

# British Tunnelling Society

at the Institution of Civil Engineers

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## NEWSLETTER

April 2011

### INTRODUCTION

Welcome to April 2011's edition of the newsletter.

The presentations at the BTS meetings continue apace in 2011. In January Andy Thompson of Hatch Mott MacDonald gave a talk on the East Side Access Project in New York, USA.



**BTS Chairman, Bob Ibell with Andy Thompson of Hatch Mott MacDonald at January's BTS Meeting.**

February saw the regular joint BTS/Minsouth Presentation. This year John Sawyer and Gerhard Keyter of ESKOM presented The Ingula Pumped Storage Scheme.



**L to R: Bob Ibell, Valerie Batterham (Minsouth Chair), Gerhard Keyter (ESKOM), John Sawyer (ESKOM) and Alan Bozeat (BTS/Minsouth Rapporteur)**

The latest meeting in March saw Fred Green of London Underground, Brendan Reilly of TubeLines Dickie Dexter of J Gallagher Ltd and Philip Wall of Capita Symonds give a presentation on the Green Park Step Free Access.



**L to R: Bob Ibell, Dickie Dexter of J Gallagher Ltd, Philip Wall of Capita Symonds, Fred Green of London Underground, Brendan Reilly of Tubelines and Steve Parker, BTS Rapporteur.**

## FUTURE MEETINGS and EVENTS

- 14 Apr 11 **Harding Prize Competition**  
NOTE DATE CHANGE  
19 May 11 **BTS AGM + Limerick Immersed Tunnel**
- 29<sup>th</sup> June 2011 **High Speed Railway Tunnels in Spain**  
NOTE -  
Wednesday at  
Earls Court  
Exhibition  
Centre. Start  
4:30pm
- 15 Sep 2011 **Crossrail Status update**
- 20 Oct 2011 **BTS / BGA Joint Event. Towards a Specification for the Ground - The use of Geotechnical Baseline Reports in the UK**
- 17 Nov 2011 **Dulles Airport Rail Tunnel, Washington DC**
- 15 Dec 2011 **Cleaner Seas For Sussex**

All meetings 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.

Steve Parker  
[Steve.Parker@crossrail.co.uk](mailto:Steve.Parker@crossrail.co.uk)

## BTS WEBSITE

Over the last six months, a number of changes have been made to the BTS Website ([www.britishtunnelling.org.uk](http://www.britishtunnelling.org.uk)). As well as general updates, these include:

- A “Next Meeting” button on the Home Page, taking the viewer directly to the flyer for the next monthly meeting
- A Calendar function which allows the viewer to open one or all of the BTS meetings and events, and load these directly into the Outlook calendar on his/her PC or Mac. This function can be accessed through either the Events or Meetings Programme Pages
- A FAQs (frequently asked questions) section, which aims to provide responses to many common questions, and can be found under the Contact Page

- Two new pages hold the presentations and a selection of photographs from the Sir Alan Muir Wood Symposium of October 2010. These can be found under the Symposium on the Events Page
- A list of the presenters of the Harding Lecture, and the subject of their lectures (Awards Page)
- A list of the past BTS Chairmen (Committee Page)

If you have any queries, comments or suggestions, please contact [ken.spiby@lbassoc.co.uk](mailto:ken.spiby@lbassoc.co.uk)

[www.britishtunnelling.org.uk](http://www.britishtunnelling.org.uk).

## SAFETY, STANDARDS AND CODES UPDATE

CEN standards - the CEN enquiry period has ended. The vote was strongly in favour of the standards going forward for preparation of the final texts, only France voted against. Disappointingly only two sets of comments were received from the UK. It is planned to hold a meeting of CEN/TC151/WG4 in early June to resolve the comments.

BS 6164 – The Draft for Public Comment stage ended last week with no external comments being received by BSI on the text. There is a meeting of the drafting committee in early April to review comments received from drafting committee members.

ITA – The 2011 ITA General Assembly and World Tunnel Congress will be held in Helsinki in late May. Donald Lamont is the UK Member Nation representative and any queries about ITA matters should be directed to him

Remember that you can also download free of charge the following documents from the BTS website. Click on the Publications link.

