



FIG working week 2008: Stockholm

Alan Wright FlntCES with Gethin Roberts MInstCES, Richard Otto MInstCES, Diane Dumashie FRICS and Andrew Morley FlntCES

OVER 870 DELEGATES from 84 different countries attended the FIG working week in Stockholm from 14–19 June 2008; making it the biggest ever.

The general assembly meetings, that open and close the working week, provided opportunities for a review of the achievements of FIG during the past year and for the election of two new vice presidents and new chairs elect for eight of the ten commissions. These new positions take effect on 1 January 2009. Congratulations go to Iain Greenway of RICS and Teo CheeHai of the Association of Authorised Land Surveyors Malaysia (PEJUTA) on their vice presidencies, and to all eight commission chair elects, but especially ICES member Gethin Roberts of Commission 6 and RICS member Frances Plimmer of Commission 9.

UN-HABITAT

Running alongside the FIG working week, was a joint FIG/UN-HABITAT seminar on improving slum conditions through innovative financing. UN-HABITAT is the United Nation's Human Settlements Programme and the session looked at the challenges and approaches that suit the poor; for example intermediate forms of title, gender sensitive title and incremental finance. The outcome of this integrated seminar will be forwarded to the 4th World Urban Forum in China this November.

In her keynote address, Dr Anna Tibaijuka, UN under secretary general and executive director of UN-HABITAT, reminded the audience that the world is becoming more urban and the challenge is to try to guide this urbanisation process. Dr Tibaijuka also announced that UN-HABITAT has a two-year agreement with Google to collaborate on new mapping tools.

FIG president Stig Enemark's opening speech reflected on how the millennium development goals (MDG) highlight the need to deliver global partnerships to manage finite resources. Essentially, this requires promoting societal partnerships. This theme was also emphasised by Malcolm Childress of the World Bank in an important and highly influential contribution that provided a new view of world population growth, the challenge of urbanisation and the links to the second global force – climate change.

In his closing address, Stig Enemark repeated that FIG is strongly committed to the MDGs and UN-HABITAT's global land tool network – the pro-poor land policy programme. He concluded that surveyors must continue to develop innovative and transitional solutions to address global inequality in land and property ownership and tenure. Surveyors must act as professional facilitators



Dr Anna Tibaijuka, UN under secretary general and executive director of UN-HABITAT.

and continue to provide the underlying data to enable monitoring and support decision making for sustainable development.

Technical sessions

As reported by Mike Sutton in last month's CES, there was a pre-conference workshop held in Stockholm on the history of surveying. This comprised two days of historical papers, including a video presented by Jyrki Järvinen (Finland) showing how land surveys used to be conducted before the advent of EDM, EODM, computers, GNSS and laser scanners.

There were 340 technical papers from the 10 FIG commissions. Each of the three days of technical papers was introduced by a plenary session; the most outstanding of these came from David Zilkoski, director of the USA's National Oceanic and Atmospheric Administration (NOAA) Geodetic Survey. It was an inspiring presentation.

Commission 1: Professional standards and practice

Commission 1 crosses all survey disciplines and coordinates FIG's standardisation activity. A key recent development in this field is the submission of the Land Administration Domain Model developed by FIG, with input from UN-HABITAT, to ISO to progress to an international standard.

Much discussion during the Commission 1 technical sessions centred on licensing arrangements for surveyors in different countries around the world, with presentations from Ghana, Norway, Malaysia, New Zealand, France and Italy. It was agreed that Commission 1 could play a valuable role in bringing material together from around the world. In Malaysia, for



Mamma Mia! The musical corps of the Dagoon's Battalion of the Royal Guards, who performed at the opening ceremony.



Gethin Roberts MInstCES will shortly become chair of FIG Commission 6.

instance, they have recently introduced a disciplinary mechanism that excludes the right for the accused to appear before the disciplinary board; all discussion is by correspondence. They are also in the process of withdrawing the right to appeal to the courts.

Commission 2: Professional Education

The commission's current workplan includes plans to investigate the use of information and communication technology to support professional education and to organise summer schools for young surveying professionals.

The commission is also planning a workshop on educational management and marketing for March 2009 in Vienna.

