

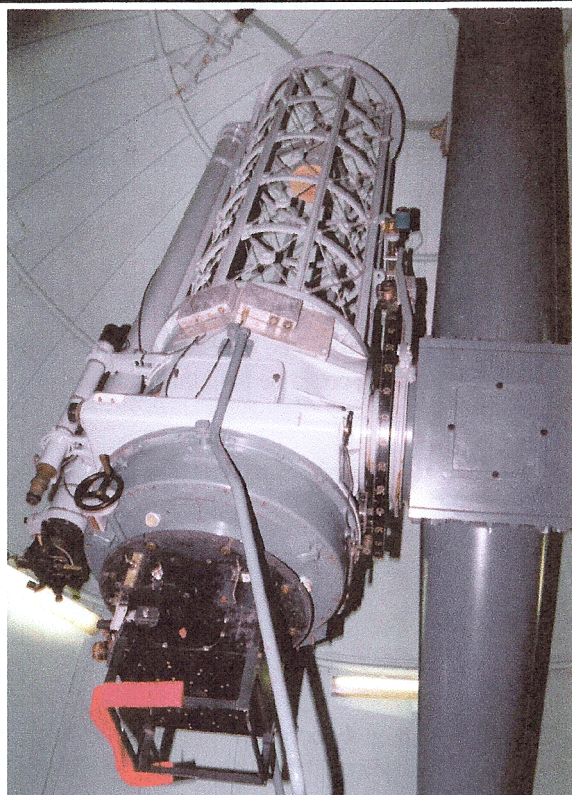


ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

Registered Charity No 271313
www.oasi.org.uk

NEWSLETTER 2006 MARCH

No 406



THE YAPP 36" F5 CASSEGRAIN REFLECTOR AT HERSTMONCEUX

Built by Grubb Parsons at Newcastle in 1932 and funded by a £15,000 donation from wealthy Industrialist W J Yapp. This instrument was operational at the Royal Observatory, Greenwich between 1934 and 1955, used for measurement of the colour temperature of stars, photoelectric photometry and spectroscopy. The instrument was taken out of use in 1948 and by 1955 the mirror had been re-silvered and the telescope removed to the new RGO Equatorial Telescope Group at Herstmonceux.

OASI will be running a coach trip to the Herstmonceux Science Centre, East Sussex, to see this and many other fascinating exhibits on Saturday 13th May. See inside for booking details...

Cover photos by Ken Goward

SOCIETY NEWS FROM THE SECRETARY

Roy Gooding

1 Next Committee Meeting Saturday 25th March

The next Committee meeting will be held on Saturday 25th March, at the Methodist Church Hall, from 20:00. This is an open meeting and any one who is interested is invited to attend.

2 Subscription Renewal for 2006

If you not already paid for the 2006 session, please return the renewal form enclosed with this months Newsletter, to Martin Cook, together with monies. March's Newsletter will be the last one you received if you have not yet paid.

3 Events for 2006

Meeting	Venue	Date
Astronomy Workshop Sights and Sounds of the Aurora Paul Whiting	Venue: School science class room	Wednesday 22 nd March 20:00
Astronomy Workshop Origin of the Solar System Paddy O'Sullivan	Venue: School science class room	Wednesday 12 th April
Society Excursion	Herstmonceux See Ken Goward's article	Saturday 13 th May
Summer Barbecue	No venue yet Any volunteers ?	July ?
BAA Exhibition Meeting		Saturday 24 th June
Open Weekend		Provisional date Saturday and Sunday 30 th September, 1 st October
New series of Astronomy Workshop meetings	Not yet in the planning stage.	
Christmas Meal	Levington Ship	Wednesday 13 th December

This event list will be updated through out next year

4 Lecture Meeting Venue

Our town lecture venue is now at the Methodist Church, in Blackhorse Lane. The church has a car park, bigger enough to take about 30 cars in Black Horse Lane Alternatively there is a Park & Display car park at the top of Black Horse Lane, next too the Town Council Offices. This is about 100 yards form the church.

