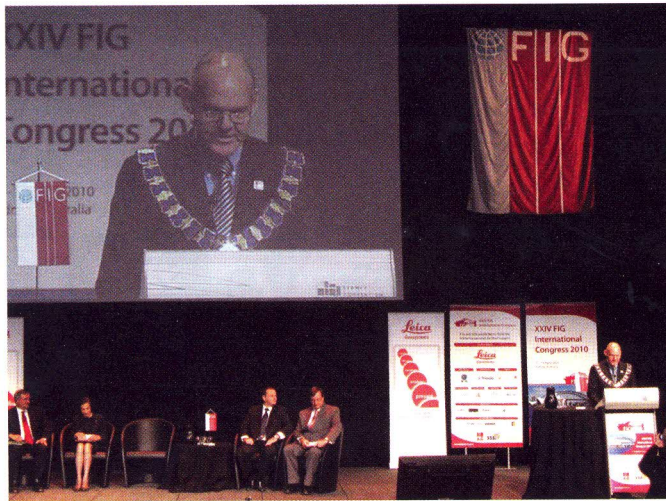


# Impressions of FIG Sydney: "Malaysia does the double"

By Alan Haugh

President Stig Enemark opens proceedings.



Apart from institutional delegations, few from the UK could afford the long and expensive trip.

**Alan Haugh**, who combined the visit with holiday, wonders whether it was all worthwhile.

The 2010 quadrennial gathering of surveyors from world wide took place during early April in the Conference Centre on Darling Harbour in Sydney. Sunny autumnal weather prevailed throughout and when the air conditioning got too chilly it was pleasant to escape outside into the touristy area surrounding the harbour.

The Congress was jointly hosted by FIG and the Australian Surveying and Spatial Sciences Institute (SSSI), the renamed Australian professional body for Survey and Geographical Information. It was claimed to be the biggest ever with 2000 registered attendees, though it has to be said that some 40% were Australian. Numbers from New Zealand, Morocco, Germany and the USA were well to the fore in the 94 countries represented and there was a huge contingent of over 100 from Nigeria.

A valiant handful of 28 from the UK had

made the long trip, with both RICS and ICES represented and voting in the General Assembly but otherwise having a very low-key presence. No Institution reception, as was enjoyed at the top of Melbourne's tallest building at the FIG Congress 16 years ago, and if ICES laid anything on they failed to invite all its attending members.

## No papers, no disc

Registration produced the usual Leica bag, a Congress programme book, the technical programme book and a well-presented souvenir commemorative history of Crown Plans. But no papers, printed or on disc (not even extracts) – only advice at the desk that papers would be published on the web after the Congress. Some may have been available then but without computer and web access were not accessible.

So, apart from the four plenary sessions – one each day – one had to make one's choice of what technical sessions to attend from titles and authors only. And with 10-12 parallel or simultaneous sessions over three days, some commissions even having parallel sessions, and with technical tours being run each afternoon at the same time, the choice was problematical. Add the fact that some one-hour sessions could have 7 papers yet other one and a half hour sessions might have only three or four, and this part of the conference participation became for your reviewer somewhat of a largely pot-luck exercise.

By this time one did not wish to think of the cost of attendance, particularly in the light of our slumped pound, but for this attendee it was clearly not worth the expense or the effort in getting there had it not been to spend a holiday in Australia and Singapore or other stop off point, and treat the conference as a casual though costly diversionary interlude.

The exhibition was housed in one of the five vast exhibition halls adjacent to the Conference centre and was also the venue for morning coffee, afternoon tea and an included daily buffet lunch with hot dish for the four days of the exhibition, though not on the fifth after the exhibition had closed.

Though the big four – Leica, ESRI, Topcon and Trimble were well to the fore with prominent stands – perhaps the size of the hall made the total exhibition appear smaller than in previous congresses and mostly Australian oriented. It was certainly a good deal smaller than the Munich



had been damaged by the flooding. Drinking water is drawn up from wells and they are extremely important in a region where water is scarce. The position of damaged wells and other infrastructure were recorded by the teams using GPS. Agadez lies downstream of a mountain range and the flooding inundated wells, flooded farmland and destroyed mud walled homes.

Back in the office the teams downloaded their GPS data to Google Earth. For the staff it was extremely interesting for them to see satellite imagery of their local area; and to put into context the results which they had captured in the field. This was the first time any of the staff had used such software and it was a real eye-opener for them. The first thing many of our trainees did was to search for their house!

