

# British Tunnelling Society

at the Institution of Civil Engineers

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## NEWSLETTER December 2008

### INTRODUCTION

Welcome to the final edition of the newsletter for 2008. The highlights of the past few months have been the Tunnelling 2008 conference in October and Civils 2008 in November. A brief report on the Tunnelling 2008 conference is included in this edition and from all accounts it was a huge success.

Kate Richmond will be replacing Jade Donovan as Secretary of the BTS. Jade will be moving on to other projects within the ICE. The Committee would like to express its thanks to Jade for her support with the BTS and our activities and wish her every success for the future. Good luck also to Kate with her new role.

To all those members aged 33 and under, remember that the Harding Prize is to be held in 2009 with the prizes now as follows:

<b>First Prize</b>	<b>£500 plus years membership of BTS</b>
Second Prize	£200
Third Prize	£50

Entries are due by 31<sup>st</sup> January 2009 with presentation of the selected entries on 16<sup>th</sup> Apr 2009. Further information will be made available in due course but please e-mail Lawrence Halls for any further information required.

[Lawrence.Halls@tam.uk.com](mailto:Lawrence.Halls@tam.uk.com)

### INTERNATIONAL TUNNELLING ASSOCIATION

The Master Degree Courses now being developed by ITA in Tunnelling under the direction of Prof Andre Assiss is looking to extend its network beyond Madrid, Turin and Lausanne and will meet in Frankfurt in

December 2008 to agree funding, new locations and a Modus Operandi.

There are now 2 new member nations (there are now 54) --Kazakhstan and Peru.

ITA is hoping to enrol 3 more member nations by 2010.

The new role of Executive Director (Olivier Vion) begins in January 09 and the existing role of full time/paid Secretary General will be transitioned out by July of 09.

Annual fees for Member Nations have been increased by 5%

ITA will in future publish its reports (was Elsevier until middle of 08)

Two new Prime Sponsors --Vinci and the Government of Saudi Arabia Ministry of Transport

Martin Knights, the current President of the ITA, gave a 15 minute address on the 12th November 2008 to a joint meeting of the BTS and the BGA. The address concerned recent progress and strategy and news on Committees and Working Groups. ITA Sponsored two congresses in Singapore, Salzburg and Guangzhou in recent weeks and Martin Knights gave keynote lectures at each event and talked about the work of ITA and BTS as well.

ITA is sponsoring a shotcrete conference in Johannesburg in early March 09- for those who are interested contact the ITA website.

Contact: [Donald.lamont@hse.gsi.gov.uk](mailto:Donald.lamont@hse.gsi.gov.uk)  
[Martin.Knights@jacobs.com](mailto:Martin.Knights@jacobs.com)

## FUTURE MEETINGS and EVENTS

All meetings now start at the Institution at 18.00 unless stated, with tea and coffee on the lower ground floor from 17.30. The bar opens at 17.30 and is open until late. Flysheets on the details of the meetings are circulated in advance in T&TI and details are also posted on the website a month or so in advance of the meeting.

11 <sup>th</sup> Dec 2008	<b>Debate:</b> <i>This house believes:</i> Tunnelling contracts are best implemented based on a detailed design procured by the client before tendering the construction contract
15 <sup>th</sup> Jan 2009	<b>Canada Line Transit Tunnels, Vancouver, British Columbia</b>
19 <sup>th</sup> Feb 2009	<b>Joint Meeting with MinSouth</b>
19 <sup>th</sup> Mar 2009	<b>TBD</b>
16 <sup>th</sup> Apr 2009	<b>Harding Prize 2009</b>
21 <sup>st</sup> May 2009	<b>AGM and Informal Discussion – A3 Hindhead</b>
18 <sup>th</sup> Jun 2009	<b>Informal Discussion Sao Paolo</b>

## TUNNELLING 2008

The Tunnelling 2008 Conference welcomed some 250 delegates and speakers to Earls Court Conference centre on 16th October.