Black Horse Lane has only one entrance, which is from Elm Street. This is just past the Police Station, if you are arriving from Civic Drive. The church car park is on the right, just past the Black Horse pub.

Meeting starts at 20:00, doors open at 19:30

5 New Session of Night Sky Section Meetings

If there is sufficient interest again I will restart meetings of the Night Sky Section this autumn. These will follow the same format as last year. The venue will again be on Nacton shores. No formal dates will be set, as meetings will take place on an ad hoc basis on Wednesdays. All you have to do is to ask me, and we can go down to Nacton shores for an observing session.



I would recommend bringing along a pair of binoculars, a torch and suitable footwear for walking down a potentially muddy lane.

For those who are new to the society, here is a little background for the reason I implemented these meetings last year.

New members have often mentioned that they are interested in Astronomy, but being beginners, they have only limited knowledge. One of their reasons to join us was to find like-minded people, with a greater knowledge than they have. Finding their way around the night sky held a high priority.

At our public Open Weekends I usually take visitors outside to show them the night sky, and identifying the principle constellations. All that is required for this is the naked eye and binoculars.

If any one is interested in doing this, please contact me (Roy Gooding)

6 Access into the School Grounds an Observatory Tower

The gate code is [redacted]. If the Black door entrance at the base of the observatory tower is locked, you will have to phone someone in the observatory to let you in. My mobile number is [redacted]. (Roy Gooding)

7 Society Email Distribution list

Society information is often distributed at an earlier date than can be achieved by the monthly Newsletter. If you would like to be received society emails, please forward your name and email address to [redacted]

8 Welcome to New Members

Judy Harper has recently joined.

9 2006 Excursion

The proposed society excursion this year will be to Herstmonceux , if there is sufficient interest . The date will be on Saturday 13th May. If you are interested please contact me, I will only book a coach if there is sufficient interest. The minimum number to make this trip feasible will be 30. I will be asking for a deposit of £5. Apart from the hire of the coach there will also be an entrance fee for Herstmonceux. Entrance payment will be left to individual members upon our arrival.

Herstmonceux web site: <http://www.the-observatory.org/>

10 Society's 40th Anniversary Year 2007 Some random thoughts open for discussion.

2007 will be the 40th anniversary year for the Orwell Astronomical Society. A number of events will be held throughout the year to celebrate this. At present, any plans are at a very preliminary stage

- All events could be prefixed with "40th Anniversary"
- A society meal could be held during the year.
- A formal Astronomical Convention could be held.
- A more informal exhibition meeting could be held that is aimed more for the general public.

If you have any ideas that can be considered please contact me.

Night Sky (March)

All times GMT

Sun

The sun will be rising approximately between 06:50 to 05:40
The sun will be setting approximately between 17:30 to 18:30

Moon

1 st Quarter	Full Moon	3 rd Quarter	New Moon
6 th	15 th	22 nd	29 th

Mercury Mercury will be inferior conjunction on the 12th. It will not be observable this month.

Venus Venus is a prominent object, low down, in the pre-sunrise morning sky. Magnitude -4.3

Mars Mars will be setting at about 01:00 towards the end of the month. It is presently in Taurus, at magnitude 1.0

Jupiter Jupiter will be rising at about 21:00 at the end of the month. Jupiter is in Libra shining at magnitude -2.4

Saturn Saturn will be visible all night, setting at about 04:00 at the end of the month. Saturn is in Cancer at magnitude -0.1

Uranus Uranus is at conjunction on the 1st. It will not be observable this month.

Neptune Neptune will be rising at about 05:00 in mid month. It will be difficult to observe as it will be in bright twilight sky.