**Knowledge transfer**

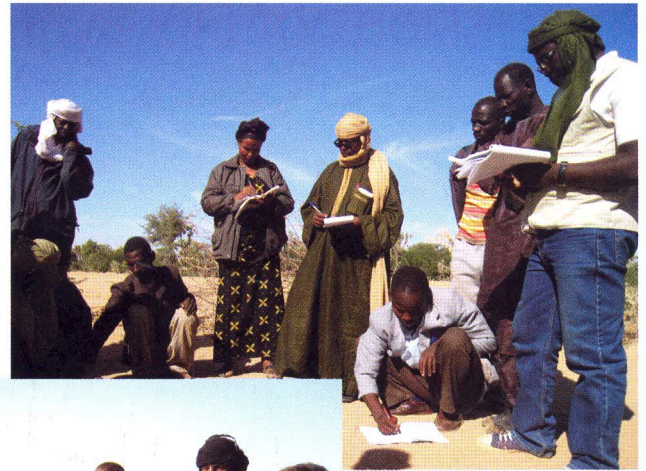
The GPS skills, which are now with AIP Takkeyt, will enable them to collect geographic information in the work they do. This work will feed into the work Oxfam GB conduct on a national level and help to distribute aid to those in need more effectively. In all, the mission to Niger was successful for all concerned. We imparted our knowledge of GIS and GPS to keen people and made some friends along the way. For the local staff the sessions were very interesting. The staff will apply their new geographical skills on a day-to-day basis to help map the needs of local communities and those most in need.

**Why do it?**

Our work in Niger has two distinct benefits:

1. To enable Oxfam and its partner staff to produce community and local level maps. These maps are fundamental in planning and responding to disasters because they enable multiple levels of detail to be assessed quickly.
2. On a broader scale, our trip also engaged with research organisations to produce regional (macro) scale maps that can improve planning and collaboration between humanitarian and development agencies. Mapping remains an important tool and MapAction enables field programmes to capture important local level data.

*Community mapping in the field in Agadez, Niger Source: MapAction*

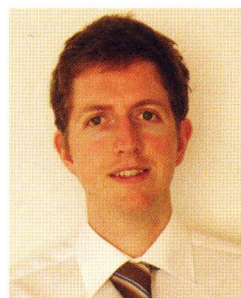


*Training with the team from AIP Takkeyt (Oxfam GB local partners) in Agadez, Niger (Chris Ewing on the right). Source: MapAction.*

In the future, Oxfam and Water Aid plan to take forward this initiative to other countries across West Africa and use water resource management at a local level to help communities in need of water and sanitation. Through the initiative (and the training in GPS and GIS by MapAction) communities will be able to better plan and map their available water resources.

**About the author**

Chris Ewing is an enthusiastic geospatial professional who volunteers for MapAction.



With the charity, Chris has attended natural disasters in Bolivia and Jamaica and travelled on training missions to Niger and Lesotho. He works for Halcrow Group Ltd and is involved in a number of key geospatial projects.

*“This was the first time any of the staff had used such software. . .”*

**About MapAction, the disaster mapping charity**

MapAction provides situation mapping and information management support in disaster zones. As well as responding to natural disasters, MapAction also supports local and international non-government organisations in developing countries.

In a humanitarian crisis, relief agencies need rapid answers to questions about “where”. MapAction helps to answer these questions:

- Where has the disaster impacted?
- Where are the greatest needs?
- Where are the affected people?
- Where are the gaps that need to be filled?
- Where are other relief teams working?

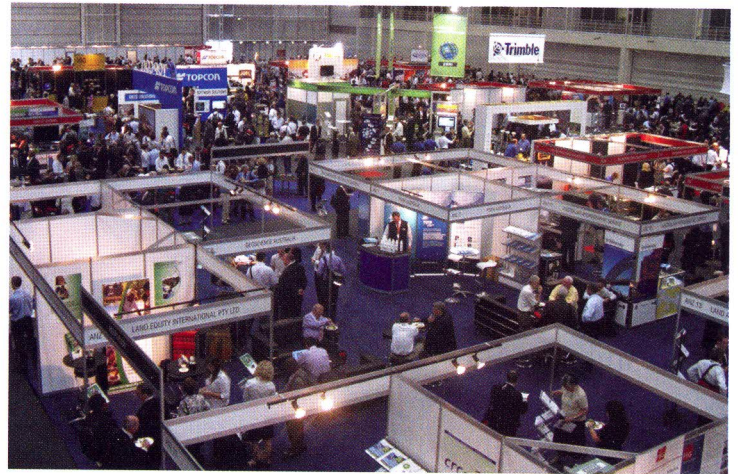
*Source: MapAction.*

display though of course that included the Intergeo.

Instrumental emphasis was, as usual, on assorted GPS, total stations and laser scanning devices, two or three units of the latter now often vehicle mounted along with GPS so that every detail is now surveyed to high accuracy with one pass along the road. It was noteworthy that one of the most patronised stands was one displaying and selling opal stones!

The Welcome reception on the Sunday evening was held in Sydney's historic Town Hall on George Street with a brief but impressive recital on the magnificent organ. The opening ceremony the following morning, which took place in the huge semi-circular auditorium of the Conference centre, was opened by an ash-painted aborigine blowing his didgeridoo and making a gracious introductory speech. It was followed by a series of formal speeches, welcomes by the SSSI President, the Australian Minister of Lands, and FIG President **Stig Enemark**, and then the Governor of New South Wales, Professor **Marie Bashir**. She spoke about one **James Meehan**, an Irish political prisoner deported to Australia in 1800 aged 26, who made good as a pioneering surveyor in NSW and Tasmania, who was to be honoured at last by having a new statue, on display in the exhibition, placed in the Department of Lands.

