International Federation of Surveyors Fédération Internationale des Géomètres Internationale Vereinigung der Vermessungsingenieure



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Handover Ceremony - Münster, Germany in December 2006



German Council: T. N. Wong, Thomas Gollwitzer, Holger Magel, Stig Enemark, Andreas Drees and Ralf Schroth at the handover ceremony in Münster.

President Holger Magel hands the chain of office over to Stig Enemark

The historical FIG handover ceremony took place in the historical city hall of Münster 2 December 2006. The German Council left leadership of the FIG and handed it over to an international team of individuals elected by the FIG General Assembly – after a 128 year tradition of country based Council administration – a milestone for FIG.

The mayor of Münster, Ms. Beate Vilhjamsson, welcomed more than 40 invited representatives from FIG, DVW (German Association for Geodesy, Geo-Information and Land Management), the host of FIG Council for the previous four years, and German agencies in the Friedensaal (Hall of Piece) - a famous place because of the treaty of 1648 that ended the 30-years lasting war. Mr. Hagen Graeff, DVW President reminded in his address that the German Council has brought new spirit into FIG and that the German FIG Presidency has especially made a special contribution on political activities. Mr. Graeff handed over a cheque representing a value of €20,000 for the FIG Foundation as result from the FIG Congress in Munich.

Leaving FIG President Prof. Holger Magel



The handing the President's chain of office from President Holger Magel to the new President, Prof. Stig Enemark. The two presidents were assisted by President Hagen Graeff, DVW.

mentioned in his speech Changing FIG - Model for a Changing World that inauguration in the surrounding of the Hall of Peace in Münster is a special symbolic sign for the new leadership: the FIG community of idealists and volunteers has dedicated itself to worldwide peace through numerous contributions in the field of land, water and coastal management. As surveyors, with our "boots on the pavement" on site with our clients we know that ultimately it is a matter of not only doing our duty but always doing more. This ethos makes FIG so valuable for the world and world organizations as the UN authorities, the World Bank and for member associations. The German Council set itself ambitious aims, as to exercise intellectual leadership concerning the role and identity of surveyors, to continue the FIG re-organisation, to generate more income, to increase substantially membership of FIG, to promote a professional of outcome and results of FIG meetings, to increase co-operation with the United Nations, to increase co-operation with sister organisations, to give greater presence on spot in the regions, and to acquaint young persons. If the FIG did not already exist, it would be urgently necessary to found it!

In the name of all members of the FIG Council Prof. Magel stated that the FIG years were strenuous but at the same time wonderful. He expressed words of thanks to DVW, FIG members and his team in the Council: Dr. Andreas Drees, Dr. Ralf Schroth, T.N. Wong, Ken Allred, Stig Enemark and Thomas Gollwitzer as well as to Matt Higgins (2005–2006) and Gerhard Muggenhuber (2003–2004) as the ACCO representative in the Council. He wished the new Council success in its responsibility in favour of FIG, the mother of all surveying engineers and surveying.

In a real "laudatio" the FIG Honorary President Prof. **Peter Dale** gave a reflection on the German presidency. He observed that President Magel and his team steered FIG through

a difficult period of transition. There was a significant growth in membership and activities of FIG. In what way is FIG value for money? Prof. Dale would talk about globalisation, networking, learning from others struggling with the same problems, friendship and about how the more that you put in it the more you will get out. In a world that is changing quickly all these things remain true. There is no other organisation that addresses land issues in a manner and with the breadth that FIG achieves.

Then the handover of the chain of office from Holger Magel to Stig Enemark took place with the assistance by Hagen Graeff. The new members of the Council were introduced: Dr. **Dalal S. Alnaggar**, Prof. **Paul van der Molen** and Dr. **Chryssy Potsiou** as the ACCO representative. The two remaining members of the new Council Ken Allred and Matt Higgins were not able to attend the ceremony because of problems with their travels.

In his speech President Enemark expressed that it is a great honour to wear the traditional chain of office. He was happy with the presence of two FIG Honorary Presidents: Peter Dale from UK and **Robert W. Foster** from USA at the ceremony. The foundation to start is solid and the view is good. He thanked Holger Magel for his eminent leadership. The role of the FIG Council will now change to a global scope. He is happy to continue the work started by previous Councils and even broaden it, especially in relation to the World Bank.

The meeting was closed with a reception with an address by Prof. **Joachim Thomas**, Head of the Higher Land Consolidation Authority Münster.



Entrance to the Hall of Piece (Friedensaal) at the Münster City Hall.

Greeting from the President

by Prof. Stig Enemark, President of the International Federations of Surveyors



The International Federation of Surveyors has during the past few years gone through the biggest changes in its history. The FIG administration has changed from a country-based council to a truly global organisation with an international council of individuals elected by the General Assembly. We have developed FIG from a body that was focussing mainly on organising conferences to an active player on the global level when discussing surveying related activities and being the only organisation covering all surveying disciplines.

The advanced FIG agenda includes a close and very active co-operation with the United Nations - including the World Bank - on implementing the Millennium Development Goals (MDGs). Naturally, capacity building activities such as congresses and working weeks still belong to our core activities, but we have managed to achieve more. The Federation has grown to an internationally respected advisor through our statements and publications by using modern communication technology and by providing a network of experts. Building the Capacity is therefore a carefully selected motto for the current term of office. I am happy to be in lead of the first fully global Council in the FIG history. As FIG celebrates its 130th Anniversary this year, I am proud to say that we have built an excellent basement to develop our activities and to implement the ambitious agenda that was endorsed by the General Assembly at its meeting in Hong Kong in May 2007.

This Annual Review covers the past eighteen months of FIG activities including the FIG Congress in Munich and the handover ceremony in Münster in 2006, as well as reports from numerous conferences and other activities that

have taken place during the first year of the new administration. The highlights of year 2007 were the Working Week in Hong Kong SAR and the 6th Regional Conference in Costa Rica, and some commissions have arranged high level international seminars. Several visits to regional and national events and member associations have given me a good picture of the surveying profession world-wide. I can state that we share in most cases same traditions and face similar problems. We can learn a lot from each other.

It is my great pleasure to express our sincere thanks from the Council and the international surveying community to Professor Holger Magel and his team for the outstanding work that they made during the German administration of FIG. I here quote to the speech of our Honorary President Peter Dale at the handover ceremony in Münster: "Holger and his team steered FIG trough a difficult period of transition gaining a significant growth in membership and activities of FIG. There is no other organisation that addresses land - and marine - issues in a manner and with the breadth that FIG achieves. FIG has not only a great history but also has understanding of the present and a vision for the future." So I recognise that I am standing on the "shoulders of giants".

The General Assembly adopted the work plan of the Council and all Commissions in Hong Kong. The main topics on the agenda are: Promoting and enhancing the role of FIG; continuing and enhancing the dialogue with member associations; promoting FIG as a truly global organization; and responding to the Millennium Development Goals.

The Council has actively started to implement the work plan by developing an ambitious action plan. Here I would like to highlight only a few issues: FIG has taken many steps forward with the United Nations especially in relation to implementing the MDGs. FIG is a major partner to UN-Habitat in support of the Global Land Tool Network; we organise a joint seminar with UN-Habitat on Slum Upgrading and the Importance of Financial Mechanisms as part of the Working Week programme in Stockholm, June 2008; and the close cooperation with the World Bank will result in an expert group meeting in Washington DC in November 2008. We have also increased our co-operation with FAO and other UN agencies with joint seminars and other events.

It is crucial to make sure that member associations, other members and individual surveyors benefit from our global activities and from the work of the technical commissions. This should be enhanced through an increased dialogue with member associations with a focus on explaining the relevance and importance of global activities as a basis for developing the

capacity and societal status of surveyors at national and local levels.

Therefore, at the top of the agenda, FIG will continually provide a global forum for discussion and exchange of experiences and new developments between member countries and individual professionals in the broad areas of surveying and mapping, spatial information management, and land management. This relates to FIG annual conferences, regional conferences, and the work of the ten technical commissions within their working groups and commission seminars. The Council will also ensure that this global forum offers opportunities to take part in the development of all aspects of surveying practice and the various disciplines including ethics, standards, education and training, and the total range of professional areas.

In the field of capacity building the Council will provide institutional support to individual member countries or regions with regard to developing the basic capacity for meeting the challenges of the future in terms of educational programmes, professional organizations, and surveying institutions.

Our next big effort will be the Working Week in Stockholm 14–19 June 2008 under theme Integrating Generations. This is a crucial issue for all professions and especially for surveyors. We need to find ways to attract new students, educate young surveyors, and get them involved in international activities also through FIG. The conference in Stockholm will be a major Working Week including election of two Vice Presidents and all Chairs Elect for our ten professional commissions. I look forward to meeting you all in Sweden during the white Midsummer nights.

I have enjoyed very much cooperating with you all during this first year of my Presidency. I want to thank especially HKIS for organising an excellent Working Week in Hong Kong, and also CFIA/CIT for the memorable regional conference in Costa Rica. Special thanks also goes to all other member associations for their hospitality when welcoming me and council members during the several visits and conferences over the year. Special thanks also belong also to Commission Chairs, officers and delegates – without this voluntary work FIG would not be the network of experts that it is now.

Yours sincerely,

A Tuemar

Stig Enemark
President of FIG

XXIII FIG Congress in Munich, Germany, October 8–13, 2006



The City Hall of Munich at Marienplatz.