Meteor Showers

There are no prominent meteor showers visible this month

Total Eclipse of the sun on March 29th

A Partial Eclipse of the sun will be seen on 29th March, 17% of the sun will be covered between 10:00 and 11:00

Eclipse of the Moon 14-15th March

There is a penumbra eclipse of the moon on 14th to 15th March
Eclipse starts at 21:21 and ends at 02:13

The Autumn Equinox Sky Camp: Kelling Heath Norfolk

The Autumn Equinox Sky Camp has grown to be the UK's biggest star party: and it's *relatively* local for OASI members. This year it runs from Monday 18th September to Thursday 28th September. Talks will be held on Saturday 23rd & Sunday 24th September and Trade Stands visit on Saturday 23rd September. According to the organisers - Loughton Astronomy Society in association with The Society for Popular Astronomy - "many astronomers have benefited by staying longer because with our weather it increases the chances of good observing".

For more information see www.starparty.org or http://uk.geocities.com/las_astro@btinternet.com/sky_camp.html
email [redacted]
Or call Andrew Robertson on [redacted]

There is also the **Spring Equinox Star Party Friday 24 March - Sunday 26 March 2006**. Email: [redacted]

OCCULTATIONS DURING MARCH

The table lists stellar occultations which occur during the month under favourable circumstances. The data relates to Orwell Park Observatory, but will be similar at nearby locations.

Date	Time (UT)	D /R	Lunar Phase	Sun Alt (d)	Star Alt (d)	Mag	Star
01 Mar	18:04:14	D	0.04+	-5	15	6.2	ZC 35
02 Mar	19:26:47	D	0.11+	-18	16	7.8	Hip 5732
03 Mar	20:13:42	D	0.19+	-24	22	8.5	Hip 9912
04 Mar	21:25:33	D	0.29+	-34	23	7.7	ZC 452
04 Mar	21:59:38	D	0.29+	-37	18	8.5	Hip 14481
05 Mar	19:18:38	D	0.39+	-16	52	6.2	ZC 587
05 Mar	20:34:53	D	0.39+	-27	42	8.3	1817-0439-1
06 Mar	19:41:13	D	0.49+	-19	58	7.3	Hip 22903
06 Mar	21:57:56	D	0.50+	-36	39	6.9	ZC 746
07 Mar	18:57:10	D	0.59+	-12	66	8.1	Hip 27676
07 Mar	19:01:39	D	0.60+	-13	66	8.4	1875-2587-1
07 Mar	19:45:19	D	0.60+	-19	64	8.4	1875-1721-1
07 Mar	23:21:43	D	0.61+	-42	36	6.7	Hip 28416
08 Mar	23:35:44	D	0.70+	-42	41	7.2	ZC 1056
09 Mar	01:43:35	D	0.71+	-38	22	7.2	ZC 1067
09 Mar	19:56:42	D	0.78+	-20	63	5.3	76 Gem
09 Mar	20:33:30	D	0.78+	-25	64	7.3	Hip 37848
31 Mar	20:31:35	D	0.08+	-19	10	8.1	ZC 395

James Appleton

THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX.

By Kenneth J. Goward FRAS

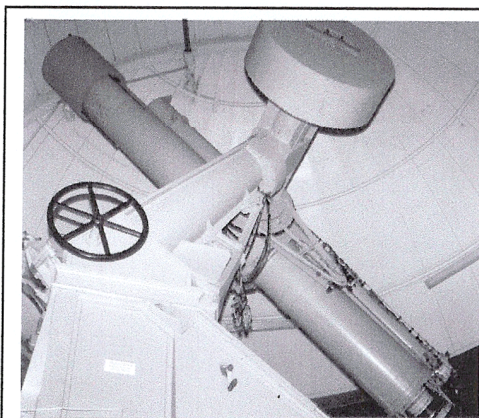
Founded in 1675 in the Reign of Charles II, the Royal Observatory, Greenwich was for slightly more than 300 years, arguably, the principal Astronomical establishment within the British Isles. When built on royal estates and although isolated, Greenwich was within a reasonable boat trip or horse ride of the metropolis. By the mid 19th century the area was swallowed up within London's urban sprawl and it was becoming apparent, even then, that the existing Observatory site was less than ideal – not only the problems of mists from the Thames but smoke from countless domestic fireplaces and burgeoning industrial conurbation. Airborne pollutants were corroding the optical surfaces of the Greenwich telescopes. Moreover, the nearby railway was electrified shortly after the turn of the 19th/20th century and the Magnetic instrumentation was badly affected.

