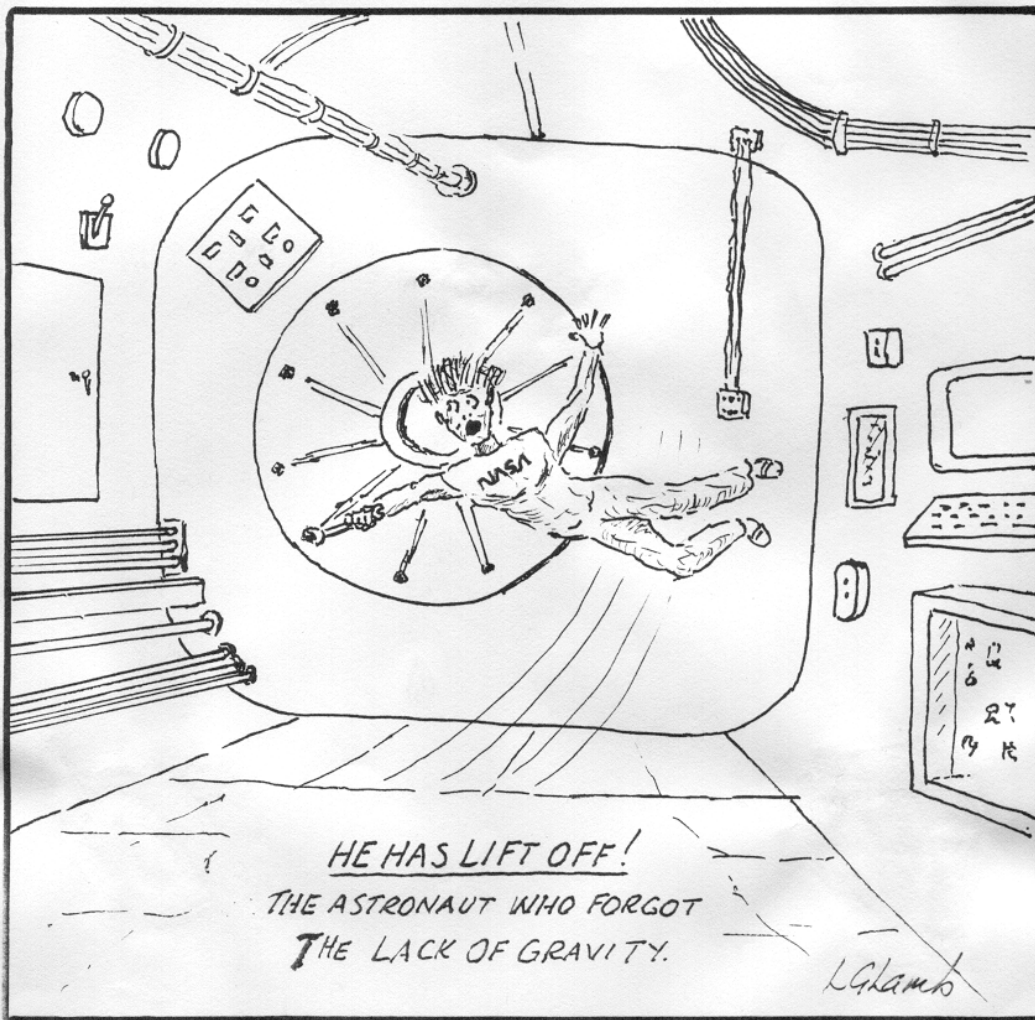


ORWELL ASTRONOMICAL SOCIETY IPSWICH

Charity No 271313

JUNE 1998



Society News

1 Next Committee Meeting

The next committee meeting will be held on Saturday 4th July from 19:30 in the club room. As usual this is an open meeting and any one who is interested is invitee to attend.

2 Events for 1998

Summer Excursion Newton's House	18 th July
BAA Exhibition Meeting	27 th June
Astro Camp	From 16 th August
Summer Barbecue	Provisionally 5 th September
Horncastle Weekend	From 11 th September
Lecture meeting: Nial Tavar Intergalactic Stars	2 nd October Friends Meeting House 20:00 start
FAS Cambridge Convention	3 rd October
Thetford Astro Camp :- Ashdown AS	From 3 rd October
Open Weekend	16 th , 17 th 18 th October
Lecture Meeting: Martin Mobberley	3 rd December (Thursday) Friends Meeting House 20:00 start
Christmas Meal	9 th December

3 Committee Meeting Summary

The last committee meeting was held on Saturday 9th May. Items discussed included.