Shaping the Change – Biggest FIG congress in history

The XXIII FIG Congress was organised in Munich, Germany 8-13 October 2006. The congress was attended by 1,300 delegates from about 100 countries. Together with the INTERGEO conference and other simultaneous events the congress was attended by 3,000 participants. The INTERGEO trade fair attracted about 19,500. These are the biggest numbers to any FIG event in the history. Many of the individual events had record attendance - e.g. the joint INTERGEO-Treff and FIG Foundation Dinner sold out the hall at the Löwenbräukeller with more than 1,800 participants. The memorable Farewell Dinner at the Hofbräuhaus was sold out allowing 600 delegates to enjoy Bavarian hospitality.

At the opening ceremony the welcome address was given by Dr. **Edmund Stoiber**, Bavarian Minister President. In his greeting Dr. Stoiber expressed that surveyors' contribution is essential for the development of a country. An important message when it comes from a high level politician. Prof. **Holger Magel**, FIG President gave the Presidential Address

Shaping the Change focussing on the policies and achievements of FIG during the German presidency.

The keynote address was given by Dr. Klaus Töpfer, long-time Executive Director of the United Nations Environment Programme (UNEP). His speech For a More Just World - the Surveyors' Role for Achieving Sustainable Development was considered as the highlight of the congress. In his presentation he linked measuring with the perception of ideologies. For surveyors there is a lot of work to be done in the implementation of rule based systems on property right registration and secure tenure: "If you want a conflict then destroy the cadastre." Clear and accepted property situations are a basis for freedom and a basis for (peace) investment; this is the highest priority on the development agenda e.g. slum upgrading is not successful without secure tenure. Töpfer acknowledged that FIG is a premium partner of UN because of the needs for surveyors knowledge. "We need better land management systems with better data; governments should make money available for that as they do for other infrastructures."

The presentations included also a welcome address by Mr. **Hagen Graeff**, President of German DVW that hosted FIG Council for the previous four years. The two congress directors **Thomas Gollwitzer** for FIG 2006 and **Walter Henninger** for INTERGEO shared the responsibility to chair the opening ceremony. This joint FIG/INTERGEO activity resulted in record attendance to the opening ceremony where the doors need to be closed after 1,400 participants had filled in the main hall at ICM.

The FIG Congress Prize was awarded to Ms. **Nsame Nsemiwe** from Zambia for her two papers. The entertainment during the opening ceremony was performed by double-bass ensemble *Bassiona Amorosa* that played both classical favourites and a new arrangement of the FIG fanfare with great success.

The technical and scientific programme of the congress consisted of four plenary sessions (three jointly with INTERGEO and one also with IAG), 90 technical sessions and couple of workshops (history of surveying, quality management for geodata and hydrography as well as ESRI workshop): in the technical sessions about 500 papers were presented and in addition almost 100 displayed in the poster exhibition.

The first plenary session focussed on *Urban* and *Rural Inter-relationship in Land Administration* with keynote speakers Dr. **Lars Reutersward**, Director, UN-HABITAT, **Maximilian Geierhos**, Head of the Bavarian Administration for Rural Development, and **Rob Mahoney** presenting the FIG Marrakech Declaration and its outcome.



The FIG 2006 opening ceremony gathered more than 1,400 participants to the main auditorium of ICM in Munich. \odot HINTE GmbH.

The second plenary session was on Disaster und Risk Management chaired by Peter Creuzer, President of UN ECE WPLA. Speakers included Dr. Lutz Cleemann, Allianz Zentrum für Technik GmbH, David B. Zilkoski, NOAA, discussing Earth Observations: Bringing Together Critical Information for Disaster Preparedness and Response and Prof. Jochen Zschau, GFZ presenting the German-Indonesian Tsunami Early Warning System for the Indian Ocean. In conjunction to this session the FIG publication on The Contribution of the Surveying Profession to Disaster Risk Management was launched.

The third plenary session was about *Geoinformation on Demand* with Prof. **Josef Frankenberger**, Head of the Bavarian Land Survey Administration, Prof. **Joseph Salukvadze**, Tbilisi State University and **Berik Davies**, Shell International Exploration & Production B.V. as main speakers.

GIS and SDI were also key topic for some invited sessions introducing international experts like **Jack Dangermond**, President of ESRI, **Jarmo Ratia**, President Elect of GSDI, Prof. **Milan Konecny**, President of ICA. Also many other sister organisations were present at the congress including Prof. **Ian Dowman**, President of ISPRS, Prof. **Gerhard Beutler**, President of IAG and representatives of IHO, Eurogeomatics, IFHP, IFHS, ISM, CLGE, GE, FGF etc. The Joint Board of Geospatial Information Societies had two meeting during the congress on disaster management and on capacity building.

The last plenary session on *Global Change* focussed on new technologies with speakers Prof. **Reiner Rummel**, Permanent Secretary of the German Geodetic Commission, Prof. **Hermann Drewes**, President of IAG Commission 1 and Prof. **Hans Haubold**, United Nations Office for Outer Space Affairs (UN-OOSA). This session organised jointly with IAG and the Geodetic Week was chaired by Prof. Gerhard Beutler, IAG.

The general opinion on the technical sessions seemed to be that the quality of papers was in general higher than at some previous events and that attendance in many sessions was surprisingly good. This applies especially to commissions 8, 9 and 10. All commissions had several internal meetings during the week to discuss their work plans and future projects.

As normally several technical tours offered good opportunities to learn about German surveying and technology.

The Congress week was full of social highlights starting with the welcome reception at the Holiday Inn. About 700 delegates arrived in time to attend this successful get together party – tasteful food and drinks made people to enjoy the reception long beyond the closing



Alois Glück, Präsident des Bayerischen Landtags, and Dr. Edmund Stoiber, Bayerischer Ministerpräsident, together with Hagen Graeff, President of DVW and Prof. Holger Magel, President of FIG.



Commission Chairs receiving appreciation for their work as commission leaders at the end of the term of office.



The exhibition was combined with INTERGEO 2006 which had more than 500 exhibitors covering more than 30,000 sqm and attracting more than 19,000 during the three days.



The combined INTERGEO-Treff and FIG Foundation Dinner attracted more than 1,800 participants to the sold out Löwenbräukeller to enjoy Bavarian culture, food and beer. © HINTE GmbH.

time. On Monday heads of national delegations were invited to lunch reception at the City Hall of Munich, hosted by the mayor of Munich. The reception allowed participants to admire this central point of Munich. The Bavarian State Reception was organised in the famous Kaisersaal of the Residenz Castle. These royal rooms gave an impression of the great history of Bavaria. Almost 700 guests crowded in these impressive rooms.

In the evening of the opening of FIG 2006 and INTERGEO the traditional INTERGEO-Treff was organised in the Löwenbräukeller, one of the most famous breweries in Munich. The evening with Bavarian music, food and beer fulfilled expectations of more than 1,800 participants. The congress was concluded with the Farewell Dinner at the famous Hofbräuhaus.

The very final social event was organised by FIG 2010. This reception at the Holiday Inn after the closing ceremony gave a taste of "aussie" hospitality and food and allowed to meet with the Australian team with young ambassadors - young surveyors were in focus during the whole FIG 2006 – and the nature represented by a grown-up koala.

The exhibition of the FIG Congress was this time combined to the annual INTERGEO Trade Show. The exhibition attracted more than 19,500 visitors to the exhibition that expanded to three hall at the ICM covering 30,000 sqm of exhibition space and introducing 550 exhibitors.

The FIG General Assembly met in two sessions 8 and 13 October. Major decisions were: Prof. **Stig Enemark** from Denmark was elected as the new President of FIG 2007–2010. He won in the election over **Ken Allred** from Canada and **TN Wong** from Hong Kong. Mr. **Matt Higgins** (Australia) and Dr. **Dalal S. Alnaggar** (Egypt) were elected as Vice Presidents for 2007–2010. Prof. **Paul van der Molen** was elected as Vice President for the two years term of office (2007–2008).

Mr. **Jürg Kaufmann** (Switzerland) and Prof. **Kazimierz Czarnecki** (posthumously) were appointed as Honorary Members of FIG.

The FIG Working Week 2011 was admitted to ONIGT from Morocco to be held in Marrakech in April/May 2011. During the General Assembly four new FIG publications were launched: Enhancing the Representation of Under-Represented Groups in FIG; Administering Marine Spaces: International Issues; Guide on the Development of a Vertical Reference Surface for Hydrography; and The Contribution of the Surveying Profession to Disaster Risk Management.

Several new members were approved in Munich: Institution of Surveyors of Tanzania, Syndicat National des Géomètres-Topographes et Assimilés du Bénin, Iranian Society of Surveyors, Federation des Ingenieurs Géomètres-Topographes (Congo D.R.), Mongolian Association of Geodesy and Cartography, Society of Professionals of Land Information Technologies (Georgia), China Institute of Real Estate Appraisers and Agents and FENEA – Federação Nacional dos Engenheiros Agrimensores from Brazil and the Hong Kong Institution of Engineering Surveyors.

New affiliates members were endorsed from Iceland, Macedonia FYROM, Mongolia, Romania and ANZLIC from Australia and New Zealand. Totally 7 new corporate members were approved raising the number of corporate members to 34, this includes also the first member from Sudan. 13 universities and institutions were endorsed as academic members.

At the closing ceremony President Magel summarised lessons learnt "surveyors can shape the change by collaboration, communication and cooperation. Surveyors can shape the change with passion, energy and enthusiasm by working in many dimensions. Surveyors need wings for flying in the air and boots for walking on the rough ground."