Delegates were treated to a packed programme of presentations including up to date information on the status of Crossrail, Thames Tideway and NGC Cable tunnels.

Delegates were able to pose questions to some of London's most important Clients during an "Ask the Client Session" and in the afternoon a panel of eminent Tunnel engineers led the debate on the question of the challenge that the Industry faces in providing sufficient competent resources for the massive programme of work envisaged in the next 10-15 years.

Donald Lamont provided an up date on the latest standards from HSE and thought provoking presentations were given on Sprayed Concrete solutions for tunnelling projects and the case for the use of fire suppression systems in Road tunnels.

Further presentations were given on a wide range of subjects including the Glendoe hydro-electric scheme.

During the coffee and lunch breaks delegates were able to view exhibitors' stands showing some of the latest products available in the market.

Following the close of the Conference the BTS continued with their regular monthly presentation which was on the Dubai Metro and the whole day was finally completed with a Drinks reception sponsored by Tam International and VVB Engineering Services

Feedback comments from the conference included the following:

- "Informative and up to date on challenges"
- "Good background information"
- "Excellent breadth of information"
- "A good opportunity to get an overview of the tunnelling industry"
- "Excellent presentations and information"
- "Very good presentation of the market situation"
- "A must for all tunnelling engineers"
- "This was a useful update on both technical and practical issues facing the tunnel industry"
- "Excellent forum for meeting major players in the tunnelling industry"
- "The state of the tunnelling industry today"

David Court  
[David.Court@edmund-nuttall.co.uk](mailto:David.Court@edmund-nuttall.co.uk)

## CIVILS 2008

This was held at Earls Court from 18 – 20 November 2008.

Contact Gerry Sherwood or Heather Kerr, Emap Construct, Tel: 020 7728 5000  
E-mail: [gerry.sherwood@emap.com](mailto:gerry.sherwood@emap.com) or [heather.kerr@emap.com](mailto:heather.kerr@emap.com)

## BTS WEBSITE UPGRADE

Members are reminded again that the site address has changed to [www.britishtunnelling.org.uk](http://www.britishtunnelling.org.uk). This has been

required so that we can bring the domain name into UK registration and ease future management of the site. The old site will still function and you will be redirected to the new site in a seamless manner. Please update your favourites list to reflect this change. We are continually seeking to improve and we welcome suggestions. Contact: [christopher.bambridge@mottmac.com](mailto:christopher.bambridge@mottmac.com)

## HEALTH & SAFETY

### SAFETY, STANDARDS AND CODES UPDATE

**CEN Standards** – The draft revision of EN 12111 (Roadheaders) which was started in January 2008 is now almost ready for submission to the CEN consultant and to go to CEN enquiry. Likewise the draft revision of EN 12110 (Airlocks) was also virtually completed during 2008. Much remains to be done before both texts could be published as harmonized standards. Work on the combination of ENs 12336 and 815 continues with the next meeting being in Frankfurt in early December. We still hope to encourage the French to participate in this work.

**BS 6164** – the revision of BS 6164:2001 began in earnest during 2008 and there has been considerable input from BTS representatives on the BSI committee. Monthly meetings were planned for October, November and December but whilst progress remains slow, the discussions have proved interesting if not challenging at times.

**Nitrogen Monoxide Guidance** – A paper on the UK response to the changes in NO exposure limits, including the BTS guidance, was presented at the 2008 World Tunnel Congress in Agra. Authors included Paul Hoyland and Donald Lamont who also presented the paper.

**Compressed Air Working Group** – CAWG has almost completed work on the digitisation of the Radiographic Atlas, first used to classify dysbaric osteonecrosis in the 1960s. CAWG has also discussed at considerable length HSE's proposals for the revision of L96 – Guide to the Work in Compressed Air Regulations 1996 and its recommendations for changes to the document were reported back to HSE in Autumn 2008. CAWG is currently in discussions with HSE and HSENI over the use of real-time Doppler monitoring on the Belfast Sewer Tunnel project. In addition CAWG has also recently become involved in considering how compressed air work at pressures in excess of 5 bar could safely be undertaken.

