

# Lichfield Science & Engineering Society



PATRON
Mr. James Hawley
H.M. Lord-Lieutenant of Staffordshire

PRESIDENT 2007-2009 Richard J Tetley

# CHAIRMAN Brian Hammond DipEE, DMS, MITE Chartered Engineer

## **Newsletter: December 2008**

#### Lichfield Festival 2009

I made a mistake in the Programme Cards for the date of the Lichfield Festival Lecture. It will be on **Wednesday**, **15**<sup>th</sup> **July**.

Apologies to all for any inconvenience caused.

## Meetings

**September 11th**, Current Trends in Converted Weapons by our Treasurer's highly qualified Forensic Scientist daughter, Abigail Hannam, "The Forensic Investigation of Gun Crime" was an excellent lecture, very informative (although not instructive of the art of converting weapons!) and well attended. The figures are: members, 90; visitors, 29; students, 2: Total, 121, 50% above the September average for the last 10 years.

**October 1st**, "Greenwich Time - Clocks that changed the World" by David Rooney, Curator of Timekeeping at the Royal Observatory, Greenwich gave us a superb gallop across 300 years of Greenwich Time. Not a lot of technical content but such an outstanding speaker that we have asked him to propose a technical talk for 2010.

This meeting was greatly enhanced by the presence of Mark Richards, our youngest member and leader of the Chase Terrace Technology College team which won the national Land Rover TrakNavChallenge with the accolade from the Land Rover engineers that it was better than their own efforts and cost less than £175 to build. They should go far; I am sure we will hear more of these youngsters and this school!

Another extremely well attended lecture with 100 members and 44 visitors, including 2 from Burton.

**December 9th**, "T5: A Structural Engineer's Perspective" by Maurice Drake, a Structural Engineer and Ove Arup associate director, gave us a very broad view of the project. The big interest was the unusual construction process, the single-span roof, the largest in Europe,

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being built on the ground and jacked into position with the main structure erected underneath it afterwards. The new Control Tower was erected in a similar manner and the whole project, including the diversion of two rivers and a vast underground component, was completed ahead of time under budget, quite an achievement for a £4.5b mission.

As expected, attendance was high with 122 Members, 1 Student and 48 Visitors making a Total of 171.

By fitting in with the Pantomime schedule, we use the Theatre in December at no extra cost as the Studio is in use for Pantomime props. To make the most of this opportunity, we have to judge which meeting will have the biggest attendance and schedule it for December.

#### 19th Erasmus Darwin Memorial Lecture

Professor Lord Alec Broers' lecture "Harnessing Science: was it Easier in Darwin's Time?" on **November 18th** was acclaimed by many as one of the best, if not the best ever.

I received personal letters of thanks from our Patron, Mr James Hawley, and from the Bishop. Mr Hawley said "I much enjoy my association with LSES and it is so good to see the Society in such good heart" whilst Bishop Jonathan said "We had a really good evening, fascinating topic, very good meal, plus the encouragement of the young lads winning the Land Rover prize." The latter was certainly a high point: if only we could do that every year! (I should explain that the Committee and Guests' supper after the lecture is paid for by those attending: only our Speaker goes free.)

The audience of 384 was made up of 61 Students, 117 Visitors, 183 Members and 23 Guests (including the Chase Terrace boys and their parents).

#### Annual Dinner 2008

**October 22nd**, at The Oat Barn, Packington Moor Farm saw Dr John Lester, a member of the Society, give us a short talk on 'Sundials

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and Such'. We were intrigued to discover that the "and such" included Moondials and Stardials, as well as Mass Dials. The latter seem to appear in masses on some churches but the name derives from their use as an early alarum clock to tell the priest when to say Mass, although why he might need up to 16, as on one church, remains a mystery.

# Visits; Notice & Application Form

The visit to Seedy Mill Water Treatment Works & Blithfield Reservoir on **July 17th** was very interesting and made the more enjoyable by our two guides, Darren and Steve. The process is much more complex than most of us previously believed, with a great quantity of very smelly sludge being produced – to the benefit of local farmers. At the reservoir, Carla had a class of mature students to instruct and let slip that Mr. James Hawley, H. M. Lord-Lieutenant of Staffordshire and our Patron, fishes there. And all the good little boys and girls were given a model of a van commemorating 150 years of South Staffordshire Water plc.

The visit to the Symphony Hall, Birmingham on **October 29th** was initially oversubscribed but eventually enjoyed by 79 members and their families. During our tours, Rachael, an MA student, demonstrated the 6000-pipe organ to each of the four groups into which we had been divided.

The tour was very well balanced as between the general and technical and we learned, for instance that the Hall alone weighs around 32,000 tonnes and has a total volume is 25,000 cubic metres. It is founded on 120 concrete pillars interspersed with 800 rubber cushions to reduce vibration from the railway line which runs directly below the ICC site.

An identical hall was completed in Dallas two years before the Birmingham hall so that it 'worked first time'. Acousticians worked with the Architects to design an acoustically perfect environment for any type of event, including reverberation chambers and an acoustic canopy. It is so good that a pin dropped on stage can be heard anywhere in the Hall.

The Birmingham Gun Barrel Proof House visits on **November 24th and December 1st & 8th** proved overwhelming, by all accounts, taking the first group 4¾ hours to get round. Demonstration firings, talks and the tour made it well worth the small fee charged.

Irene and Tim have organised some more visits, so fill in the **enclosed booking form**.

### **Discussion Luncheons**

Unfortunately Kieran Brennan was unwell and thus unable to lead the fifth Discussion Lunch on **September 23rd**. Instead, the indefatigable

Jenny Arthur stepped in with some notes on Creationism and we had a good discussion on the teaching of the subject in schools.

Use the form enclosed to make your booking for the next Discussion Luncheon.

#### Charitable Status

Following the suggestion at the last AGM, a working party was established to look into the possibilities and practicalities of charitable status for the Society. After much deliberation and studying many long, legal documents from HMRC on Gift Aiding and VAT, as well as those from the Charity Commission, it was felt that we would gain only a very small benefit from a great deal of extra work. This is due largely to the way the Society operates – and needs to operate – in order to provide the benefits which members, the general public and local schools enjoy. Your Management Committee has therefore concluded that we should not pursue this matter further.

## Membership & Listing

This year's list, showing a record 280 current members, is enclosed with this mailing.

# Short History

The Short History of the Lichfield Science & Engineering Society, first published in 2002, has had updated pages glued into the reference sections by our intrepid Honorary Treasurers so that new members had some up-to-date information. The original print run has now run out and several of the Committee have been busy writing new paragraphs, updating the reference sections and translating the whole document from Serif Page Plus to MSWord, a process which has been more fraught than was anticipated!

The resultant new booklet has now been printed and will be provided to all future new members. In the meantime, any existing member who would like to purchase a copy of the 2008 edition may do so at a cost of £2.50 if collected at a meeting or £3.00 post paid. Applications and cheques, made out to LSES, to the Treasurer, please.

#### Seasonal Greetings

In signing off, I extend to you all the warmest wishes of the whole Committee and their long-suffering partners for a happy Christmas and a prosperous and healthy 2009.

Brian Hammond Chairman