Work Plan 2007–2010 – Building the Capacity

Promoting and Enhancing the Role of FIG

- Professional development
- Capacity building and institutional development
- Global development
- Linking the global agenda and individual surveyors

Continuing and Enhancing the Dialogue with the Member Associations

- Promoting the benefits of being a member
- Increasing the membership base
- Ongoing implementation of the information and communication policy
- Establishing a forum for mapping agency chief executives
- Establishing a forum for corporate members

Promoting FIG as a Global Organisation

- Encouraging global representation in Council and commission officers
- Encouraging global distribution of and representation at FIG conferences
- Interacting with regional organisations and respecting cultural diversity

Responding to the Millennium Development Goals

- Developing an FIG policy on the MDGs in cooperation with the UN agencies and the World Bank
- High level FIG/WB conference in 2008 to promote the FIG global profile in this area

Revising the Conference Structure

- Even years: Major conference such as the FIG Congress or a major Working Week
- Odd years: Working Week and regional conference in partnership with the UN organisations
- Council initiated expert symposia on topical issues e.g. linked to national events

Empowering ACCO and the Commission Activities

- ACCO as a dynamic forum for strategic advice and professional development
- Enhancing the profile of the technical programme at the conferences including peer reviewed papers
- · Establishing an online FIG journal
- Establishing Task Forces to deal with inter-commission activities and policy implementation

Sustaining the FIG Office Administration and Finances

- Administration
- Finance
- Meetings
- Events

FIG Working Week and XXX General Assembly in Hong Kong SAR, China, 13–17 May 2007

First Working Week for the new FIG Council: Strategic Integration of Surveying Services

The FIG Working Week 2007 including XXX General Assembly was organised in Hong Kong SAR, China 13—17 May 2007. The conference was attended by more than 500 delegates from 64 countries. The Working Week was organised by the Hong Kong Institute of Surveyors HKIS together with FIG. The local organising Committee was chaired by Mr. **Hak Chan** and the Congress Director was the capable Ms. **Winnie Shiu**.

The highlight of the opening ceremony was the traditional Lion Eye Dotting Ceremony followed by the Lion Dance. The Eye Dotting Ceremony was performed by the Honorable **Donald Tsang**, the Chief Executive of HKSAR, Mr. **Raymond Chan**, President of HKIS and Prof. **Stig Enemark**, FIG President. The welcome addresses were given by Mr. **Lu Xinshe**, Vice Minister, Ministry of Land and Resources and Director General of State Bureau of Surveying and Mapping, Mr. Hak Chan, President Raymond Chan and President Stig Enemark.

At the plenary session after the opening ceremony the keynote addresses were given by Dr. Leung Ying, GBS, JP, Convenor of the Nonofficial Members of the Executive Council of the Hong Kong SAR. His presentation underlined the importance of Hong Kong's professionals 'getting access' to mainland China. Globalisation included a growth in cross-border investment in real estate: US\$ 551 billion in 2006. The total value of real estate in South East Asia was, he reported, strongly growing. Dr Leung brought into discussion economy of scale; there were four global accounting firms, the fifth largest in the world so small that it escapes public notice. What will happen to the land professions?

The second keynote speaker was President Enemark, whose presentation covered *The Role of FIG in Responding the Millennium Goals and the Global Agenda*. Surveying and mapping, spatial information management, cadastre and land management provide a basis for poverty reduction and sustainable development. FIG would work closely with the World Bank and UN-Habitat to support and contribute to the global agenda. Most relevant was administering the people-to-land relationship through land policy, land management, good governance and building the capacity to deal with this.

The second plenary sessions focussed on governing mega cities – policies and technical aspects with Prof. **Holger Magel**, Mr. **Albert Leung** and Mr. **Tony Tse** as the keynote speakers. Professor Magel's presentation



The Hong Kong harbour.

focussed on good governance. What could be learned from managing mega-cities? "It is high time that FIG explains what good governance is," argued Prof. Magel. Megacities could be "magnets of hope" or "the last stop on the way to hell". Co-operation, participation, collective learning, targeted resources and, again, transparency, were all part of the solution. Holistic solutions needed to be adopted: ministries and departments were not "their own kingdoms". Mr Tse addressed in his speech the land market in Hong Kong.

The final plenary session was about responding to the global agenda with Keith Bell from the World Bank, Prof. Theo Kötter from Uni Bonn and Dr. Xiao Ping as the keynote speakers. In his keynote Good governance and land administration Keith Bell explained that the World Bank has invested substantial sums of money in land-reform projects and much attention has been paid to institutional aspects in relation to this: transparency, accountability and separation of bureaucracy and politics. Prof. Kötter spoke about disaster management. The number of disasters worldwide had grown significantly over the past fifty years. Mega-cities with a very high population density were a challenge in this respect. Surveyors could provide great sup-



Lion Dance welcomes FIG to Hong Kong.



A toast to the Local Organising Committee at the gala dinner.



Raymond Chan, Stig Enemark and Chun-ying Leung.



Vice Presidents Ken Allred, Dalal S. Alnaggar and Paul van der Molen.

port for spatial planning; such support took the form of GPS (also for tsunami-warning systems), photogrammetry, earth observation and GIS.

The technical and scientific programme of the conference consisted of 60 technical sessions with almost 300 papers. Unfortunately the number of unpresented papers was bigger than in previous FIG events. Some of the sessions offered high profile presentations and especially the session that was coordinated with the World Bank received good feedback. In the future Commissions are considering increasing the quality of presentations by offering a peer-review process to give academics increased interest to attend the meetings. The option to present practical papers and case studies will be kept.

The Working Week was full of social highlights starting with the welcome reception at the Kowloon Shangri-La Hotel followed by the FIG Foundation Dinner and Chinese Evening at Stanley Plaza with the Hong Kong Police Band. The farewell dinner took place at the conference hotel. The exhibitors' party was well received both by the exhibitors and the visitors.

The FIG General Assembly met at two sessions on 13 and 17 May 2007 at the Shangri-La. New members were approved including a new member association from Romania and an affiliate member from Norway and Tajikistan. Bentley Systems joined as platinum corporate member. The General Assembly also expelled some member associations, affiliates and academic members due to unpaid membership

fees. Prof. **Holger Magel** was appointed as an Honorary President.

The most important decision of the General Assembly was adoption of the Council and Commission work plans for 2007—2010. In addition the MoU between FIG and the World Bank was endorsed. FIG Working Week 2012 was given to CNG from Italy to be held in Rome.

The second session of the General Assembly focussed on report of the next conferences.



The Hong Kong Police Band entertaining participants at the FIG Foundation Dinner.

FIG Regional Conference in San José, Costa Rica, 12–15 November 2007

Coastal Zone Management, Land Administration and Capacity Building in focus

The 6th FIG Regional Conference was held in San Jose, Costa Rica, 12–15 November 2007; the first time the event had been held in Latin America. The themes of this regional meeting, Coastal Zone Management, Land Administration and Capacity Building were selected focusing on the regional hot topics named; environmental issues especially to use and future of coastal regions. The conference was organised by FIG and the Colegio Federado de Ingenieros y de Arquitectos de Costa Rica (CFIA)/Colegio de Ingenieros Top6grafos de Costa Rica (CIT), the FIG member association in Costa Rica. Other international and regional organisations cooperated, including the United Nations and its agencies and international and regional spatial information societies. Almost 250 delegates from 32 countries participated the event.

At the opening ceremony the keynote addresses were given by Mr. Fernando Zumbado, Costa Rican Minister of Housing, Ing. Juan Manuel Castro Alfaro, President of CFIA/CIT and Prof. Stig Enemark, FIG President. The welcome address on behalf of CFIA was given by Ing. Freddy Bolanos, representing Ing. Olman Vargos Zeledon, Executive Director of CFIA.

The technical programme included 21 technical sessions and workshops. The sessions – running three in parallel – attracted a lot of delegates and held a very high professional standard. The three plenary sessions focused on the key topics of the conference: coastal zone management; land administration; and capacity building. Totally 60 papers were presented and published on the FIG web site.

The technical exhibition was compact having booths covering surveying and geomatics



Ing. Freddy Bolanos, Congress Director, giving his welcome address.

technology internationally and in Costa Rica.

Social highlights of the week started with a welcome reception at the CFIA headquarters on Monday. This arrangement offered delegates time for relaxation and an opportunity to enjoy the choir of CFIA. The Costa Rican Cultural Evening on Tuesday at the Pueblo Antiguo Park included Costa Rican music and dances, typical local food and drinks, Costa Rican masquerade and fireworks. The Farewell Dinner was given in the Ramada Plaza Herradura Hotel, the venue of the conference.

At the closing ceremony addresses were given by Arq. **Eugenia Morales**, Sub Director of CFIA, President Castro Alfaro and President Enemark, who also at the end of the ceremony gave appreciations to the organisers of the 6th FIG Regional Conference for a well-prepared event.

In his closing address President Enemark presented the conclusions reached by the meeting. As regards coastal-zone management, it may be observed that society across the world is moving towards the coast. The coastal zone is a dynamic environment where change is a constant. The development of this zone should be without exclusion of any group or use: we need to ensure social justice. We need to find an equitable balance between conflicting priorities, between rich and poor. It is a real issue in Costa Rica and in many other parts of the world. Coastal zones are highly vulnerable due to dynamic change, e.g. in climate and multipurpose use at the land/sea interface.