### TUNNEL DESIGN AND CONSTRUCTION COURSE 2009

Early planning for the 2009 BTS training course has started. The course is to be run again at Brunel

University, which keeps us at this popular venue and linked with Brunel himself!

The 2009 course will run from 15 - 19 June and further information will be available in 2009.

### YOUNG MEMBERS' COMMITTEE

The first BTS Young Members' Committee meeting was held on 9<sup>th</sup> October 2008 at the ICE. There were 22 at the first meeting and several more are interested in being involved who could not make the first meeting. We have representation from 12 different companies which is an encouraging start. We are, however, under-represented by contractors which we hope to improve over the coming months.

The enthusiasm was very encouraging and four sub-groups have met to start developing ideas and planning what they will do over the coming year.

Kate.Cooksey@morganest.com

### ANNUAL DINNER

Annual Dinner – 8th May 2009 at 7.00pm for 7.30pm (Carriages at 1am)  
The Brewery, Chiswell St London EC1

After considering various options, the committee has decided to hold the 2009 Annual Dinner at The Brewery, despite the restrictions on live music after 11pm, which effectively prevents us from having a band on stage, so recorded music will round off the proceedings, as in 2008.

Otherwise the format will be as usual for this black tie event. The evening will begin with a champagne reception in the Brewery's King George III Room, after which we make our way to the Brewery's Porter Tun Room Banqueting Centre.

After the dinner and Chairman's address, our guest speaker will be Britt Ekland. The evening rounds off with a mix of networking, socialising and dancing, to recorded music.

Once the Brewery finalise their 2009 menus, and we have done our sums, we can confirm the ticket price. Booking, via the British Tunnelling Society, is planned to 'go live' in February 2009.

### ONE DAY UNDERGROUND SAFETY COURSE

This was held in late October 2008 and was a huge success. The course was intended for engineers and supervisors who have broad health and safety knowledge but who are not familiar or only slightly familiar with underground working. The course concentrated almost exclusively on the hazards posed by tunnelling and the underground environment.

It is planned to hold this course again in 2009. Details will be available in due course.

## LOBBY GROUP

The All Party Parliamentary Group for Underground Space has been organising site visits to tunnelling projects for Parliamentarians over the last six months.

In July we visited the cable tunnels project in Croydon where Morgan Est, National Grid and EDF gave a very informative morning on the advantages of cable tunnels, the business case for them and a visit to some of the underground works.

We will be visiting the Hindhead Tunnels in mid-December with a group of MPs and Peers. This will be an opportunity for them to view sprayed concrete work and hear about issues surrounding the project from Balfour Beatty and the Highways Agency. It is particularly auspicious that the BTS Chairman, Paul Hoyland is the Project Manager at Hindhead.

Members of the BTS Committee are co-ordinating information to write to the Government about the disposal of tunnel arisings and the taxation issues surrounding this.

We have had representatives attend a number of meetings of the Associate Parliamentary Engineering Group keeping up our profile in the Houses of Parliament.

We will be arranging a presentation in the Houses of Parliament in March 2009 as part of the APGUS Annual General Meeting. Further details will be available after Christmas.

Further information from Helen Natrass –  
[h.natrass@sir-robert-mcalpine.com](mailto:h.natrass@sir-robert-mcalpine.com)  
0207 220 2440

## GOSSIP

Please send any interesting news about members to AndrewHindmarch:

[Andrew.Hindmarch@mottmac.com](mailto:Andrew.Hindmarch@mottmac.com)

## OBITUARIES

**Professor Dennis Walder** died on 4th September 2008. He was Professor in Surgical Science at the University of Newcastle upon Tyne until his retirement in June 1982 after which he was awarded the title of Emeritus Professor. Professor Walder was a world authority on dysbaric osteonecrosis and was awarded the James Clark Medal by the BTS in recognition of his work in overcoming the health problems arising from tunnelling

in compressed air. There will be a Memorial Service for Professor Walder on Friday 28 November at 2pm at All Saints Church in Gosforth.