Commission 3: Spatial information management

Spatial information management continues to be one of the fundamental areas, which underpins the work of land professionals worldwide. Activities during the working week included active participation in the FIG/UN-HABITAT seminars and sessions on spatial data infrastructures (SDIs), NSDIs and e-government, GIS algorithms, applications and techniques and environmental management.

The current focus of the commission is how spatial information management relates to mega cities. This takes the form of specific workshops, which will be brought together in 2010 at the FIG congress in Sydney. The next workshop is planned for 2-4 February 2009 in Mainz, Germany.

Commission 4: Hydrography

The attendance at Commission 4 sessions in Stockholm was relatively small, with delegates from various countries including Sweden, Nigeria, Trinidad and Tobago, Canada, UK, Monaco, Finland, Poland and Malaysia. Recent work the commission has been involved in has included issuing a pamphlet after the Costa Rica working week regarding the management of coastal zone areas and creating pro-poor initiatives.

Two excellent papers that stood out this week were one on coastal zone administration – which looked at just how important this region of our land is; 60% of the world's major conurbations lie within 100km of the coast but this region is only responsible for 37% of the GDP, and one on hydrographic data management, which raised the issues of new technology and good data management.

Other sessions included a paper from Nigeria illustrating the power and flexibility of GPS for creating a control framework in support of asset management for offshore structures, a paper from Finland on vertical reference frames and their harmonisation in the Baltic Sea, current research by Hamburg University on sensor systems and motion reference units, and a paper from New Zealand on work to transfer a vertical datum using a water borne GPS receiver.

Commission 5: Positioning and measurement

During the working week, there were many technical sessions on positioning and measurement, but the one recurring theme was interoperability of equipment and traceable standards.

One of the most popular sessions was on GNSS standards. Here David Martin of ESRF France and Hans Heister of the German Institute of Geodesy spoke about the latest GNSS ISO standards (ISO 17123-8) and procedures for simple and full RTK test procedures. These procedures are relevant for single base/rover RTK setup, but are not yet proven for NRTK, however, this should not be difficult to approve. Other presentations covered the legal requirements of network RTK and the need for real time positioning guidelines.

TSA network RTK best practice guidance

A debate was held at the working week explaining The Survey Association's (TSA) initiative to produce generic network RTK best practice guidance. Neil Ackroyd from Ordnance Survey pitched in with a controversial comment on how slow FIG has been to produce basic guidance to users – and that the same debate has been going on for several years! Neil also spoke about the offshore industry, which for many years has been using integrity monitoring software for quality control of GNSS measurements, and that this should be imported into land survey equipment.

Since returning from FIG, a meeting took place at Newcastle University about UK network RTK best practice guidance. The stakeholders in this initiative are TSA, Ordnance Survey, Leica Geosystems and Trimble, with Newcastle University as the main research body. Further to the working week, FIG is now very keen to see the final user best practice guidance, in order to use it as an example for developing global NRTK standards. The stakeholders will also be investigating the integration of the new ISO 17123-8 for GNSS field measurements.

Commission 6: Engineering surveys

Commission 6 works closely with Commission 5 and sessions at the working week looked at real time GNSS CORS networks from around the world, as well as new positioning technologies. This highlighted the extent to which this technology is currently being used. One of the key speakers was from Nokia – it seems that Nokia won't only be the biggest manufacturer of phones in the future, but also GNSS



ICES delegates at FIG. L-r: President Mike Sutton FInstCES, Richard Otto MInstCES, Alan Wright FInstCES, Andrew Morley FInstCES, Richard Hucker FInstCES and Commission 10 administrator Shirly Bithel.



Commission 10 delegates. L-r: Ben Chong of the Hong Kong Institute of Surveyors, Andrew Morley FlntCES, Geoff Schmitt FlntCES and Francis Leung of HKIS.

receivers. It was also hinted that perhaps within the next decade, such mobile phone technology would be able to position to better than 1m, and possibly at the decimetre level.

Commission 7: Cadastre and land management

A wide variety of topics was examined at the Commission 7 sessions. This included developments of the land administration domain model, land consolidation in Scandinavia, Eastern Europe and Turkey, the role of land administration in sustainable development, recording multiple land rights where vertical partitioning is not the norm and 3D cadastres.

The main points from Commission 7's joint sessions with UN-HABITAT were that over half the world's population is now considered to be urban, rather than rural, dwellers and over 1 billion people live in slums.