*Tunnelling and Pipejacking: Guidance for Designers*

*The Management of Hand-Arm Vibration in Tunnelling*

*The Joint Code of Practice for Risk Management of Tunnel Works in the UK*

*Occupational Exposure to Nitrogen Monoxide in a Tunnel Environment*

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[ben.mcalinden@ice.org.uk](mailto:ben.mcalinden@ice.org.uk)

## UNDERGROUND HEALTH AND SAFETY COURSE

The course will be held again in 2011 on 28<sup>th</sup> & 29<sup>th</sup> November. Full details will be posted in due course.

[Roger.Bridge@bbcel.co.uk](mailto:Roger.Bridge@bbcel.co.uk)  
[Ben.McAlinden@ice.org.uk](mailto:Ben.McAlinden@ice.org.uk)

## TUNNELSKILLS REPORT

The first Quarter of 2011 has seen the culmination of several TunnelSkills projects aimed to improve and recognise the competency of the industry's workforce. Namely:

- Construction Plant Certification Scheme (CPCS) category for tunnel locomotives available from 1st April 2011;
- Tunnelling category for Level 3 NVQ in Construction Site Supervision available from 1<sup>st</sup> April 2011;
- NVQ qualifications for shotfiring and explosives transportation in tunnelling will now be available from 1<sup>st</sup> May 2011;
- The learning units for the proposed Level 2 Construction Diploma in Tunnelling Operations have been completed for submission to Ofqual for approval. Work will begin shortly to produce the necessary question bank and also other material required for the new framework apprenticeship to be launched in June of this year.

Looking ahead, TunnelSkills is about to start reviewing the confined spaces training and qualifications currently available. It is likely that a new package will be developed for tunnel construction and maintenance operations. Discussions are soon to begin with other interested parties regarding SCL training and certification initiatives. Work on site supervisory and management training in tunnelling will now move forward again, in close consultation with BTS.

The TunnelSkills Safety Passport Scheme, now in its third successful year, continues to attract growing numbers of individuals and organisations wishing to demonstrate the highest standard of tunnel safety training in the UK workforce. The 2011 annual review will see the training package improved further and become a nationally-recognised QCF qualification.

For more information on any of the above please contact [brian.earnshaw@mat-consult.com](mailto:brian.earnshaw@mat-consult.com)

**Brian Earnshaw**  
Training Officer

## BTS DESIGN AND CONSTRUCTION COURSE 2011

This year's annual BTS Tunnel Design and Construction Course will take place from 4<sup>th</sup> to 8<sup>th</sup> July 2011, at the University of Warwick, Coventry. This course has been designed to meet the needs of young consulting and contracting engineers starting out on a career in tunnelling, and for others (such as Clients or insurance professionals) who have to date only a limited involvement in the industry.

The course covers in depth introductions to a huge range of tunnelling related subjects, presented by industry experts, and includes a number of interactive workshops. 2011 brings a number of content changes to the course, reflecting the thoughts of last year's attendees.

For further information and a booking form, please download the flyer from the BTS Website (Events Page).

<http://www.britishtunnelling.org.uk/events.php>

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## YOUNG MEMBERS' COMMITTEE

The Young Members' Committee has continued to work hard since Kate Cooksey handed over the role of Chair to Anita Wu during their second AGM at the ICE in November. The committee now has 31 members split into 5 subgroups since the beginning two years ago.

The BTSYM Committee has held a series of events including talks at the ICE, several site visits and recently, a social. The latest talk 'Reinforced Concrete for Underground Structures' was held on the 31<sup>st</sup> March, as always, the talk was well attended. The next event at the ICE will be an Innovation Evening in June. All talks are broadcast live and playbacks are available. Links for them are sent to the BTSYM mailing list and BTS members.

The BTSYM has organised several site visits including a visit to the Tyne Tunnel, Hindhead Tunnel, Green Park Station Upgrade, Broadway Alleviate Scheme and the committee is currently planning the next visit to the Brighton & Hove Wastewater Scheme. The committee is always looking for site visit opportunities so if you are able to help further the knowledge of young members in the industry please get in touch.