Dennis was of course a founding member of the MRC Decompression Sickness Panel, and Chairman for many years; subsequently he had been a core member of the BTS Compressed Air Working Group, attending every meeting until recently. He will be greatly missed.

Tony Evans Secretary BTS CAWG

## Terrence Richard Crabb B Sc (Hons). C Eng. MICE.

We regret to announce the sudden and tragic death of Terry Crabb on the 25th October 2008 at the age of 54 while on holiday in India. Though a foundation engineer rather than a tunneller by training and experience he was a regular attendee at BTS Meetings and frequently contributed to the question and answer section.

Terry commenced his working career with Cementation in 1976 and then moved to Terrasearch, the Taylor Woodrow foundation engineering company in 1986 where he rapidly climbed to Contracts Manager and then Operations Director in 1991.

Terrasearch was wound up in a re-organisation and re-structure but Terry remained head of the Foundation Engineering Section which thrived, being forward looking and innovative. There are many structures in London which rely on his diaphragm walls and piles including the advance piles for Thameslink in the forecourt of London Bridge Station and the piled walls to the Borough High Street Ticket Hall.

As Taylor Woodrow decided to withdraw from heavy civil contracting in 2000 Terry left to join the recently formed London Bridge Associates and in no time at all was taking a leading role in the development of this company to the established position it occupies in our industry today. Here he became more interested in tunnelling although was never happier than when he could go and do some foundation engineering planning or problem solving. He kept himself very up to date and always was aware of the latest techniques and their applications.

He was a great team leader and spent most of his time caring for the team and finding a good fit between individual aspirations and inclinations and forming effective units to work with Clients. He was a social animal being naturally gregarious and having a developed and infectious sense of fun. He enjoyed sport and was a keen skier sometimes arousing anxiety in his colleagues who were continually worried that he would himself damage on the slopes having managed to break a hip in France a few years ago.

We will remember him as our friend, as a passionate engineer and for his contribution to our team, our company and our social life.

Robert Ibell  
London Bridge Associates.



“Tunnels and Underground Spaces for Transportation & Urban Development”, 18-20 May 2009, Tehran, Iran

“World Tunnel Congress & 35th ITA General Assembly 2009 - Safe Tunnelling for the City and Environment”, 23-28 May 2009, Budapest

“RETC 2009”, 14-17 June 2009, Las Vegas, USA

“Swiss Tunnel Congress”, 17-19 June 2009, Lucerne, Switzerland

“5th Symposium of Strait Crossings”, 22-25 June 2009, Trondheim, Norway

“EURO:TUN 2009”, 9-11 Sept 2009, Bochum, Germany

## **BTS CLOSED FACE WORKING GROUP**

Copies of the Report continue to sell well.. The Report which costs £65.00 is available from Thomas Telford, (Tel 44 (0) 1892 832299, Fax 44 (0)1892 837272, [orders@thomastelford.com](mailto:orders@thomastelford.com) or via the internet [www.thomastelford.com](http://www.thomastelford.com) ) from the ICE bookshop at Great George Street and other outlets.

## **HAVS BEST PRACTICE GUIDE**

The HAVS document which has had a significant contribution from the HSE provides the industry with a Current Best Practice Guide to the management of HAVS and is essential reading for all and is available on the website [www.britishtunnelling.org.uk](http://www.britishtunnelling.org.uk) go into Working Groups and then safety.

## **CONFERENCES**

Don't forget to look at the back pages of Tunnels & Tunnelling International and Tunnelling and Trenchless Construction for the conferences coming up over the next two years. Also the International Tunnelling Association website [www.ita-aites.org](http://www.ita-aites.org)

“Shotcrete For Africa”, 2-3 March 2009, Johannesburg, South Africa

“China Tunnel Summit”, 26-27 March 2009, Beijing, China