- a) The 1998 committee is still short of one member.
- b) More news on society sweat shirts should be available after the next committee meeting
- c) Present membership is at 64 with 3 honorary.
- d) The summer excursion will be to Newton's house, if booking is confirmed. The date selected is Saturday 18th July.
- e) The 1999 total Solar eclipse was discussed. Several options are available.
 - 1 A society camping trip to Cornwall
 - 2 Explorer Tours will have a chartered train from Paddington station.
 - 3 The BAA are organising at trip.
- f) A list of observatory key holders and members who are trained in operating the observatory will be displayed on the notice board in the club room.
- g) A check list in closing the observatory will be on displayed in the club room and the computer / map room.
- h) An updated booklet on operating the observatory has been produced. This has only a few minor changes., and will not be distributed to members who presently hold the last edition.
- i) The longest discussion was held on the request to hold a number of astronomy work shops for the benefit of new members. Further planing and thinking are required before any programme can be arranged.

Night Sky

All times GMT

Sun

The sun will be rising approximately at 03:50
The sun will be setting approximately at 20.25

Moon

1 st Quarter	Full Moon	3 rd Quarter	New Moon
2 nd	10 th	17 th	24 th

Mercury

Mercury is at superior conjunction on the 10th. By the end of the month it will be setting about an hour and a half after the sun.

Venus

Venus will be rising about 2 hours before the sun this month. It will be visible low down the morning twilight sky. Magnitude will be at -3.9.

Mars

Mars will be rising less than an hour before the sun this month and will not be visible.

Jupiter

Jupiter will be rising at about midnight at the end of the month. Magnitude -2.4

Saturn

Saturn will be rising at about 01:00 by the end of the month. Magnitude 0.5

Uranus

Uranus will be rising at about 22:00 by the end of the month. Magnitude 5.7

Neptune

Neptune will be rising about half an hour before Uranus. Magnitude 7.8

Meteor Showers

Name	Limits	Max	ZHR
Ophiuchids	May 19 th to July	June 9 th to June 19 th	5

Meteor source is the BAA Handbook

Meteor Diary - June

No major showers this month, just a minor one with two peaks (the first on the 10th and the second on the 20th). The radiant of this shower is low in the sky from our latitudes and with very short nights and a full moon on the 10th watching this shower could be challenging to say the least. There are the June Lyrids as well but this shower has a very low rate and peaking at a time when the nights are short (around 16th) the odds are stacked against this shower.

Peak day	Shower name	Peak rate (ZHR)	Effect of Moon
10 & 20/6/98	Ophiucids	5	

THE RANSOMES CONNECTION

By Ken Goward

An interesting conversation in our clubroom with James Appleton and Peter Richards, on one of those *inevitably** clouded out Wednesday evenings, recently, afforded a unique opportunity for me to combine my interest in Astronomy with, for want of a better term, my 'daytime hobby' of playing around with Steam Traction Engines. The link? - none other than Ransomes of Ipswich (*In their day, one of the main developers and manufacturers of Traction Engines*) and the not unreasonable conjecture that they may have cast the mount for the Orwell Park 10" Refractor..?

My embryonic interest in Ransomes 'non steam' products was further stimulated by a thoroughly enjoyable trip to the Old Royal Greenwich Observatory with Ted Sampson just a week or two later. There, right before our eyes, was a Ransomes makers plate on the tube of the Airy Transit Instrument.. So began a quest for knowledge of devices designed to push the then 'envelope' of Astronomical research, produced by a local company whose world wide reputation was established by its agricultural products.

Before going any deeper and to fill in a little background, perhaps the reader might appreciate a morsel or two on the 'key players' in all this. For the sake of brevity I shall try and squeeze the proverbial quart into a pint pot.