The Magnetic department was removed to a new site in Surrey and by the 1930s the search began for a new site for the remainder of the Observatory – the main criteria being that any new location must be close to the Greenwich Meridian and to the south of London. However, with the onset of WWII in 1939 the idea was shelved for the duration and, although the Observatory remained nominally operational, much of the equipment was stored to avoid bomb damage. Indeed, the so-called Onion Dome of the 28" Refractor was badly damaged during the blitz. That dome had in 1893 replaced Airy's 1859 built drum dome for the former Great Equatorial 13" Refractor, but the new and much larger instrument was fitted on the original Ipswich manufactured mounting – all of which remains in use at Greenwich to this day.

Following the cessation of hostilities the search for a new location began again and by 1947 a picturesque 370 acre site on rising ground four miles inland above the Pevensey levels in Sussex was purchased. The site, close to the village of Herstmonceux, included a 500 year-old brick-built castle, which was to become the administrative home for the Royal Observatory. Elsewhere around the grounds separate facilities were built for the Nautical Almanac Office (NAO), workshops for Chronometer and electronics work, a Solar department, Meridian Instruments, Meteorological Observation and timekeeping. A brand new development to the east of the castle was to house what would become known as the Equatorial group of telescopes (see photograph on back page) – today called the Herstmonceux Science Centre, to which we hope to organise a coach trip on Saturday 13th May (see elsewhere in this newsletter for booking details).

Given the unspoilt nature of the surrounding countryside, aesthetics were a primary concern when the Equatorial group was built and the buildings and domes had to blend in to the scenery. Walls were covered in traditional Sussex knapped flint and the domes were copper clad and coated in substances to accelerate the verdigris process – as our dome at Orwell Park looks today. Building work commenced at the beginning of the 1950s, but the aforementioned constraints and other engineering problems delayed the commencement of observational work there until 1957.

The six domes housed some of the finest telescopes in the British Isles, including the Yapp 36" Cassegrain Reflector (see cover), the 38" Congo Schmidt Cassegrain, a 30" Reflector and the Thompson 26" Refractor – tongue in cheek described by observatory staff as the biggest telephoto lens in Europe. This latter instrument is of particular interest to OASI members as its guide scope utilises the Object Glass (manufactured by Merz of Munich) of the previously mentioned Gt Equatorial and our own 10" Merz OG was at one time piggybacked onto the Gt Equatorial for optical comparison on close double stars before being mounted at Orwell Park.



**THE 26" THOMPSON REFRACTOR
AT HERSTMONCEUX.**

Note the guide scope (with the 13" Merz OG) just visible above the main tube. The wooden floor inside the dome can be electrically raised or lowered by the operator – which prevents the undignified spectacle of observers having to 'limbo dance' when the instrument is pointing around the zenith – as sometimes seen at Orwell Park!

Photo by ken Goward

In 1967 a new dome was built a few hundred yards south of the Equatorial group to house the 98" Isaac Newton Telescope (INT). The instrument had a short period of use at Herstmonceux before a decision was made in 1979 to remove it to a more suitable mountaintop site at La Palma in the Canaries. And that really is the crux of the matter, low laying land in usually cloudy southern England is hardly the location modern-day observers would single out for optimum conditions. Mountaintops offer the advantage of increased clear nights above most weather systems. So sensitive were some of the instruments at Herstmonceux that they were even on occasions disturbed by a Channel high tide slightly weighing on the Pevensey levels, forcing a perceptible downward movement!