The Keynote address, which followed was by Professor **Tim Flannery** who spoke in a humorous but telling vein about the effects that climate change would have on Australia and elsewhere. For your reviewer this was one of the highlights of the Congress, others being Google's **Ed Parson's** down-to-earth talk on Google's objectives and methods at one of the plenary sessions, and the hugely popular standing-room only single session on the History of Surveying in Australia. (There had been a two-day pre Congress workshop on the History of Surveying but only one session was available in the Congress proper – see *GW May/June 2010 for a fuller report*. Ed). Of course there may well have been other bright spots but with such an overfull programme one hadn't a hope of taking them all in. Most



of the papers are now available in .pdf format at [www.fig.net/pub/fig2010/techprog.htm](http://www.fig.net/pub/fig2010/techprog.htm) though some are not and others are only in abstract.

At the final General Assembly Malaysia did indeed do the double. Council Member **Teo Chee Hai** defeated the UK's **Iain Greenway**, eliminated on the first ballot, and favourite **Matt Higgins** of Australia by one vote to become the new President. Then Kuala Lumpur was chosen as the next 2014 Congress venue over Istanbul, Malaysia's holiday oriented publicity material proving more successful than the Istanbul's stand's active PR.

**Too much, too expensive**

In summary this was a very enjoyable but hugely expensive conference in an excellent venue, but far too much was packed into the five days. Perhaps future organisers need to be much more selective in the choice of papers to be presented and if commission specialisations are to continue and mean anything, there needs to be a clearer division between their programmes, rather than, as at this Congress, grouping papers according to topic and then attaching to each set the Commission numbers which were relevant.

• *GW is indebted to editorial board member for this report. We were unable to attend FIG Sydney this time due to cost implications.*

*“Perhaps future organisers need to be much more selective in the choice of papers to be presented...”*



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# CRC could boost demand for measured building surveyors

By Richard Groom

It is always interesting to hear where Autodesk sees the CAD and GI market going and this year's press day was no disappointment, reports **Richard Groom**.

**A**utodesk dominates the market for a range of software from its core AutoCAD product, CAD for architecture and civil engineering, GI, games and movies. With its 2011 series of products they aim to promote interoperability and synergy across the applications. In particular, the technology from the games and movies applications has been filtering down to the design products.

## Infrastructure meets AEC

In the past year Autodesk has merged its infrastructure business centre, the home of its AutoCAD Map product, with AEC (Architecture, Engineering and Construction). It is the market leader in AEC and Map is seen as a valuable support to this core business that includes the information management package Revit and Civil3D packages.

Building Information Modelling (BIM) is, Autodesk believes, at the point in the software development cycle where it is now widely recognised as practical and starting to be adopted enthusiastically by the market. The company has recognised that building modelling includes the area around the building and so the term now has a wider meaning than implied.

## Integrated Project Delivery

This year Autodesk introduced a new term – Integrated Project Delivery (IPD). IPD is intended to get all the people working on a project to work together. It sounds like partnering but takes the concept further because each organisation involved in the project takes a financial stake, so it is more like a project consortium. Autodesk has produced a white paper on setting up an IPD contract that can be downloaded from their website. Indeed they even used the concept for the redevelopment

of their AEC headquarters building.

BIM is the focal point of activities. All project design information is developed within the BIM, stored once and used by all partners in the project. The advantages of using a single model are clear. Every partner uses the same data, changes ripple through the whole design and there is a high level of consistency. The BIM can be as detailed as necessary but there comes a point where the benefits of additional detail are outweighed by the costs. More of the analysis that goes with the modelling is now within the Autodesk modules and there is less need to export to other packages.

In the 2011 software there is more capability to run simulations. BIM can be seen as a phased development of CAD: initially models, objects and collaborations and, in its ultimate form, as integrated interoperable data. Autodesk emphasise that visualisation is now a lot more than just visual impact. What-if scenarios can be tested and designs can be optimised by the software using preset parameters. Indeed the behaviour of a building can be simulated for its lifetime including demolition.

## Carbon Reduction Commitment

The UK has an ambitious programme to reduce carbon dioxide emissions. Buildings are serious CO2 emitters and there is now a concerted effort to improve energy efficiency under the Carbon Reduction Commitment (CRC). By 2019 it will be a requirement for all public buildings to produce more energy than they consume. If this is to be achieved, there will have to be massive activity to improve insulation and energy efficiency and to install renewable energy on the existing building stock. These buildings will of course require survey.

It was heartening to hear speakers from Scott

Wilson make the point that quality surveying is the basis for a BIM.

However they also bemoaned the difficulty they have in getting clients to pay for survey. They are not alone. Scott Wilson is also developing a dual-grid facility so that the building model can be related to the national grid and the building grid. Scott Wilson has found that there is a reluctance on the part of clients to own the BIM so there is clearly a need to educate them in the value of developing and maintaining quality as-built data for managing facilities.

At first sight it might appear that using BIMs for facilities management would lock the client

The imported surface in 3ds Max Design before (below) and after (right) assigning the draped orthophoto.