Ransomes of Ipswich

In 1789 one Robert Ransome established a ploughshare casting business in a disused malting at St Margarets Ditches, Ipswich, with an investment of £200 and with just one employee. His fortune was assured by a technological breakthrough in 1803 when, as a result of an accident in his foundry, one of the moulds broke and he noticed that where molten metal came into contact with cold metal its rapid cooling gave the material an extra hardness - *Chilled Cast Iron* - which led him on to produce 'self sharpening' ploughs, a revolution in agriculture. Rapid expansion of the company followed and, in the wake of the great agricultural depression of the early 19th century, diversification eased Ransomes into bridgebuilding, millwrighting, lawnmowers, railway fitments and even the installation of the first domestic gas supplies to Ipswich. By 1849 operations were transferred to a shipyard on the Orwell river and it was renamed the Orwell Works (*how original*). Just a few years before moving into Orwell Works where over 1,000 employees were by, now, on the company books (*The remains of the works are still visible between the quayside and Duke Street*) they began to experiment in steam engine production and had produced their first self

*You might agree there is potential for research into a weird and vexing Meteorological phenomena.. *Why is it that sunny Wednesday afternoons around this corner of East Anglia seem to vanish into totally overcast nights, accompanied by brilliant sunshine to greet one when awakening the following morning??*

moving geared Traction Engine by the 1860's, some years ahead of their regional rivals, Garretts of Leiston, Burrells of Thetford and Davey Paxman of Colchester. Over ensuing years the company grew and became the principal employer for Ipswich. An interesting aside is that the company had no less than ten variations to its trading name during its 211 year existence as various partners bought into or out of the family* firm. In 1966 a move to a 250 acre site at Nacton (*now Ransomes Europark*) which had sometime earlier been purchased from the Pretzman family was, perhaps, a precursor to commercial decline and by the turn of this year the company was finally swallowed by an American conglomerate. One might easily be forgiven for speculating that what remains of Ipswich's once proud internationally renowned engineering company won't last too much longer..

* *The family all followed the Quaker tradition.*

The Royal Greenwich Observatory Now the 'Old Royal Greenwich Observatory, part of the National Maritime Museum and the Herstmonceux Science Centre, East Sussex.

Presumably because GPS was still a little way off and maritime losses were becoming a tad expensive, Charles II founded the Observatory in 1675 to research and overcome the problem of determining longitude at sea. According to the Royal Warrant 1675, June 22 "*we have resolved to build a small observatory within our park at Greenwich upon the highest ground*". John Flamsteed was appointed as the King's 'Astronomical Observer' (*now Astronomer Royal*) to accurately catalogue the heavens from the observatory for the aid of navigation. Designed by Christopher Wren* and built on a budget of £500** with recycled materials purloined from the Tower of London and Tilbury Fort, the observatory originally consisted of the famous octagonal star room plus basic accommodation for the observer. It was not until almost a century had passed that the longitude problem was finally resolved, in part by stellar cataloguing but mainly with the superb Chronometers produced by one John Harrison (*A fascinating story in its own right*). As a direct result of this quest for longitude, Greenwich eventually marked the prime meridian of the world but we'll return to this matter later. Over the ensuing years and under successive Astronomers Royal the observatory expanded and branched ever more into cosmological research to become a world leader over the 323 years of its existence. As a result of urban sprawl with its associated light pollution and the coming of the electrified railway, which played havoc with the RGO's terrestrial magnetic fields readings, at the end of World War II the decision was made to move the observatory down to Herstmonceux Castle in East Sussex. From 1958 until 1990 Herstmonceux was the home of the RGO until it moved again to Cambridge. The PPARC*** and its quest for 'value for money' along with the ever squabbling, short sighted politicians were the final straws to break the camels back and the RGO finally notified all its staff of redundancy in April of this year.

* *Wren, although immortalised for his Architectural feats, was actually a Professor of Astronomy.*

** *That £500 was raised by selling the French a quantity of spoiled (naff) gunpowder - I offer this as yet another reason, quite apart from the full time results at Agincourt, Trafalgar and Waterloo, for the obvious stitchup in World Cup ticket allocations..!*

*** *The Particle Physics and Astronomy Research Council.*



The north facade of the Observatory in 1676, from an engraving by Francis Place.
With permission from the National Maritime Museum

