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The international board meeting of the ISTT and the *International No-Dig Down Under*

by Joop van Wamelen

The international board meeting held in Sydney on 1 September 2013

The board of the International Society for Trenchless Technology (ISTT) meets once a year just before the start of the annual *International No-Dig* conference and exhibition. There is a steady growth in the number of affiliated societies for trenchless technology. Accordingly, the international board meeting has more delegates every year. Almost every society was represented, including SASTT. I was privileged to represent SASTT at the meeting.

The first important item on the agenda was the induction of the new chairman, viz Derek Choi from Hong Kong. Enrico Boi from Italy was elected as vice chairman.

There was an election of members for the executive sub-committee (ESC) of the ISTT. The competition was strong and the new ESC comprises a group of formidable people. They will lead the ISTT well.

The locations of future No-Digs were decided, viz

- Beijing in 2016
- Medellin in 2017.

(The locations of the International No-Digs in 2014 and 2015 are Madrid and Istanbul resp.)

An interesting item on the agenda was the reports of the affiliated societies. Every representative had a few minutes to trot his or her society's stuff. The variety of themes was fascinating. Since 23 out of 28 affiliated societies were represented, this item took a good deal of time, but it was fun.

I told the meeting that SASTT was twenty one years old – which, incidentally makes it one of the ten oldest affiliated societies. Furthermore I reported that SASTT had developed standards for sliplining and pipe bursting and had commissioned the development of standards for horizontal directional drilling and cured-in-place pipe-lining. SASTT would have a stand at the conference of IMESA to be held in Port Elizabeth. Lastly I told the meeting that SASTT was planning the *ISTT Masterclass and No-Dig South Africa (NDSA 2014)* in Pretoria on 29 – 30 July 2014.

The *International No-Dig* conference and exhibition held in Sydney on 2 to 4 September 2013

You got to hand it to the Australians: they know how to organise a good show – remember when they hosted the Olympic Games? This No-Dig was no exception. The venue was the Sydney Convention and Exhibition Centre. This in itself is an impressive centre, quite apart from its sheer size. Its location is of the best, with good access by public transport and lots of restaurants and accommodation within walking distance. The conference rooms and exhibition halls have excellent acoustics; lighting; indoor climate-control and multi-media facilities.

The event was organised by Great Southern Press. This company did a sterling job. They had plenty of staff on site, good security, excellent catering and impressive signage. On the one day I forgot my conference programme in the hotel room, but that was no problem at all. The programmes for the mornings and afternoons were on display on banners which were changed every so often.

I have only one gripe: I like to take home a complete set of conference papers on a CD, but that did not happen at this conference. Most of the papers are available however on the conference website. Some authors did not provide written texts of their papers, though. The papers are at:

http://nodigdownunder.com.au/pdfs/technical_papers.pdf

This web page shows a view of the conference programme. Clicking on a paper opens it. I have no idea how long this website will remain in place.

An impression of the conference locality in central Sydney. The complex stretching underneath the viaduct towards the bottom right of the picture is the Sydney Convention and Exhibition Centre.

The conference papers

The papers covered a wide spectrum of TT, from highly sophisticated, theoretical papers (most of those originating from eastern Asia) to down-to-earth, practical reports of projects. Amongst others, I enjoyed the following papers:-

- Apeldoorn, Steven. *The role of trenchless technology in the emergency recovery of the Kaiapoi wastewater network following the 2010 Canterbury earthquake*.
  This paper tells of a hectic period immediately after a 7,1 magnitude earthquake in New Zealand. The earthquake, which resulted in a 4,6 m horizontal and 1,5 m vertical offset in the ground level at the fault, as well as significant liquefaction of the plains' saturated unconfined soils, caused substantial damage to the wastewater infrastructure and blocked the networks.
  Trenchless technology played an important role in assisting the emergency response effort, in returning essential gravity sanitary pipe services to Kaiapoi and the district within six weeks. That took some doing!
- Frassinelli, Alfredo; Furlani, Benedetta. *Trenchless pipeline removal (TPR)*.
  We usually have the mindset that underground pipes are assets, to be treasured at all times. Apparently, in some instances there are exceptions. This paper tells how a steel pipeline can be removed. The TPR concept is based on abrasive waterjet cutting of the pipeline wall throughout the length to be removed. The cutting head, equipped with a nozzle, rotates during the operation to obtain a helical cut over the entire length of the pipeline. In the final phase, the pipeline with the helical cut can be pulled out using an HDD rig, while the bore is filled with expanded-clay pellets.
- Kuliczkowski, Andrzej; Skomorowski, Lech; Strużyński, Robert. *New possibilities for the trenchless application of CC-GRP products beneath railways*.
  A number of case studies demonstrated possibilities for applying centrifugally-cast glass-reinforced plastic (CC-GRP) pipes with diameters up to 2000 mm under railway tracks. GRP pipes met all requirements demanded of pipes installed beneath railway lines. Some of the features indicate their advantage over other pipes, which are heavier; prone to corrosion; susceptible to high temperatures; or not resistant to the effects of stray currents.
- Lindy-Wilkinson, Katja; Sorvisto, Joonas; Virtanen, Riitta. *Renovating small diameter drains inside buildings in Finland: challenging European and international practices*.
  The popularity of using CIPP-lining as the chosen repair method for drain renovation