Based on the outcome of the conference, FIG is preparing a publication to identify problems and issues relating to coastal regions and analyse these in the context of integrated coastal zone management from the perspective of the role of the surveyor, supporting technology, capacity building and land administration. The publication will also examine recommendations and ways forward.



Costa Rican evening with mask dancers.



Ing. Juan Manuel Castro Alfaro, President of CFIA/CIT and Prof. Stig Enemark, FIG President at the closing ceremony.

The joint technical and social tour collected more than 200 delegates to the Poas Volcano followed by lunch at the Colinas del Poas restaurant. Finally the last stop on the tour brought participants to Coffee Britt company for a coffee tour. In this location the participants learned about the processes in a coffee plantation and enjoyed a very entertaining and informative show telling the history of coffee.

Commission Activities



President Stig Enemark, Aleš Cepek, Václav Slaboch and Karel Vecere at the Commission 2 symposium in the Dean's boardroom at the CTU in June 2007.



Sightseeing cruise on river VItava during Commission 2 symposium in Prague in June 2007.



Opening Ceremony of the Joint FIG Commission 3, UN/ECE CHLM and WPLA Workshop in Sounio in March 2007: Peter Creuzer, Kaj Bärlund, Chryssy Potsiou and Makis Apostolatos.

During 2007 the Commission chairs met at a special meeting in Bratislava, Slovakia, 9–11 February 2007 and during the Working Week in Hong Kong SAR, China and the Regional Conference in Costa Rica.

Commission 1 – Professional Standards and Practices

Commission 1 has established a Young Surveyors working group chaired by Cecilia Lindén. The principle idea is based on the fact that, today many of the FIG member organizations are facing difficulties to attract young people to the profession of surveying. The goal for the group is to create connections between "old" and "young" surveyors by increasing the number of young professionals participating in the work of FIG; by helping young professionals in the beginning of their careers with contacts; and by increasing co-operation between the commissions and students and young professionals. The working group is organising special programme for young surveyors in Stockholm in June 2007. The board of the working group met in Cairo in November 2007.

Commission 2 – Professional Education

FIG Commission 2 organised symposium on Curriculum Development under the title *Scientia Est Potentia* (Knowledge is Power) in Prague, Czech Republic 7–9 June 2007 in cooperation with the Faculty of Civil Engineering at the Czech Technical University (CTU). The main focus of meeting was to initiate discussion between Working Group 2.1 members, to introduce their experiences on Curriculum development. The organising committee was chaired by **Aleš Cepek** (CTU).

The papers presented at the symposium were independently and blindly reviewed by two scientific committee members, taking into account the indicated nature of the paper (scientific or strategic) and type of presentation. All accepted full papers were published in the proceedings volume and on the symposium website

The symposium was opened by **Václav Slaboch**, past Vice President of CLGE, **Karel Vecere**, President of the Czech Office for Surveying, Mapping and Cadastre (COSMC) and **Stig Enemark**, FIG President.

The symposium started with reports from commission working groups. It was decided to organise a workshop on e-Learning at ITC in Enschede in June 2008 by **Liza Gronendijk**, chair of WG 2.2. WG 2.3 on Educational Management and Marketing chaired by **Gert Steinkellner** will present their results in Vienna in March 2009. Prof. **Arvo Vitikainen**, chair of WG 2.4 stated that his working group is preparing a meeting on

educational programs in which students can really specialise in real estate economics.

Professor Enemark in his keynote presentation encouraged the interaction between education, research and professional practice, underlying the importance of curriculum development as the key to the future. **Ann B. Johnson**, the Higher Education Solutions Manager (ESRI), had a keynote presentation on *Meeting the Challenge – Incorporating New Technologies and Methods into a Curriculum for Surveying*. She introduced the experiences of the US team dealing with Body of Knowledge in GIS.

Totally 21 presentations were given in nine sessions during the symposium. The speakers represented 11 countries, educational and governmental institutes as well as private companies from all over Europe and also from Canada, United States and Hong Kong SAR, China. There was a separate session summarising the Bologna changes in Slovakia, Czech Republic, Canada and Croatia. An unforgettable sightseeing, a boat-trip on the River Vltava crowned the social part of the symposium.

Commission 3 – Spatial Information Management

Commission 3 organised a workshop on Spatial Information Management towards Legalising Informal Urban Development, and Informal Settlements – Real Estate Market Needs for Good Land Administration and Planning in Sounio, Greece, 28-31 March 2007. This was a joint workshop of Commission 3 and the UN/ECE Working Party on Land Administration (WPLA) and the UN/ECE Committee on Housing and Land Management (CHLM). The workshop focused on informal or unplanned development, a topic of major importance for several countries worldwide. Local organisers were the Technical Chamber of Greece (TCG), which was also a major sponsor of the event, and the Hellenic Association of Rural and Surveying Engineers (HARSE). In total 130 delegates from 42 countries participated the workshop. Welcome addresses were given at two opening sessions by TCG President Yannis Alavanos, HARSE President Chronis Akritidis, FIG President Stig Enemark, UN/ECE Division Director Kaj Bärlund, Commission 3 Chair Chryssy Potsiou, Commission 3 Vice-chair Makis Apostolatos, UN/ECE CHLM Chair Doris Andoni, and UN/ECE WPLA Chair Peter **Creuzer**. Keynote speakers were Prof. Enemark, Paul Kelly and Gabor Remetey.

A plenary session was held on *Policy makers* for planning and land administration. Technical sessions addressed: Technical aspects for informal urban development monitoring and planning control; Necessary tools for good land administration and planning; Informal

urban development; Land policies for lower economies; Land tools for planning and property registration; Illegal urban development in the ECE; eGovernance – participatory democracy; and Urban planning and property registration. Totally fifty papers were presented. To satisfy specific requests and to bring together experts from private and public sectors with academic members to jointly address issues of major importance, Commission initiated an optional, double-blind peer review process for presenters of papers at this workshop. At the workshop 12 papers were included through the peer review procedure. The workshop findings were summarised and published as special resolutions.

This was the first Commission 3 annual workshop in a series of three planned for 2007–2010. The next workshop will take place in Valencia, Spain in February 2008 with the topic Spatial information towards environmental management of mega cities.

Commission 4 - Hydrography

Andrew Leyzack and Gordon Johnston attended the XVII IHO Conference in Monte Carlo, Monaco, 7–11 May 2007. Gordon brought along his IHO Capacity Building Committee and International Advisory Board (IAB) hat. Representing FIG they were invited to join in the IHO General Assembly as observers. The conference provided an excellent opportunity for the Commission Chair to meet with members of the FIG/IHO/ICA IAB to discuss training, competency and certification issues. It was also an opportunity to drum up interest in the upcoming regional conference in Costa Rica. CARIS took up the call and offered to contribute to the regional meeting.

The conference in Hong Kong was the first working week where a newly formed commission met to kick off the new work plan. The Port of Hong Kong's Hydrographic Service hosted a tour of their facility and Commission 4 national delegate **Lesly Lam** organised a good workshop for both Commissions 4 and 5 to network. The annual Commission 4 meeting as well as two strategic planning meetings for Costa Rica was held during this event.

Past Commission 4 Chair **Adam Greenland** attended the 9th South East Asian Survey Congress, which was co-sponsored by FIG, in Christchurch, New Zealand 31 October – 2 November 2007. Commission 4 contributed with a significant hydrographic component to the session content of this conference.

The Regional Conference in Costa Rica was focused on providing answers to specific challenges faced within Central America, particularly within the coastal zone. Commission 4, was called upon to deliver technical sessions dealing with coastal zone management (CZM), the

administration of marine spaces and capacity building. On the latter issue, the IHO was keen to participate and to make contact with local stakeholders in regards to promoting the benefits of developing hydrographic capacity within the region because to date, Costa Rica has not established a national hydrographic office.

Starting in 2007, in cooperation with Reed Publishing commission initiated a quarterly Commission 4 Newsletter publication in Hydro International. In exchange for regular contributions to Hydro International, the publisher has offered to provide a free subscription to all Commission 4 delegates.

Commission 5 – Positioning and Measurement

Commission 5 has been pro-active through out the past year and has had several highlights.

At the Working Week in Hong Kong the Commission facilitated several GNSS CORS open sessions as this type of technical information exchange forum has proven to be a successful format at previous FIG events. The theme of these sessions focussed on new positioning techniques and infrastructure. As result, a new sub-group of WG 5.3 called New Positioning Techniques Forum chaired by **Andrew Hunter** was formed. This group met informally for the first time at the 4th International Symposium on LBS and TeleCartography which was held in Hong Kong, November 2007.

At the Regional Conference in Costa Rica the Commission facilitated another series of GNSS CORS forums. The objective of these discussion sessions was to provide fundamental information about GNSS CORS to assist with the uptake and implementation of such infrastructure to manage land administration issues and initiatives in the region. From Commission work plan perspective it was the launching pad for the Commissions "fact sheet" programme.

Following on from the International Association of Geodesy (IAG) / FIG MoU signing in Munich, the Commission 5 Steering Committee have met, through the course of the year at various conferences, with IAG officials **Ruth Neilan** and **Chris Rizos** to discuss future combined events. Another highlight this year was the signing of United States Institute of Navigation (ION) / FIG MoU in March 2007 by FIG Council and ION representative **Dorota Brzezinska**. This signing will now provide a clear mandate for ION, FIG and IAG to work towards a three-way co-operation on GNSS matters.