In December, the BTSYM committee were invited to the Thames Tunnel Banquet for the third time at the Brunel Museum to celebrate the Underwater Banquet in 1827. 14 members of the committee also attended an APGUS reception in March which was a great opportunity to speak to politicians about the future of the tunnelling industry.

The BTSYM committee has also been visiting universities in London and currently aims to visit universities outside of London. These visits will promote the tunnelling industry and give students an idea of the work they can be involved with.

The BTSYM website went live in May 2010 and is maintained by the BTSYM Website Group. They are currently working hard to update the content of the website and are also in the process of writing a Wikipedia page for the BTS.



**Some of the Young Members Committee at the recent APGUS event**

**Chair: Anita Wu ([WuAnita@pbworld.com](mailto:WuAnita@pbworld.com))**

**[David.Naylor@mottmac.com](mailto:David.Naylor@mottmac.com)**

**[Facebook](#) under BTSYM**

## ANNUAL DINNER

Plans are well advanced for this year's dinner on 6th May at The Brewery in London. Our speaker this year is comedian, broadcaster and author Sandi Toksvig.

Booking is now open via the BTS website, and will remain open until 29th April 2011, or sooner if we reach capacity for the venue, which is a distinct possibility.

Information on the event is available at:

<http://www.britishtunnelling.org.uk/dinner-info.php>

Booking is on line at:

<http://www.britishtunnelling.org.uk/dinner.php>

For those few people who do not have web access to book their places, old fashioned postal booking forms for this event may be obtained from:

BTS Secretariat  
Institution of Civil Engineers  
One Great George Street  
London SW1P 3AA

You may also telephone Ben McAlinden at ICE on 020 7665 2229 for a booking form. Should you have any queries please contact: [btsdinner@jacobs.com](mailto:btsdinner@jacobs.com)

## NEWS ON MEMBERS

Please send any interesting news about members to Andrew Hindmarch:

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

## UNDERGROUND CONSTRUCTION 2011

Incorporating the International Tunnelling Exhibition

29th & 30th June 2011

Earls Court, London, UK

To keep completely up-to-date in the latest developments in underground techniques and equipment, we are delighted to announce the full conference programme for the 2011 Underground Construction Conference, taking place at Earls Court, central London on 29th and 30th June 2011.

We have assembled an International line up of exceptional Industry leaders, including a keynote Address from Terry Morgan, Chairman of CrossRail Ltd and major presentations from Keith Bowers, London Underground, and Peter Jewell, from the Lee Tunnel project.

The two-day Conference is being co-ordinated by British Tunnelling Society, Institute of Materials, Minerals & Mining, and the Pipejacking Association with support from the International Tunnelling Association and many other professional bodies.

To view and download the conference programme, and to register your place please visit [www.tunnellingshow.com](http://www.tunnellingshow.com) or contact Gary Stringer on +44(0) 207 9736695 or via email [g.stringer@hgluk.com](mailto:g.stringer@hgluk.com)

## TUNNELLING ACADEMY TRAINING MANUAL PRODUCTION

Crossrail is developing the Tunnelling Academy with the support of the tunnelling industry. The Tunnelling Academy will address the shortage of skilled underground workers required to deliver the Crossrail programme, as well as a number of other major tunnelling projects being delivered in London and the UK over the next ten years.

The Tunnelling Academy will be a purpose-built facility designed to provide high quality tunnelling operations training while increasing trainees' awareness of the tunnelling environment and its hazards.

## LOBBY GROUP - APGUS

On 22nd March 2011 APGUS held a joint reception with the All Party Parliamentary Group for Infrastructure in Portcullis House. The Rt Hon Nick Raynsford is chairman of both groups. The date was auspicious, the evening before the Budget. With our theme message of 'Infrastructure for Growth' the reception captured the attention of more Parliamentarians than usual. Brief speeches were made by Helen Nattrass (BTS), Peter Hansford (ICE President), Nick Raynsford MP and Mark Garnier MP (Treasury Select Committee). We made the point that the Government should invest savings wisely and prudently in forward-looking infrastructure which will enable our country to keep its place in the European and world markets.