In its heyday in excess of 200 full-time staff were employed around the various buildings and instruments and a wonderful flavour of what life was like for them can be found in an excellent little book entitled 'Astronomers at Herstmonceux', published in 1999 but sadly now out of print. As the Observatory was so remote a very full social programme evolved and the book is replete with anecdotes from former staff. Some wonderful practical jokes were perpetrated upon unsuspecting new observers working alone in the Equatorial Group domes – wild blood-curdling screams directly outside in the small hours of the night or staff being disorientated in the morning light and falling into the many ornamental ponds around the premises – losing no end of photographic plates to boot. My favourite one involved the INT when some wag apparently placed an advertisement in a local newspaper - Vacancy for a full-time window cleaner to wash the 98" mirror!

As mentioned, the writing had been on the wall for some time regarding the future operation at Herstmonceux – and not just because of the observing conditions. Since its foundation and up to 1965 the Royal Observatory had always been administered as a part of the Admiralty. After that date it became the responsibility of the newly formed Science Research Council (SRC)* and for a short while there were benefits, not least increased funding as the observatory was now under the wing of a scientific organisation. However, financial cutbacks in the 1970s led to an extensive redundancy programme in the early 80s. Moreover, the Astronomer Royal – who had always been part of the Royal Observatory establishment – was for the first time separated from the organisation with the appointment of Sir Martin Rees in 1971 – a Radio Astronomer working at Cambridge. Thence the SRC's successor, the Science and Engineering Research Council (SERC)*, initiated a series of reviews, which culminated in a decision being taken to remove to Cambridge and for observational work to be concentrated in the Canaries. The telescopes at Herstmonceux were immediately redundant and there they sit to this day. The move was made despite many strong protests from within the scientific world and most notably by Sir Patrick Moore but the die was set – unfortunately, and as we see all too often, politicians only weigh cost implications as far as the next election. The move to Cambridge in 1990 was ill fated and in 1998 SERC's successor, the Particle Physics and Astronomy Research Council (PPARC)* made the decision to close the Royal Observatory altogether, bringing to a close 323 years of observational work.

Not all is lost, however, the Greenwich site is now run as part of the National Maritime Museum and is currently undergoing extensive modernisation with new exhibition galleries and a state of the art Planetarium coming on stream shortly.

* *How did we ever manage before Quangos came along? (!)*

We are fortunate that the Herstmonceux Equatorial Group was self-contained, enabling it to be taken over and run by a charitable trust – The Herstmonceux Science Centre. The remaining buildings and land at Herstmonceux, including the castle, has been sold to a Canadian University and is now an 'International Study Centre', but quite separate from the Science Centre – as is the vacant dome of the INT. One can, however, purchase a ticket from the entrance to walk around the castle grounds etc.

The Science Centre has become a self-contained attraction and has had the recent benefit of a large injection of Lottery funding. Besides the telescopes, one or two of which have been returned to working order, there are numerous displays and hands-on experiments for the youngsters (and not so young) to experience, besides an excellent cafeteria, shop and other facilities. It has been many years since OASI last organised a visit to Herstmonceux – indeed – looking through photographs taken at our last visit, some of the faces look VERY MUCH younger and less world-weary than now!

Come along and enjoy a fascinating day out and in so doing you will be supporting one of the very few Astronomy 'attractions' still available to us...

KJG

A SUPERNOVA FIRST FOR TOM BOLES

Tom Boles, from his observatory at Coddham in Suffolk, has won the honour of the first supernova discovery of the Year. This is the first time a UK observer has beaten the rest of the world's supernova hunters to claim the year's first discovery. SN2006A is in the galaxy NGC7753 in Pegasus and was just magnitude 18.1 when Tom discovered it on 2nd January. Like many world-class amateurs he finds he doesn't have the time to be a member of a local club, but although not an OASI member he has been able to visit us and he give a excellent lecture to the society soon after he moved to Suffolk in 2001.