Commission 5's liaisons also include practical involvement as **Naser El Sheimy** assisted with the organisation of the FIG / ISPRS / IAG 5th International Symposium on Mobile Mapping Technologies in Padova, Italy May 2007. Chair



Informal urban settlements and slum upgrading is a hot topic to several FIG Commissions.



Commission 4 has a key role in planning coastal areas and on coastal zone management.



Commission 5 officials at the ACCO meeting in Munich: Rudolf Staiger (chair 2006-2010), Matt Higgins (Chair 2002-2006) and Rob Sarib (Chair of Administration).



Participants at the Commission 7 Annual Meeting 2007 in Seoul, Korea.



Alojz Kopacik, Chair of Commission 6, arranged the ACCO meeting in Bratislava in February 2007. The meeting was sponsored by the Chamber of Surveyors and Cartographers, President Vladimir Stromcek (in the middle) and Jan Hardos attended the meeting.



Clara Msale from Tanzania University receiving the Ernst & Young Australia award for best content material in a presentation in Commission 8 programme at the Working Week in Hong Kong.

Rudolf Staiger attended the 24th General Assembly of International Union for Geodesy and Geophysics in Perugia, Italy July 2007 as the official FIG representative. Vice President Matt Higgins participated and provided reports from several major GNSS meetings such as the Munich Satellite Navigation Summit 2007 and the United Nations – International Committee on GNSS.

Commission 5 conducted a special session on geodesy supporting sustainability, chaired by **John Hannah**, at the 9^{th} South East Asian Survey Congress and the 119^{th} New Zealand Institute of Surveyors Conference in Christchurch, New Zealand 31 October – 2 November 2007.

Commission 6 – Engineering Surveys

Commission 6 organised during 2007 two events that were planned by commission working groups and members. International course for engineering surveying was held in Graz, Austria and the 8th conference on optical 3D measurement techniques was held in Zürich, Switzerland. Both these events are well-known within the engineering surveying community and were attended by high number of participants. Traditionally these events focus on surveying, geodesy, machine-, computer- and robot-vision and spatial information systems gathering representatives from universities, industry and government to discuss recent scientific and technical advancements and applications for optical static and kinematic 3D measurement techniques. Emphasis at both meetings was in new and emerging technology in laser-scanning.

Commission chair Prof. **Alojz Kopácik** attended the XIII Congress of the International Society for Mine Surveying in September 2007 in Budapest, Hungary representing FIG Council. Papers and presentations were prepared for the

ISPRS Conference held 2007 in Beijing, China in co-operation of the joint working group with Commission 5 on laser scanning.

There are two conferences planned for 2008: the 13th International Symposium on Deformation Measurements in Lisbon, Portugal, 12–15 May 2008 and the 4th International Conference on Engineering Surveying – INGEO in Bratislava, Slovakia.

Commission 7 – Cadastre and Land Management

In Commission 7 work plan 2007–2010 there are three important aims that the commission will focus: promotion the importance of development of land administration world wide; strengthening co-operation and working relations with UN organisations and the World Bank; introduction of low-cost and innovative technology in land administration and cadastre. To implement these aims the commissions has organised or cosponsored following events:

The FIG Commission 7 Annual Meeting 2007 was held in Seoul, Republic of Korea, 18-23 May 2007 together with an open symposium on Good practice in cadastre and land registry. The meeting was organised in co-operation with the Korean Cadastral Survey Corporation (KCSC). The meeting was strongly supported by KCSC and Ministry of Government Administration and Home Affairs. Forty participants from 14 countries attended. Mongolia attended as new country. More than 300 Korean professionals participated the open symposium, where papers were presented by Commission 7 delegates and professionals from the region. As part of the symposium the Cadastral Expo was opened; the opening ceremony of the exhibition gathered an audience of 3,000 people including politicians and foreign visitors.

One day workshop on Land administration for sustainable development was arranged before the GeoConference Quebec 2007 (2-5 October 2007) in Quebec, Canada. The successful event was organised by Commission 7 WG 7.2 in co-operation with local organisers - Daniel Roberge, Canadian delegate to Commission 7 and Soeren Christensen chair of WG 7.2 being in charge for the arrangements. Fifty participants from 22 countries attended, half of them coming from developing or emerging countries representing mainly professionals on land administration, cadastre and academia. President Stig Enemark, Remy Sietchiping, UN Habitat and Keith Bell, World Bank were invited speakers proving a live working relation between FIG and the UN organisations.

UN FAO organised an Expert Group Meeting on the project FLOSS Cadastre in Rome, 22–23 October 2007. The project free/libre open source

software FLOSS, is in the cadastral field supported by the World Bank and FIG Commission 7 as part of Commission 7 WG 7.3 activities. FAO provided some funding to start the project. The main initiative comes from the Land Tenure group of FAO, which has seen several projects fail in developing countries often due to the high software and license costs. FAO and World Bank representatives and invited experts participated the meeting, where Commission 7 was represented by its Chair **András Osskó** and **Daniel Steudler**, Chair of WG 7.3.

An Expert Group Meeting for African land registrars in Nairobi, Kenya, 26–27 November 2007 was organised by UN-Habitat. At the meeting many questions was debated, for example, how the existing continuum and recognition of customary rights can be applied to implement incremental tenure upgrading. It was also discussed what particular techniques and procedures must be envisaged to register land rights and transactions in "non-cadastral" environment. **Christian Lemmen**, Chair of WG 7.1 represented commission at the meeting and presented paper *Social Tenure Domain Model*.

Commission 8 – Spatial Planning and Development

In 2007 Commission 8 activities concentrated on conferences in Hong Kong and in Costa Rica. Dr. **Diane Dumashie** is preparing a report that references a full round up of technical sessions relating to informal settlements over the period (2002–06). The report will be published in 2008.

Commission 8 working groups are currently building content around the various working groups. This applies particularly around working groups on informal settlement issues in spatial development, planning and governances; land use planning and implementation; and urban planning and coastal regions.

Commission 9 – Valuation and the Management of Real Estate

Commission 9 organised a seminar Compulsory purchase and compensation in land acquisition and taking in conjunction with the Baltic Valuation Conference and together with FIG Commissions 7 and 8 in Helsinki, Finland 6–8 September 2007. The goal was to intensify discussions between valuation people, surveyors, real estate experts, financiers, urban planners, researchers, teachers and decision-makers, and to develop ideas for shaping the future.

President **Stig Enemark** and Finnish Minister of Housing **Jan Vapaavuori** gave welcoming addresses. The focus of the seminar was on expropriation systems and the need for alternatives, compensation, quality management of expropriation processes, protection of property rights, uncertainty of valuation, pro-poor approaches to compensation and expropriation in developing countries, human rights perspective, history and development of expropriation. Much attention was given to the background and context of the FAO/World

Bank Initiative on Compulsory Purchase and Compensation. Finally, some special themes and cases from specific regions were discussed, such as the matter of boring a tunnel under someone's house or whether land expropriation supported innovative procurement in road projects.

The seminar was a valuable experience for Commission 9 also in scientific sense, as the authors of conference papers were also offered the possibility to participate in a peer-review process. Altogether there were about 120 very active participants from 35 countries with more than 40 very interesting presentations. Of all papers, 21 went through the peer-review process.

It was suggested that an international committee of experts be established to advise countries on specific problems. There should be guidelines on skills and support-organisations needed for development of skills and capacity, as well as relevant standards for compensation, assessment definition and procedures. Also discussed was the need for an authorisation or licensing system for specialist valuation and other experts, along with creation of independent and liable professional bodies to provide all parties with information. The presentations and opinions presented during the workshop form a solid basis for future developments, in co-operation with FAO and the World Bank.

Since the Working Week in Hong Kong WG 9.2 has been concentrating on the two days of special sessions that will be organised during the Working Week in Stockholm. WG 9.3 is preparing a diagnostic tool for analysing the practices of the valuation profession in different countries, being in the phase of acquainting oneself with the existing systems around the world and selecting case countries. WG 9.4 is collecting valuation report examples from different countries to prepare the review of valuation methods and standards. WG 9.5 is focusing in identifying the effects and possibilities of digitalisation for of the profession in real estate markets.

In addition, **Kauko Viitanen** represented Commission 9 in the Cyprus Golf Development Conference organized by RICS in October 2007.

Commission 10 – Construction Economics and Management

Historically, Commission 10 has worked on construction economics and commercial management together but it is proposed in the current work plan that they be studied and discussed separately in future. Interest in and discussion of the detailed and technical issues of construction economics may be enlivened by some consolidation of the current separate strands of activity within the commission. The commercial management group would concentrate on the primary and strategic issues, in particular those that are concerned with procurement and contracts. The Commission will focus only on strategic issues and the options of different solutions to problems and needs. This is because the detail of application will have to vary with every country's policy-economic and social development and needs.



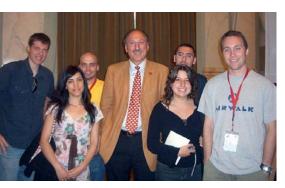
Dr. Paul Munro-Faure, FAO at a workshop during Commission 9 seminar in Helsinki.



Commission 9 seminar at the Helsinki Technical University.



Many commissions are working with the United Nations and the World Bank on implementing the Millennium Development Goals.



President Holger Magel among students at the IGSM in Cracow.



The opening of the Professional Enhancement Course in Rome: from left: Prof. Casella, President Piero Panunzi, CNG, Ms. Orietta Felici, Head of the Instituto Leon Battista Alberti, Chair of the opening ceremony, Dr. Andreas Drees and Mr. Kurt Rieder, President of EGoS.