The guests included Chairmen and CEOs of major infrastructure client companies, designers, constructors and manufacturers, representatives from academia and learned societies and a number of APGUS/BTS long-term supporters. Our BTS Young Members were also present and active, getting the message across to others and showing politicians that these issues matter to the industry leaders of the future. A full room with a good mix of people ensured an interesting and successful evening. The Budget Statement from the Chancellor the following day gave a hopefully positive response to the issues we raised. The reception raised the profile of APGUS and the BTS and has resulted in enquiries for briefings from a number of politicians. Even just by our sending out invitations, politicians have to read them to refuse them; in itself a part of lobbying!

We thank Paul MacArthur of SCCS Survey, for his generous sponsorship of the BTS, allowing the provision of suitable refreshments.

The next APGUS event will be the AGM in mid-July 2011. This will take place in the Houses of Parliament. Anyone wishing to express an interest in attending APGUS events or wishing to raise questions for Parliamentarians should get in touch with Helen Nattrass, BTS Lobby Group Chairman.

**[h.nattrass@sir-robert-mcalpine.com](mailto:h.nattrass@sir-robert-mcalpine.com), tel: 0207 220 2440**



**Helen Nattrass (BTS) with Angus MacNeil MP at the recent APGUS event.**

## 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.

## 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)

WTC 2011 Helsinki – Underground Spaces in the Service of a Sustainable Society  
Helsinki, Finland  
21-26 May 2011  
[www.wtc11.org](http://www.wtc11.org)

2011 RETC, June 19 - 22, 2011  
San Francisco, California  
[www.smenet.org](http://www.smenet.org)

Tunnel Design and Construction Asia  
Sentosa, Singapore  
22<sup>nd</sup> and 23<sup>rd</sup> June 2011

Underground Construction and International Tunnelling Exhibition  
Earls Court, London UK  
29<sup>th</sup> and 30<sup>th</sup> June 2011  
[www.tunnellingshow.com](http://www.tunnellingshow.com)

6<sup>th</sup> International Symposium on Sprayed Concrete  
Tromso, Norway  
12-16 September 2011  
[www.sprayedconcrete.no](http://www.sprayedconcrete.no)

IUT 2011  
Sargans, Switzerland  
14<sup>th</sup> and 15<sup>th</sup> September 2011

Underground Infrastructure of Urban Areas  
Wroclaw, Poland  
26-27 October 2011

**Peter McCann 1931 - 2011**



It is with much sadness that we record the death of Peter McCann, a long time and active member of the British Tunnelling Society. Peter died at home on the morning of 9th February after a prolonged battle against cancer.

Educated at St Edmunds School, Ware and Imperial College London 1954 – BSc Eng, he became an Associate of the City & Guilds in 1954 and a Member of the Institution of Civil Engineers in 1961.

During National Service (1956-1958) he was commissioned in to the Royal Engineers based at Gurkha- Depot in Nepal where he had responsibility for the supervision of contracts on a 5 mile water supply pipeline, and early experience of “digging holes” for underground storage tanks.

Early in his career in Civil Engineering he was employed by John Laing & Sons (1954 – 1964), first as an Engineer and then, by a series of promotions, to senior positions in design, planning and subsequently as Sub-Agent and Agent on construction contracts. During his time with Laing he was involved with a wide variety of projects that included motorway construction, building works and again, tunnelling works for a main drainage tunnel in Hull.

For a short period prior to joining Mitchell Brothers in 1965 he was employed as an Agent in the Mitchell Construction Kinnear Moodie Group - company names synonymous with hard rock and soft ground tunnelling.

He will be remembered by the tunnelling fraternity first by his time with Mitchell Brothers & Sons Ltd (1965 – 1977) as an Agent, Contracts Manager and Director where he was responsible for numerous major tunnelling contracts on the London Underground system that included running tunnels on the Victoria Line (Oxford Circus Station to Euston), and station tunnels and escalators at Warren Street. He was also involved with a number of smaller diameter tunnels for main drainage scheme at Smethwick and a Post Office tunnel at Whitechapel and St Pauls prior to more work on the London Underground for escalator tunnels at Waterloo,

and the Brixton extension including twin station tunnels at Vauxhall.