Amazingly, there had never been a documented Supernova discovery from this country until 1996 when a small number of British amateurs, making the most of advances in CCD imaging technology, began to make discoveries at a startling rate. UK observers Tom Boles and Mark Armstrong came to the fore as two of the world's best in the field. Although astronomy is essentially a collaborative rather than a competitive endeavour, the *sport* of supernova discovery has an element of friendly rivalry: and it's great to see a locally based observer doing so well. This find brings Tom's tally of discoveries to 95, making him the world no 2, second only to American amateur Jim Puckett.

[There is a report of this discovery in the March edition of Astronomy Now.]

OASI COMMITTEE CONTACTS & RESPONSIBILITIES

Kenneth J Goward FRAS	Chairman	☎	Press & Publicity with the Secretary. Open Weekend.
Roy Gooding	Secretary	☎	MAIN POINT OF SOCIETY CONTACT. Press Publicity with the Chairman. Observatory Decoration. Visits by potential new members.
Garry Coleman	Treasurer	☎	Finance. Supervision of Grant Applications.
James Appleton	Committee	☎	Committee Meeting Minutes. Web site.
Martin Cook	Committee	☎	Membership. Tomline Refractor Maintenance.
Neil Morley	Committee	☎	Equipment Curator.
Ted Sampson	Committee	☎	Tomline Refractor tutoring. Social Activities.
Eric Sims	Committee	☎	Newsletter
Mike Whybray	Committee	☎	Librarian. Workshops
Paul Whiting FRAS	Committee	☎	Visits by outside groups.
Bill Barton FRAS	Committee	☎	Safety & Security
Peter Richards	Co-opted	☎	Lecture Meetings School Lighting liaison Email Distribution Lists

HERSTMONCEUX TRIP

SATURDAY 13TH MAY

BOOK NOW TO ENSURE THE VIABILITY OF THIS YEAR'S COACH OUTING – IF WE GET A POOR BOOKING RESPONSE WE CANNOT ARRANGE THE TRIP.

PLEASE CONTACT ROY GOODING asp
A deposit £5 per head is required.

DIARY FOR MARCH

MONDAY	SMALL TELESCOPES OBSERVING NIGHTS 6 th & 20 th Constellation Leo Constellation - ☎ Paddy O'Sullivan
WEDNESDAY	OBSERVATORY CLUB NIGHTS 1 st , 8 th , 15 th , 22 nd , 29 th from 8PM ☎ Martin Cook (mobile) OR Roy Gooding (mobile)
WEDNESDAY 22 nd Science Classroom FROM 8.00PM	OASI WORKSHOP 'Sights and Sounds of the Aurora' By Paul Whiting FRAS ☎ Mike Whybray
THURSDAY	OUTSIDE GROUP OBSERVATORY VISITS 2 nd from 19.40hrs 1 st Orwell Cubs (1) 9 th from 19.40hrs 1 st Orwell Cubs (2) 23 rd from 19.40hrs Suffolk Home Education ☎ Paul Whiting FRAS
SATURDAY 25 th 8pm	COMMITTEE MEETING Methodist Meeting Hall, Blackhorse Lane, Ipswich. ANY MEMBER MAY ATTEND ☎ Ken Goward FRAS

SOCIETY PRIMARY CONTACTS

CHAIRMAN Kenneth J Goward FRAS ☎ (daytime & evenings)
SECRETARY Roy Gooding ☎ (daytime) (evenings)
E-MAIL QUERIES ipswich@ast.cam.ac.uk
Contact details for the full Committee may be found on the inside back page

Society Trustees

Roy Adams David Brown David Payne
Hon President
Professor Allan Chapman D.Phil MA FRAS

☎ Observatory Meeting nights only



The Domes of the Equatorial Group of Telescopes at Herstmonceux