Charminar four tower building in Hyderabad, India where the World Map Forum took place.

Member visits 2006

Representatives of the FIG Council 2003—2006 visited following member associations and events from June to December 2006.

Vice-President **Stig Enemark** participated the *38th National Congress of the French Géométres-Experts* in Saint-Malo, France, 14—16 June 2006. The congress was very well attended with about 500 French surveyors plus a range of international participants especially from Francophone world. The Congress was headed by Mr. **Alain Gaudet**, President of the Ordre des Géometres-Experts.

President **Holger Magel** attended the *XIX* International Geodetic Students Meeting (IGSM) in Cracow, Poland, 30 June – 2 July 2006. President Magel gave a keynote speech About FIG's and Surveyors Contributions to Building a better world at the final plenary session of IGSM that was attended by more than 100 students from about 15 countries who also listened to the speech of Prof. **Kazimierz Czarnecki**, President of the Polish surveyors' association SGP (who passed away short after the meeting).

President Magel attended the 5th Map Asia 2006 in Bangkok, Thailand, 29 August – 1 September that was co-sponsored by FIG and organised by GIS Development in cooperation with Thai Survey. GIS Development President M. P. Narayanan could welcome about 1,000 delegates from more than 30 mainly Asian countries. According to the conference theme GeoICT for Good Governance President Magel gave a keynote speech about Geographic Information: Global trends and perspectives for sustainable development. The visit also allowed discussions on the Thai membership in FIG.

Vice President **Andreas Drees** and the FIG Director visited Rome, Italy 11–13 September 2006 to attend the first international *Professional Enhancement Course for Surveyors* organised by the Consiglio Nazionale Geometri (CNG) with co-operation of the University of Pavia for Italian and international surveyors. The number of participants was 25 representing most regions of Italy and invited students from several European and Mediterranean countries.

FIG President Magel visited Morocco and the headquarters and regional offices of FIG member association ONIGT in Rabat and Casablanca 9—17 September 2006. He also gave a lecture at the Institut Agronomique et Vétérinaire Hassan II, an academic member of FIG.

The FIG Director attended the Swedish Surveying and Valuation Conference in Stockholm 18–19 October 2006. This annual national conference was attended by about 400 participants who listened for two days on presentations on surveying, valuation and real estate management.

President Magel visited China and Hong Kong SAR, 23 October – 3 November 2006 on the occasion of the 50th anniversary celebrations of former WTUSM and the 14th Geoinformatics 2006 in Wuhan, where he delivered both a welcome greeting and a keynote speech From Surveying to Geomatics and Land Management. During the visit he met with the board of the new member association CIREA in Beijing. On the occasion of his visit to the State Ministry of Lands and Resources Prof. Magel was awarded with the first time to foreign experts given title of Senior Advisor of Land Consolidation and Rehabilitation Centre, Ministry of Lands and Resources by Vice Minister Lu Xin She, who is simultaneously the Director General of the State Bureau of Mapping and Surveying.

FIG President Elect Stig Enemark and the FIG Director visited San Jose, Costa Rica 13–17 November 2006 to discuss the 6th FIG Regional Conference and to meet with representatives of the Colegio de Ingenieros Topógrafos de Costa Rica (CIT), the FIG member association in Costa Rica and Colegio Federado de Ingenieros y de Arquitectos de Costa Rica (CFIA).

Member visits 2007

The FIG Council members and representatives of the Federation have visited following member associations and events during 2007.

President Stig Enemark visited the Map World Forum Conference in Hyderabad, India, 22-25 January 2007, the conference being the key regional event on geospatial information, organised by GIS Development, India. President Enemark presented a keynote paper on Building the Capacity: Promoting Institutional and Organizational Development in Surveying and Land Administration. A total of five plenary sessions, 11 seminar session, 3 seminars, and 14 technical sessions concluded a very comprehensive program with about 200 presentations. The conference was attended by more 1,000 participants. President Enemark also chaired the seminar and the following panel discussion on surveying and mapping. During the conference he had the opportunity to discuss with key players in the surveying field in India, including Maj. Gen. M. Gopal Rao, Surveyor General of India, in order to invite India to become a member of FIG.

President Enemark and Vice President **Paul van der Molen** visited the Institution of Surveyors of Kenya in Nairobi, Kenya, 29–31 January 2007 during their visit to UN-Habitat to discuss with UN-Habitat co-operation on Global Land Tools Network and participating the expert group meeting on transparency in land administration.

The FIG Director met during his visit to Hong Kong in January representatives of the Hong Kong Institute of Surveyors and the Hong Kong Institute of Engineering Surveyors. On the way he met with the Private Surveyors Association of Malaysia in Kuala Lumpur.

President Enemark visited Havana, Cuba, 12-17 February 2007 as invited keynote speaker at the International Congress GEO-MATICA 2007. The congress was organised as part of the XII Convention on INFORMATICA 2007 that included a range of sub congresses and symposia with more than 1,000 participants. GEOMATICA 2007 was organized by Dr. Tatiana Delgado. The congress included about 20 sessions with about 80 presentations, with a special focus on geospatial data infrastructures. President Enemark gave a welcome address at the opening session and a key note presentation on Land Management in Support of the Global Agenda that included an overview of the FIG organisation current policies in a global perspective. He also chaired a session on cadastral systems, a very actual topic in Cuba that is currently building a cadastral database for both the rural and urban areas. During the visit President Enemark also had the opportunity to meet with UNAICC and to discuss future co-operation.

During the *Commission officers meeting* in Bratislava, Slovakia, 9–11 February 2007 the ACCO members had the opportunity to meet with and to enjoy the hospitality of the two Slovak member associations.

President Enemark and the FIG Director met with the leaders of the Swedish SLF 22 February 2007 to discuss among other issues the Working Week 2008.

Vice President **Matt Higgins** attended the *Munich Navigation Summit 2007* in Munich, Germany, 6–8 March 2007. In the programme there were many excellent presentations on latest status and policy developments relating to all the major providers of GNSS, including the EU, USA, Russia, India, Japan and China. The summit had approximately 440 registrants from 28 countries.

President Stig Enemark paid visits to the University of Nairobi and the Institution of Surveyors of Kenya (ISK) in connection to his visit to the meeting of the *Governing Council* of UN-Habitat 16–20 April 2007.

Vice President Paul van der Molen attended Commission 7 Annual Meeting and Seminar in Seoul, Korea on behalf of the Council 19–23 May 2007.

Vice President **Ken Allred** represented FIG at the 2007 Annual Conference of the Canadian Institute of Geomatics (CIG) and the Joint CIG/IS-PRS Conference on Geomatics for Disaster and

Risk Management Gi4DM in Toronto, Canada 23-25 May, 2007. The conference theme was Geomatics for Disaster and Risk Management. Ken Allred was the recipient of the CIG President's Citation at their gala dinner. He received the award from CIG President **Terry Tarle** in appreciation for his special contribution to the Canadian geomatics profession through his active international role in FIG.

President Enemark represented the Council at the *FIG Commission 2 seminar Scientia Est Potentia* in Prague, Czech Republic 7—9 June 2007.

Vice President **Dalal S. Alnaggar** visited the 5th National Congress of ONIGT in Casablanca, Morocco 15–16 June 2007.

President Enemark was invited to attend the Survey & Engineering GIS Summit in San Diego, USA, 16-19 June 2007 as keynote speaker. The summit was held in conjunction with the 27^{th} Annual ESRI International User

Conference that attracted more than 15,000 visitors from throughout the world. The summit was the 5th of its kind where surveyors come together to discuss, share, and learn about applications of GIS to land surveying. The summit attracted around 400 participants from 22 countries and included more than forty sessions dealing with a range of surveying topics. President Enemark also gave a keynote address at the ESRI Education User Conference that was held in parallel to the Survey Summit. Another keynote address was presented by Curt Summer, Secretary General of ACSM.

President Enemark attended the Cambridge Conference at St. John College, Cambridge, UK, 15-20 July 2007 as a plenary session keynote speaker. The tradition around the Cambridge Conferences is dating date back to 1928. Since then an increasing number of chief executives from National Mapping Agencies around the world have met at St. John College every four years. This year's conference entitled Expanding horizons in a shrinking world was attended by more than 200 participants from around 70 countries throughout the world. The conference was organized by Ordnance Survey, UK and hosted by Director General and Chief Executive Vanessa V. Lawrence. The conference was organized with plenary sessions in the mornings supported by a range of workshops



Evening reception photo: From left: Githinji Katuthu, ISK Hon Treasurer; Ibrahim Mwathane, Past Chairman of ISK; Stig Enemark, FIG President; Mwenda Makathimo, ISK Chairman; Justus Muhene, ISK Vice Chairman; S. G. Mwangi, ISK Hon Secretary.



GEOMATICA 2007 in Havana, Cuba.



ESRI President Jack Dangermond and President Stig Enemark at the ESRI User Conference in San Diego.



RICS President David Tuffin and FIG President Stig Enemark at the FIG Office in Copenhagen.



President Stig Enemark at the Survey of Israel with Director General Heim Srebro (left) and Joseph Kraus (right), President of ALSI.



Five Presidents at the 9th South East Asian Survey Congress: John Hannah (NZIS), Graham Marion (ISA), Pengiran Matasan (ASEAN FLAG), Stig Enemark (FIG) and Brian Coutts (CASLE).

in the afternoon. This provided a good mix keynote presentations and discussions in the workshops.

