 - 1900) it was shortly after his succession in 1846 that the Institution was wound up and the Observatory was placed under Treasury control, it was at this time that the Observatory was badly neglected. Smyth was hardly ever there, choosing to work away from the Observatory most of the time. The Instruments were outdated and many just didn't work. The Time Service was still maintained. A Time Ball, similar to the one at Greenwich was erected on top of the Nelson Monument overlooking the Firth of Forth in 1854, and in 1861 the famous Time Gun was added, fired by electrical signals from the Observatory to the Castle where the Gun was fired. Both of these still work today at 1300 hours.

But the Observatory was getting worse and worse and in 1876 a Royal Commission examined the Observatory but the recommendations for the Instruments needed were ignored, and in 1888 Charles Piazzi Smyth resigned his post. The Government threatened to close the Observatory and on hearing this, the then Earl of Crawford James Ludovic Lindsay handed over his entire collection of Instruments, Books and Telescopes to enable the foundation of a new Royal Observatory, which was built on Blackford Hill, and was completed in 1896. The old Carlton Hill Observatory was handed over to the Town Council, and is now the City Observatory.

Variable Star Observations



This light curve shows T Ursae Majoris from March to September this year. It shows a typical minimum for this long period variable.

Mike Nicholls

PROGRAMME FOR October

DAY	DIRECTORS	SECTION	PHONE No.s
Mondays from 8.00pm			
1-8	Mr R Newman	GENERAL OBSERVATION SECTION	
		[Redacted], Felixstowe, IP11 9DY.	Tel. Fel. [Redacted]
15-22	Mr J King	GENERAL OBSERVATION SECTION	
		[Redacted], Felixstowe, IP11 9LQ.	Tel. Fel. [Redacted]
29			
Tuesdays from 8.00pm			
2-9	Mr R Newman	GENERAL OBSERVATION SECTION	
		[Address above.]	Tel. Fel. [Redacted]
16-23	Mr J King	GENERAL OBSERVATION SECTION	
		[Address above.]	Tel. Fel. [Redacted]
30			
Wednesdays from 8.00pm			
3-10		NEBULA AND FAINT OBJECTS SECTION	
17-24	Mr M Cook	NEBULA AND FAINT OBJECTS SECTION	
		[Redacted], Ipswich, IP4 5PZ.	Tel. Ips. [Redacted]
31	Mr D Payne	NEBULA AND FAINT OBJECTS SECTION	
		[Redacted], Wickham Market, IP13 0SD.	Tel. W.M. [Redacted]
Fridays from 8.00pm			
5-12	Mr P Richards	PLANETARY AND LUNAR SECTION	
		[Redacted], Ipswich, IP4 1QB.	Tel. Ips. [Redacted]
19-26	Mr R A Lobbett	PLANETARY AND LUNAR SECTION	
		[Redacted], Felixstowe, IP11 8UJ.	Tel. Fel. [Redacted]
	Mr G Marriott	PLANETARY AND LUNAR SECTION	
		[Redacted], Ipswich, IP4 4JB.	Tel. Ips. [Redacted]
		[Assistant Director]	

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 :

Meteor Count

There will be a meteor count to observe the Orionid shower on Saturday October 20th, at Levington Creek. Meet at the Ship Inn, Levington at 9pm.

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]
JOURNAL CO-ORD	E Sims	[Redacted], Ipswich, IP1 4HA.	Work: [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]