Future activities include an annual meeting in Verona, Italy from 11-15 September 2008, which will look at the impact of major construction works on territory and state and public land management.

Commission 8: Spatial planning and development

Debate during Commission 8 technical sessions regularly highlighted that land professionals have the technical capacity to manage the emerging problems of the day. Sessions discussed the surveyor's responsibility to act as change agents – it is the surveyor who drives forward complex projects, translating the technical to the pragmatic.

The commission has been looking at the supply of land and the speed at which new informal settlements are growing in third world countries. The launch of the joint commission report *Informal settlements: Driving toward change* (publication #43) complemented the parallel UN-HABITAT workshop.

Another report launched by the commission was a joint one with Commission 4 on pro-poor coastal zone management following the FIG regional conference in Costa Rica last November.

Commission 9: Valuation and the management of real estate

Commission 9 had a very successful week, with 36 papers presented over seven sessions. The themes of the sessions were on property taxation, compulsory purchase and compensation, tools and methods of land valuation, the interaction between land valuation and spatial planning, real estate management and GIS.

Future FIG events will build on the increasing popularity and importance of Commission 9 and the agenda looks set to ensure

an exchange of ideas and debates which will continue to support the effective solution of a range of fundamental global problems.

Commission 10: Construction economics and management

The commission's annual meeting was attended by officers and delegates from countries as diverse as the Czech Republic, Ghana, Hong Kong SAR and Sweden. Progress during the year had been less than hoped for, due to the business commitments of the principals, but it was encouraging that the commission held three technical sessions. Cooperation with the European Committee of Construction Economists (CEEC) has continued and one of the papers was given by Martin Wright from CEEC, on the topic of the CEEC code of cost planning.

Working group 10.1, chaired by Sara Wilkinson (RICS), has worked on some projects for FIG; this and other work will be reported in the Commission 10 quarterly newsletter. In working group 10.2, led by acting chairman Geoff Schmitt FlntCES, the focus has continued to be on the financing of projects using either the private finance initiative or public private partnership (PFI/PPP) models which are both used widely in the UK. Working group 10.3, chaired by Richard Hucker MBE FlntCES, continues to look at different project management examples and relate these to best practice. The group is planning to produce a publication by 2010 which would illustrate examples of best practice.

The relationship between FIG and the International Cost Engineering Council (ICEC) has been strengthened; there are similarities in their roles of global representation. FIG strongly interacts with UN agencies (UN-Habitat, World Bank etc), NGOs and similar institutions and academia, as well as practitioners in both public and private practice; ICEC member associations are from many disciplines other than surveying and most of the individual members are practitioners in commercial companies and private practice. Andrew Morley, Commission 10 chairman, and Mr Osei-Asante of Ghana met to discuss ideas for involving African QS associations and achieving some outcomes from the FIG/ICEC memorandum of understanding. This has since been built on after Andrew Morley met colleagues from the African Association of Quantity Surveyors and other members of the ICEC council during its biennial meeting in Toronto.

Over 30 participants attended an open session on project management led by Richard Hucker. Richard gave a brief outline of project management and the important issues relating to it; explaining the definition as a fixed (usually, short) life exercise to create a unique process by scale and cost. The skills are used by all FIG members and not just commercial managers/quantity surveyors/construction economists. Many projects do not achieve their clients' objectives and, worldwide, approximately 50% of major corporate global projects, such as mergers and IT systems, fail to achieve their time, cost or quality objectives. Project management should learn from, and build on, skills used by successful projects to reduce the risk of failure to meet all objectives.

During a lively discussion, it was observed that a risk schedule and analysis at the start of a project, and reassessment of it at regular intervals throughout, was a minimum for best practice. Also an engineering surveyor remarked on the applicability of the discipline of project management across all of the branches of surveying represented in FIG!

The first construction economics session heard papers presented on the recruitment and retention of staff and knowledge, the changing face of dispute resolution and the EU-recognised CEEC code of cost planning (which takes into consideration whole life/environmental issues but the model has yet to be populated). The papers led to many questions and discussions, including the need to capture and share information and knowledge gained during a project to show that staff were listened to, how staff aspirations change with age and the benefits needed to change with them, how fluctuation in staff levels affects personnel retention (could staff turnover stabilise if inducements such as training are offered?), competent teams can be lost due to

fluctuation of work levels and, in the public sector, changes can be influenced by privatisation and/or externalisation and the introduction of new knowledge and experiences.