President Enemark attended the *Commission* 9 Seminar on compulsory purchase and compensation in Helsinki, Finland 6–8 September 2007 as a keynote speaker. This visit also offered a good opportunity to discuss the future co-operation with FAO with Dr. **Paul Munro-Faure**, Chief of the Land Tenure Service, FAO.

RICS President David Tuffin, Diane Dumashie, chair of RICS FIG delegation and Rob Mahoney visited the FIG office in Copenhagen 14 September 2007. A wide-ranging discussion took place covering the issues where RICS and FIG can work more closely to raise the profile of the profession worldwide - particularly in the developing world. As result of the meeting President Enemark attended the Annual Geomatics Faculty Christmas Lecture in London 13 December 2007 when he met also with the RICS President. As result a joint FIG/ RICS working group to examine the issue about how well the term "surveying" is understood in world and national institutions, and to recommend a way forward was proposed. This would feed into the crisis in education which has been identified in many parts of the world.

President Enemark visited the Israel Association of Licensed Surveyors (ALSI) and the Survey of Israel 17–21 September 2007 to discuss and agree on the arrangements around the FIG Working Week 2009 in Eilat at the Red Sea. The program included meetings with the President of ALSI **Joseph Kraus** and his council, as well an official visit to the Survey of Israel hosted by Director General **Haim Srebro**, and with participation of Deputy Director General **Joseph**

Forrai. The visit also included presentations and discussions around the well developed surveying programme at the Technicon Institute of Technology. The visit confirmed that there is no doubt that the location of the conference at the very borderline of the Red Sea will provide an excellent venue for FIG 2009 and there is no doubt that ALSI will provide a highly professional and very interesting conference.

Vice President **Paul van der Molen** attended an international workshop on *Land policies*, *land*

registration and economic development: experiences in Central Asian countries in Tashkent, Uzbekistan, 31 October – 3 November 2007. The workshop was organised by the ITC-Kadaster UNU School of Land Administration Studies

(the Netherlands), Goskomzemgeodescadastre (Uzbekistan) and DHV (the Netherlands). He addressed the audience in an opening speech, highlighting the role of surveyors in matters of land policy and registration, and explaining the commitment of FIG in this field.

2-5 October President Enemark visited Quebec Conference 2007 in Quebec, Canada, as a key note speaker. The conference was co-organised by the Canadian Institute of Geomatics (CIG), the Ordre des arpenteursgéomètres du Québec (OAGQ), Laval University (UL) and the Department of Natural Resources and Wildlife (MRNF). Daniel Roberge, Director of the Office of the Surveyor General of Quebec, Pierre Tessier, President of OAGQ; and Annick Jaton from Laval University, were the co-presidents of this international conference. The welcoming theme Histoire de voir le monde of the conference attracted around 1,200 participants especially from the French speaking surveying and geomatics community, here of 900 from the Quebec province, 150 from the rest of the all Canadian provinces and 150 participants from about 40 other countries throughout the world. Focus was on the Francophone countries with a strong attendance from the Africa. Most presentations were in French with a few in English. Simultaneous translation was provided at all sessions. In total about 150 presentations were given. A special feature during the conference was the luncheon sessions for celebration of three special events: the 100 year Anniversary of the Department of Geomatics, University of Laval, the 125th Anniversary of the Canadian Institute of Geomatics; and the 125th Anniversary of the Association of the Quebec Surveyors. The conference also included a general assembly of the Federation des Geometres Francophones.

President Enemark attended the 9th South East Asian Survey Congress and the 119th New Zealand Institute of Surveyors Conference 31 October – 2 November 2007 in Christchurch, New Zealand. The conference theme Developing Sustainable Societies was very well addressed during the entire conference that attracted around 450 participants from many overseas countries including Australia, Malaysia, Kenya, Nigeria, UK, and China. The conference made huge progress in putting the surveying profession at the forefront of sustainable development. The conference theme was addressed through a well designed combination of high profile plenary session and more thematic technical sessions with about 85 presentations. Special sessions were conducted by FIG Commission 4 on Marine Environment, chaired by Adam Greenland, and FIG Commission 5 on Geodesy supporting Sustainability, chaired by John Hannah.

UN co-operation

The 3rd Session of the World Urban Forum attracted some 10,000 participants from over 100 countries to Vancouver, Canada 18-23 June 2006. FIG was represented in the WUF by delegation led by President Holger Magel. Other representatives of FIG included Vice President Ken Allred, Ms. Jenny Whittal (South Africa) and the FIG Director, also some other FIG officers participated the conference and its preparations. Preparatory meetings included the FIG Commission 7 organised Expert Group Meeting in Bangkok and Global Land Tool Network in 2005. President Magel made a presentation in two sessions organised by UN-Habitat on the Global Land Tool Network. The third event for FIG during the week was the Networking Event Public Engagement: The Inclusive Approach organised by the Habitat Professionals Forum that was attended by more than 100 delegates in an overcrowded room.

During their visit to Rome, Italy, 11-13 September 2006 Vice President Andreas Drees and the FIG Director visited the Headquarters of the Food and Agricultural Organization of the United Nations. At the FAO they had a meeting at the Land Tenure Service with Dr. Paul Munro-Faure, Head of the Land Tenure Service, Dr. Mika Törhönen and Dr. David Palmer. In the mid term programme in land tenure services the focus is on following normative activities: land tenure in emergency work; compulsory purchase of land and compensation; state land management; low-cost land tenure security; good governance in land administration; designing post emergency land tenure institutions; and making land information accessible for the poor. Many of these topics are also included in the FIG work plan 2007–2010. The visit resulted in FAO contribution to the working week in Hong Kong and in support to commissions 7 and 9

Vice-President Stig Enemark represented FIG at the Seventeenth United Nations Cartographic Conference for Asia & the Pacific (UNRCC-AP) held in Bangkok, Thailand, 18-22 September 2006. The conference is convened every three years the last one being held in Okinawa, Japan in 2003. The conference was organised by the UN Statistics Division in Bangkok at the Economic and Social Commission for Asia and the Pacific (ESCAP). The conference provides a regional forum where approximately 200 participants (mostly heads of Mapping Agencies and Land Surveys and experts from Asia and the Pacific and other regions, as well as representatives from International and Specialized Organizations and NGO's) meet to address the common needs. Prof. Enemark presented a FIG position paper on Supporting Institutional Development in Land Administration, which presents the FIG approach in this area including a presentation of the outcome of the Special Forum on the Development of Land Information Policies in the Americas. He also gave a keynote presentation if one of the two workshops. The role of FIG with regard to participating in these conferences is

to promote professional development and facilitate achievements in the area of topographic mapping, spatial data infrastructures, and land administration systems.

President Elect Stig Enemark visited the World Bank in Washington DC and attended the workshop on Land policies and legal empowerment of the poor 31 October – 3 November 2006. The purpose of the visit was to meet with the Land Thematic Group and to discuss about the future FIG/World Bank relations. These discussions resulted in the MoU that was signed during the Working Week in May 2007. At the meeting with **Klaus Deininger, Malcolm Childress** and others it was also agreed to organise a high level conference at the Bank in November 2008.

Vice President Elect **Matt Higgins** attended the *First Meeting of the International Committee* on *GNSS (ICG)* in Vienna, Austria, 1–2 November 2006 as permanent FIG representative.

President Stig Enemark and the FIG Director attended the 21st Session of the Governing Council of the United Nations Human Settlements Programme (UN-Habitat) in Nairobi, 16–20 April 2007. The Governing Council meeting was preceded by a Business Partnership for Sustainable Urbanisation stakeholders meeting organised for the first time by UN-Habitat for private-sector partners. FIG was invited to attend this meeting on behalf of the Habitat Professionals Forum. During the week FIG representatives attended several meetings and sessions organised by the Forum and the Global Land Tool Network. They also held several bilateral meetings with UN-Habitat leaders and other partners.

The 21st Session of the Governing Council was attended by more than 900 delegates from 92 countries and joined by 230 representatives of NGOs. The five-day meeting included representatives of other UN bodies, international financial institutions, professional associations, women's and youth groups, and the private sector.



President Holger Magel together with Mrs. Anna Tabaijuka and Mr. Lars Reutersward (right) and Mr. Bengt Kjellson and Ms. Ann Jennervik from Sweden at the WUF in Vancouver to discuss FIG and UN-Habitat co-operation at the FIG 2008 in Stockholm.



Dr. Mika Törhönen (left), Dr. Paul Munro-Faure and Vice President Andreas Drees at the FAO headquarters in 2006.



Stig Enemark together with Klaus Deininger and Malcolm Childress at the World Bank in November 2006.



Mrs. Anna Tibaijuka and President Stig Enemark in discussion on future cooperation between FIG and UN-Habitat during a visit to Nairobi in April 2007.



Matt Higgins at the ICG meeting with Suresh Kibe, the Indian representative on the ICG.

President Enemark spoke at the roundtable on pro-poor land management for sustainable urbanisation, part of Global Land Tool Network activities. FIG's contribution to GLTN was at the centre of the Council's work plan for the next four years, he said, and would result in various imminent projects. President Enemark also attended the Advisory Board of the GLTN that followed the Governing Council. At the meeting with Mrs. Anna Tibaijuka, Executive Director of UN-Habitat, the close links between UN-Habitat and FIG were underlined once more. Mrs. Tibaijuka confirmed UN-Habitat commitment and her own participation in the FIG Working Week and the Joint FIG/UN-Habitat seminar on slum upgrading and innovative finance mechanisms to be held during the FIG Working Week in Stockholm in June 2008.