inside buildings has rapidly increased in Finland. It is the only trenchless method considered technically acceptable by most industry experts. It is common practice in Finland for all private drains inside buildings to be rehabilitated simultaneously. Therefore CIPP-lining is offered for all drains, including kitchen and bathroom drains - as small as 50 mm dia. The paper describes the various work phases of a typical drain renovation for a Finnish apartment building.

- Stephenson, Matthew. *Ice pigging – a no-dig technique for cleaning pressurized pipes*. Ice pigging is a new pipe cleaning method that uses slush ice to remove biofilm and sediment from the inside of pressurised pipes. It can be used in drinking water networks to remove biofilm and reduce the incidence of discolouration events. It can also be applied to sewer rising mains to remove accumulated deposits to improve pumping efficiency. The ice can be inserted into pipes via existing fittings like fire hydrants. The moving ice plug even picks up objects like stones, just like glaciers scrape their substrates. The process carries little risk. In the event of an issue the ice will eventually melt.
- Van Thien Mai; Moore, Ian D; Hoult, Neil A. *Strength of deteriorated metal culverts*. Specimens of two corroded metal culverts were exhumed in Ontario, Canada and their remaining wall thickness was assessed. They were then buried in a buried-infrastructure test-pit at Queens University and load tested – the weakest one of the two up to its ultimate limit state. Comparisons between the experimental values and design calculations provided indications about what approaches are best suited to evaluate culvert stability.

The exhibition

This exhibition was fully sold out. It filled 7 000 square metres of exhibition space, right adjacent to the conference rooms.

And guess what: the first thing I spotted was Westrade Fairs's pamphlet promoting *No-Dig South Africa 2014* being distributed by Caroline Prescot and Paul Harwood to all the stand holders!

A number of stands drew my attention, such as:

- *Dial Before You Dig*.
  Dial Before You Dig is a free national referral service designed to prevent damage and disruption to pipe and cable networks in Australia. Dial Before You Dig acts as a single point of contact to receive information about underground networks at any excavation site. There is no need to contact the utility organisations individually. The utility organisations send the information directly to the enquirer. The service is also designed to protect excavators - even a back yard renovator, an individual tradesman or a commercial excavator. Enquirers can go online at *www.1100.com.au*, download an iPhone app or ring an Australian call centre. In New South Wales it is even a criminal offence to dig without consulting Dial Before You Dig!
- *Electro Scan*
  Electro Scan is an innovative technology for detecting leaks in all types of non-conductive underground pipes (such as clay, plastic, reinforced concrete and brick) measuring 75 to 200 mm dia. It uses an electric probe attached to a push rod. Using proprietary technology, variations of electricity flowing through the pipe wall, associated with distance measurements, are automatically transmitted to Electro Scan's smartphone application to record and display defect locations and their relative size. While electricity does not pass through non-metallic pipe walls, it will pass through any defect that can cause water leaks.

- *Hard Metal Industries (HMI)*
  This stand displayed a neat collection of drilling tools, much like you could see elsewhere. However, the man who was minding the stand started talking me after spotting my delegate tag with South Africa written on it. He turned out to be Donald Lovell who has strong connections to SASTT's corporate member Speciality Metals. Lovell left South Africa to start HMI, intending to stay for three years only. However, when it was time to return to South Africa, his children flatly refused. They like Australia. And he was not going to leave them behind either...
- Milliken Infrastructure Solutions
  This company, which operates out of Colorado in the USA produces a range of acid-resisting waterproof geopolymer mortars. These mortars come as a coating applied by brush, roller or trowel; or as a mortar applied by pouring, placing, trowelling, spraying, or centrifugal casting; or as a patch that expands into holes and cracks. The product consists mainly of post-industrial recycled materials. It should have lots of applications in the rehabilitation of tunnels, sewers and manholes.