In 1977 he formed a partnership with Derek Thomas (Former Managing Director with Mitchell Bros) under the name of Thomas Dooris Associates, the company provided a comprehensive commercial and technical service to contractors.

From 1977 to his retirement in 2004, Peter will be remembered by many for advice provided and assistance with contractual claims on numerous projects. These included the compressed air contract for a drainage tunnel in Warrington, rock tunnels and shafts for a hydro-electric contract in Swaziland and a main tunnel contract for the Yorkshire & Tyneside local authority. During this same period he was engaged as an expert witness and witness of fact in arbitration proceedings and as an expert witness by both claimants and defendants on several actions resulting from industrial injuries.

Aside from his professional involvement with the tunnelling industry as a whole, he was an active member of the British Tunnelling Society and was keen to involve and support ladies in the activities of the BTS. He was instrumental in organising an informal dinner party for members and their wives and partners after an AGM some 25 years ago and he was pleased to recall that it was this informal gathering that sparked interest in the official Annual BTS Dinner, now in its 23rd year. He liked rugby, was a member of Saracens and a regular supporter at the Middlesex Sevens where some members will recall the excellent food prepared by his wife Jacqueline and the wine cooled by layers of frozen trout, which guests could take home at the end of the day.

He will be remembered by many as an archetypal ‘officer and gentleman’ always with a ready and loud laugh to share the funny side of any situation. He will be sadly missed by colleagues and by the regulars in the ICE Buttery.

Peter is survived by his wife Jacqueline, also a great supporter of those in the tunnelling industry and their wives and partners, his son Alistair, and daughters Nicola, Catherine and Sarah.

*Maurice Gooderham*

**Tony Watt**



We are sad to record the passing of one of the industry's leading Safety Advisors. Tony Watt went to Hong Kong to take up a new position towards the end of last year but returned to the UK just before Christmas unwell and died on 3rd January 2011.

Tony commenced work as an Apprentice Die and Tool Fitter in 1968 at the Smith-Clayton Forge in Lincoln. He moved to British Coal in 1980 where he graduated from Colliery Mechanic to Safety Officer/Ventilation Engineer. He remained with British Coal (Manton Colliery), gradually taking on more responsibilities, until the mid 90's when he moved to tunnelling and shaft sinking, firstly with Kvaerner, where he spent some time shaft sinking in Northern Turkey, and then Taylor Woodrow Construction.

He joined the team on Contract 104 Jubilee Line Extension in the later days of the works and immediately became a driver of Occupational Health Advances, Competence (NVQ's), Underground Safety Passports and a progressive approach to Health and Safety underground.

He went on to work as the Senior Safety Advisor on the Ramsgate Port Access Tunnel, and then take on duties across the range of Taylor Woodrow contracts. He moved to Costain as the CTRL commenced and was the Senior Safety Advisor on Contract 240. Here he again led the introduction of Underground Safety Passports, an excellent Occupational Health regime and established the CSB Joint Venture as an accredited assessment organisation for tunnelling NVQ's. He recognised the importance of the right safety culture and took forward behavioural safety and safe working assessments.

He adapted to work on the highways when he went to the Holmesdale Tunnel refurbishment project on the M25 before moving to Balfour Beatty on the very successful new tunnel at A3 Hindhead, a project that again gathered plaudits for its health and safety culture.

Tony contributed to the industry via NVQ Occupational Working Groups, TunnelSkills and speaking on BTS courses.

He was never a man to be happy with inaction or avoidance of issues. He would worry problems through until he had a workable and risk acceptable solution. He

was always happy to get out on site and get the message across first hand and his friendly "Excuse me my friend" as he introduced himself to a man carrying out some unsafe act was typical of his approach. He also had literacy skills and was equally at home writing reports, procedures, plans and papers on safety.

He was always passionate about what he did and never afraid to criticize the production managers if he felt they were not giving safety the priority it needed. He was a good friend, a good ally and a good partner in taking things forward. The UK Tunnelling Industry has lost one of its progressive stalwarts.

*Bob Ibell*