Mr Chung, from Hong Kong SAR, advised that for the last 10 years Hong Kong has employed dispute resolution advisors at the start of projects; they have regular on site contact and the arrangement is successful. In the last 10 years, only two cases have gone to arbitration. The point was raised that it appears that more time is spent discussing and agreeing the contract than actually carrying out the project! This could appear to be the case but, hopefully, moving on to the use of mediation and dispute review panel systems may help to improve the situation.

ICES president Mike Sutton gave a paper on organised crime involvement in the UK muckaway and disposal process. It was considered incomprehensible that waste is dumped and that offenders are rarely imprisoned; generally, fines are not proportionate to the profit made, which could run into millions.

Yoav Collier, from Israel, gave a paper on the importance of the surveyor and advantages to the economy; addressing the need for land registration for ordered development and construction work.

ICES fellow Howard Klein's paper, 'Somewhere in Time – Securing and Protecting your Contractual Rights', appeared in the July/August issue of CES [pp19-22].

There was lengthy discussion on the need to increase the number of national delegates and other participants to Commission 10 and widen involvement in, and awareness of, its activities. Delegates and other participants may be active contributors or simply observers and all contributions may be made electronically. Every member association of FIG is entitled to nominate a delegate to each of the ten commissions and the

chairman asked that all take every opportunity to highlight this to FIG non-Commission 10 colleagues. Member associations could provide active contributors on the basis of regional representation, for example colleagues from the African continent have common interests, and it would benefit the commission's work if those interests were represented.

And finally...

Further general highlights from the working week included a welcome reception from the Lord Mayor of Stockholm in the 90-year old Stockholm Town Hall, complete with a guided tour of the 'Gold Room', where the walls are covered with 18 million small tiles of gold and glass.

A mention also has to be given to the musical corps of the Dragoon's Battalion of the Royal Guards, who entertained us at the opening ceremony with rousing melodies from ABBA and a new arrangement of the FIG fanfare.

A programme of technical visits took in the Stockholm City Surveying Department, Trimble AB at Danderyd, National Land Survey and Swedesurvey at Gävle and the Swedish Maritime Administration at Södertälje. Social events included dinners at the Vasa Museum and the Grand Hotel at the Water Garden.

Thanks must be given to the FIG team, to the organising committee and to the sponsors who worked hard to make this the successful event that we all enjoyed.

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All papers are available on the FIG website:
www.fig.net/pub/fig2008

Advertorial

Record Greenhatch Group order goes to SCCS

THE Greenhatch Group, who has developed a wide range of expertise in all areas of geomatics, has chosen SCCS as its first choice supplier of survey equipment. With the recent purchase of 17 Leica TPS1200+ total stations, 5 smart rovers and HDS6000 scanner, this is believed to be the largest single order from a private land survey company in the UK for more than a decade.

The purchase will help the Greenhatch Group in its pursuit to be the leading UK geomatics company in terms of range of services quality and reliability of the final deliverable. With the development within the group of three main areas; measured building surveys headed by managing director Robert Page, land survey headed by managing director Neil Jefferies and the HDS department headed by managing director Andrew Dodson, the Greenhatch Group has recently been rewarded for its efforts with a number of prestigious contracts in all three disciplines. In particular, the three year framework agreement with the English Heritage Metric Survey Department for measured building and topographical surveys which involves all departments.

Chris Sharrocks, group chairman, said: "With this latest purchase, we are confident of our goal of developing our business model into the European market, without losing our focus on the considerable client base in the UK which we have been developing over the past 25 years. Clearly this takes a lot of effort from the whole of our business and business partners. With the benefit of the personal, technical and logistical support from SCCS and our long term committed staff and directors, we see no reason why the group cannot achieve our mid term goal of continual steady growth over the next five years with a doubling of turnover."



Paul MacArthur (left), MD of SCCS, and Chris Sharrocks, Greenhatch Group chairman, shake on the deal which will give Greenhatch Group directors (top) the tools to help continue the company's rapid growth.

With the strategic planning of survey offices throughout the country and the recent acquisition of a new base in the South East, it would take a brave person to bet against the Greenhatch Group's goal.

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