Think Tank

The past chairman of the ISTT, Sam Ariaratnam, had invited me to serve on this panel discussion. The major topic of the think tank was whether or not the ISTT should be involved in the creation of ISO standards for trenchless technology. There was also a brief but dismissive discussion on the development of a cost model for various trenchless technologies. The session was chaired by Trevor Gosatti, chairman of the ASTT.

The panellists with me were:-

- Sam Ariaratnam, past chairman, ISTT
- Derek Choi, chairman, ISTT
- Dec Downey, Trenchless Opportunities
- Wim Elzink, Wavin Overseas BV
- Juan Carlos Guitierrez, Empresas Publicas de Medellin ESP, Colombia.

No doubt the next issue of *Trenchless International* will carry a report on the think tank.

Networking

As always, an event like this has oodles of opportunities for meeting and chatting with people you met previously or who have something about which they would like to talk to you.

In his opening address Derek Choi joked that he was happy to be in Australia again, because this was the place where he had never had a bad meal or drunk bad wine. When I ran into Choi a little later, I told him that Sam Ariaratnam had told me he would twist the former's arm to come to the *NDSA 2014*. He replied that nothing would keep him away from the *NDSA 2014*, whereupon I promised him that South African wines are anytime as good as the Aussie wines. He grinned happily: in Hong Kong he currently buys no other wines than South African!

Former ISTT chairman Ray Sterling remembered meeting Alaster Goyns and Johann Wessels. Although retired, he does a good deal of TT consulting and presenting TT masterclasses.

Gordon Combeer of Sekisui Rib Loc Australia beamed when recounting that he had accepted the ISTT Award for *Port Elizabeth goes trenchless* on behalf of Trenchless Technologies last year in Sao Paulo. Well, he had reason to be chuffed: his company was part of the winning team.

A personal perspective

What will always stay with me is the wonderful atmosphere of this conference and the pervading friendliness of every person in sight. But trenchless folks already know this. It always happens!

The board of SASTT had nominated me for election to the ESC of the ISTT. I cannot deny that this flattered me although, in the event, I was not elected. However, I had no reason to be upset. It was no shame to lose to the calibre of people who were elected.

In the various forums I attended, I made a point of putting the case of developing countries. I have an idea that Paulo Dequech of Brazil and I swung the vote for the *International No-Dig 2017* in favour of Medellin in Colombia which, like South Africa, is a developing country. There was one dissenting vote in favour of the competing location: Washington DC.

When I spoke at the think tank I advocated that affiliated TT societies in developing countries should have free access to construction standards resulting from the efforts of the ISTT. However, they should be allowed to adapt those standards for local circumstances and skills levels; pretty much what SASTT is currently doing with its SASTT standards.

After both sessions, people came to thank me for speaking up on those points.

During my career I have been sent to several international conferences, in addition to six International No-Digs. I still maintain that the No-Digs are far and away in a class of their own. Nothing comes anywhere near them.

What with jet lag and many late nights attending the social events, it is stressful and pretty hard work to attend an event of this nature. After all, you must bring back a report that makes sense and it must be worthwhile for SASTT!

It was a privilege to attend this No-Dig and I am grateful to the board of SASTT for delegating me to attend it. So far it was the highlight of the year.

A notable award for a member of SASTT

Nyeleti Consulting excels

In October this year corporate member Nyeleti Consulting won the *Onderneming van die Jaar* (enterprise of the year) award in the open division of an annual competition held by the Afrikaanse Handelsinstituut (Afrikaans chamber of commerce) and sponsored by Santam.

SASTT congratulates Abe Thela and his firm on this prestigious achievement. SASTT can be proud of having such very special members indeed!

Invitation to UKSTT annual awards dinner

Russell Fairhurst, the chairman of the United Kingdom Society for Trenchless Technology (UKSTT) recently wrote to SASTT and other TT societies to invite the chairman or president or any other representatives to attend the above prestige event, which will be held on 16 May 2014 at the Holiday Inn Hotel Birmingham. This evening highlights the best in industry in a number of categories including young engineer.

The president of SASTT, Mike King, responded that he was not planning on visiting the UK next year. *SASTT News* would, however, bring the invitation to the attention of its members.

The UKSTT wishes to invite anyone of our society to attend this event and are offering a preferential rate for delegations. It is felt that this could be tied into visits to key trenchless works in the UK and possibly to manufacturers of equipment and materials.

The UK has driven trenchless from an early age and is proud of this heritage. Fairhurst feels this provides a great insight of what the UKSTT is doing.

Should the opportunity be taken up by enough international delegates then it is hoped to tie the dinner into a technology transfer opportunity with an early evening networking event.

Fairhurst feels this helps build on the work of the ISTT and helps bring the world of trenchless together.

If any member of SASTT would like to attend the event, he or she should respond to the following address:

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