George Biddall Airy 1801 - 1892

A local man, hailing from Playford, said by many to be the greatest Astronomer Royal. A mathematician who, by the age of 27, had held both the prestigious Lucasian and the Plumian Professorships and was a director of the Cambridge Observatory. Over 500 papers and 12 books were published in his name. He also held the Presidency of the Royal Astronomical Society, had a civil list pension, (*in his wife's name*) declined a Knighthood and, in 1835, was appointed as the seventh Astronomer Royal. His reputation was that of a man methodical beyond belief with an extraordinary flair for effective administration, setting a standard of efficiency which became a bench mark of the RGO - '*the Airy tradition*' - as it became known. A born leader who inspired his staff to ever greater endeavour, he was loathe to disparage any of the existing observatory instruments but gradually replaced them with new equipment, whilst never demanding more resource than actually needed for any particular research task. An approach which invariably let him get his way and his absolute confidence in the abilities of contemporary engineers, opticians and instrument makers ensured that he got exactly what he needed in terms of specification. His dedication to the position of Astronomer Royal was perfectly summed up when

he said, "I am not a mere Superintendent of current observations, but a Trustee for the honour of Greenwich Observatory generally and for its general utility in the world". His achievements whilst at Greenwich are too legion for this narrative but, not least amongst many milestones, he was instrumental in the standardisation of time throughout these isles via the railway telegraph system. Airy retired from the post in 1881, finally accepting the Knighthood which had been on offer for many years. He kept his links with the observatory via his election to the board of visitors, upon which he served until his death in 1892.

To be continued.....

SUMMER EXCURSION TO ISAAC NEWTON'S BIRTH PLACE

This year's summer excursion will be to Woolsthorpe Manor, which is the birthplace of Newton and is where he formulated some of his major work during the plague years of 1665 and 1666. As we are a party we will be given a guided tour. Points of interest there include an early copy of Newton's Principia Mathematica and a descendent of the famous apple tree in the orchard. The entrance fee to the manor (which belongs to the National Trust) is £2.50 for adults or £1.70 for children. We intend to book a coach for this event and early confirmation (by June 15th) is required if you want to be sure of a space. The cost for the coach transport is expected to be £12 to £14 per person. We expect to leave Ipswich at around 9.30 am from Ipswich. Saturday 18th July

Please contact Pete Richards or Joe Walsh (contact details on the back page) or fill in and cut out the following and drop it in the club room at the observatory. Detailed arrangements will be posted with your July journal.

Please reserve me(name)
.....(number of) places on the summer excursion. I can make 18th July

OCCULTATIONS DURING JUNE 1998

No occultation events occur under favourable circumstances during the month.

PROGRAMME FOR JUNE

<i>Mondays from 7.30pm</i> Mr N Gage	GENERAL OBSERVATION SECTION
<i>Tuesdays from 7.30pm</i> Mr P Richards	OBSERVATORY VISITS FROM OUTSIDE GROUPS
<i>Wednesdays from 8.00pm</i> Mr M Cook	NEBULA & FAINT OBJECTS SECTION Mr D Payne
<i>Thursdays from 7.30pm</i> Mr P Richards	OBSERVATORY VISITS FROM OUTSIDE GROUPS
<i>Fridays from 7.30pm</i> 1st - 15th - 29th Mr J Hood	DOUBLE STARS

All members are welcome on any night, but on nights other than Wednesday please check with the director of the night that the observatory will be open.

Lectures and other events:

Committee Meeting

The next committee meeting is to be held on Saturday July 4th in the club room at the observatory at 7.30pm. All members are welcome to attend.

e-mail enquires to oasieng@btbcs.bt.co.uk

WWW url <http://www.ast.cam.ac.uk:80/~ipswich/>

1998 COMMITTEE

	Home Phone	Work Phone
CHAIRMAN	D Payne	
SECRETARY	R Gooding	
TREASURER	M Harlow	
MAINTENANCE CO-ORD	M Cook	
JOURNAL CO-ORDINATOR	E Sims	
SOCIETY ACTIVITIES & DARK SKIES	P Richards	
EQUIPMENT CURATOR	J Walsh	
LIBRARIAN & COMP SOFTWARE	J Appleton	
JOURNAL ARTICLES TO	E Sims	Ipswich Suffolk IP1 4HA
CORRESPONDENCE ADDRESS	R Gooding	OASI Secretary Ipswich Suffolk IP1 6AE
MEMBERSHIP	M. Cook	Ipswich IP4 5PZ