Vice President **Matt Higgins** attended meeting of the *International Committee on Global Navigation Satellite Systems (ICG)* in Bangalore, India, 4–7 September 2007. The ICG has been formed as a result of recommendations of the UN Committee on the Peaceful Use of Outer Space (COPUOS), as ratified by the General Assembly of the UN. The United Nations Office for Outer Space Affairs (UN OOSA) acts as the secretariat for the ICG. It should be noted that FIG has a MoU with UN OOSA.

A feature of the overall ICG meeting was the first gathering of the so-called "Provider's Forum", which involves the providers of all of the major Global Navigation Satellite Systems (GNSS) sub-systems. The global user community for GNSS was also represented with major players from many application areas. At the end of the week the ICG compiled a Joint Statement from the meeting, which included a report from the Provider's forum. That report has for the first time set out principles agreed amongst the providers about ensuring compatibility and interoperability between the various GNSS sub-systems. The next full meeting of the ICG will be held in December 2008 and hosted by the USA at NASA's Jet Propulsion Lab in Pasadena, California.



Joint Board of GIS at a meeting in Vienna in July 2006.

Sister organisations

The Joint Board of Geospatial Information Societies met at its annual meeting in Vienna 11 July 2006. The meeting was held at the University of Vienna in conjunction to the GICON conference. GICON included the Central European Cartographic Conference (54. Deutscher Kartographentag), ISPRS Technical Commission II Symposium and the 12th International Symposium on Spatial Data Handling. As ISPRS and ICA were major organisers of GICON it offered a good platform also for the Joint Board meeting. The meeting was chaired by Prof. Holger Magel, FIG President. The discussions at the Steering Committee focussed on how to intensify the co-operation between the members of the Joint Board and the policies in broadening the membership base. Interim reports of the two ad hoc committees were discussed. Especially the work programme of the ad hoc committee on capacity building in Africa was further developed. This included a strategy in finding new partners to help with this crucial issue for all African countries.

Prof. **Alojz Kopácik**, Chair of Commission 6 attended the Presidium Meeting of the International Society for Mine Surveying in Leoben, Austria 1—2 November 2006 as the focal point of FIG to ISM.

President Elect **Stig Enemark** attended the *GSDI9 International Conference on Global Spatial Data Infrastructures* held in Santiago, Chile 6–10 November 2006. The theme of the conference was *Spatial Information: Tool for Reducing Poverty*. Prof. Enemark was invited to participate in the Global and Regional Organizations Panel. The idea of this session was to present ideas of how global and regional organizations might better contribute to and apply knowledge and resources towards addressing the world's most pressing social problems.

He also chaired a joint FIG/GSDI session on spatially enabled land administration.

Andrew Leyzack, Chair of Commission 4 represented FIG at the *XVII IHO Conference* in Monte Carlo, Monaco, 7–11 May 2007.

Prof. Rudolf Staiger, Chair of Commission 5, attended the 24th General Assembly of IUGG (International Union for Geodesy and Geophysics) in Perugia, Italy 2-13 July 2007 and represented FIG at the IUGG General Assembly 4-8 July. The conference takes place every four years and IUGG consists of seven international unions all dealing with earth sciences, from which IAG (International Association of Geodesv) is directly related to FIG. The General Assembly was attended by about 4,000 scientists from all over the world, and 450 were registered as IAG participants. Prof. Staiger was very well received by Chris Rizos, the outgoing President of Commission 4 (Positioning & Applications) and the incoming Vice-President of IAG. He also attended several technical IAG sessions.

which were mainly Commission 4 related. During his stay he had the occasion to have discussions with the leaders of IAG.

President Enemark attended the meeting of the Joint Board of Geospatial Information Societies during the XXIII International Cartographic Congress in Moscow, Russian Federation, 4–10 August 2007. At the Joint Board meeting report from the ad hoc Committee on Capacity Building in Africa was discussed. The main activity in the committee has been development of the GI Knowledge Portal for Africa. The Joint Board has organised sessions on capacity building at the AARSE Conference in Cairo and at the Map World Forum in Hyderabad. Prof. Ian Dowman from ISPRS was elected as the new chairperson of the Joint Board.

Prof. **Alojz Kopácik** represented FIG at the XIII Congress of the International Society for Mine Surveying in Budapest, Hungary, 24–28 September 2007.

Permanent institutions

FIG has two permanent institutions: The International Office of Cadastre and Land Records – OICRF, www.oicrf.org, and The International Institution for the History of Surveying and Measurement – Permanent Institution of FIG (IIHSM), www. fig.net/hsm. The FIG Foundation is in addition an independent body within the Federation. The FIG Multi-Lingual Dictionary Board was closed at the end of 2006 because the work of the dictionary board came to an end after 35 years. FIG records it sincere thanks to DVW, BKG and the members of the Dictionary Board Prof. Dietmar Grünreich and Mrs. Sabine Kollenda for their outstanding work during so many years.

OICRF maintains a digital library that contains approximately 7,300 publications (1st of January 2008), which include things such as conference documents, magazine articles and reports on land administration. All of the available documents and the most recent publications can be accessed electronically at www.oicrf.org and downloaded in PDF format. In 2007 the digital library got about 480,000 hits and about 300,000 articles have been downloaded. OICRF is hosted by the Netherlands Cadastre, Public Registers and Mapping Agency.

The main activity of the IIHSM has been around the Struve Geodetic Arc. During 2007 over 1,000 hours of work has been put into the translation from French to English of the two volumes of report written by **F. G. W. Struve** Arc du Méridien de 25° 20' entre Le Danube et le Mer Glaciale, mesuré depuis 1816 jusqu'en 1855. These describe in detail all the work on the geodetic arc that was accepted by UNESCO in 2005 for inscription on the World Heritage Monument list. In total around 1,000 pages are

involved so it will be a major exercise to both recover some recompense to the IIHSM for the effort and to get it published in a form as near identical to the originals as possible. Norway and Sweden, through which the arc goes have generously contributed financially to the project. The requirement for such a translation was incorporated early on in decisions relating to the attainment of World Heritage status. Hence once the positive decision came from UNESCO it became imperative to make the huge input of effort to follow through the written support for all the practical input made by the countries involved in finding and marking the points used. The narrative sections are most informative on the work carried out over the period 1816–1855 and these are supplemented by lists of all the observations and calculations. It forms a notable historic document that will hopefully become available for use throughout the ten countries concerned.

Communication

The main tools for communication of the Federation are the *FIG web site* www.fig.net and different newsletters (both as soft and hard copies) and printed material and publications and CD-ROMs.

The web site includes e.g. the work plan of the Council and the commissions; contact details of Council members, member associations, affiliates, corporate members, academic members, commission officers and commission delegates; forthcoming events; and FIG publications and conference reports.

The FIG annual review – an overview of major activities and achievements and the main medium of external communication. This is supported by a monthly e-Newsletter which is sent free of charge to all subscribers. All commissions have also their newsletters that are published 1–2 per year and posted on the commission's web site.

In the FIG publications series the federation publishes formal policy statements and ethical, educational and technical guidelines, these are also available on the FIG home page. Proceedings of FIG conferences and of selected technical seminars sponsored or co-sponsored by FIG's commissions and member associations are published normally on a CD-ROM and they are also available on the FIG home page. FIG publishes also on the web site a monthly article that is selected from a conference or event and that is of general interest.

The monument at Hammerfest, Norway, marking the northern end of the Struve Arc.



The Joint Board of GIS met in Moscow in August 2007.



Jan de Graeve with the Reichenbach theodolite used on the Arc measure and recently rediscovered.



The FIG Foundation

The FIG Foundation – Building a Sustainable Future



The FIG Foundation is an independent body under the International Federation of Surveyors.

- The Foundation has been established for the purpose of raising funds to finance surveying education development projects and supporting young surveyors in order to build a sustainable future.
- The Foundation funds shall not be used to support the normal activities of FIG.
- The Foundation is administered by the FIG Office in Copenhagen and directed by a Board of five Directors appointed by the FIG Council.
- The Directors of the Foundation will announce every year the scholarships and grants available.

The first grants were given in 2002 and there after each year. The grants were given in 2006 to Parama Anandan (India): Educating Voluntary Organizations in Disciplines of Surveying in Various Districts of Tamilnadu; to Catherine Kariuki (Kenya): The Impact of HIV/AIDS on Land Values and the Women's Property Rights in the Context of HIV/AIDS; and to Ganesh Prasad **Bhatta** (Nepal): Institutional and Legal Aspects in Land Disputes: the Context of Nepalese Cadastral Surveying. In 2007 the grants were given to Sara J Wilkinson and Richard Reed (Australia): Student Perceptions of Professional Surveying Bodies; to Ganesh Prasad Bhatta (Nepal): Cadastral Surveying 'For the People, By the People': Developing a Participatory Model for Cadastral Resurveying in Nepal; and to Dev Raj Paudyal (India): Low Cost Pro-poor Land Management Techniques in Developing Countries: A Case Study in Nepal and India. In addition the FIG Foundation has supported meetings of surveying students (IGSM) and young professionals.

The FIG Foundation – How can I contribute?

Companies, associations, institutions, events, surveyors' groups and individuals may contribute to the Foundation by:

- Donations which will be recognised by a plaque or a certificate of different categories reflecting the sum of donation as follows:
 - platinum plaque EUR 25,000
 - gold plaque EUR 10,000
 - silver plague EUR 5,000
 - bronze plaque EUR 1.000.
- Donations to support specific projects or by offering scholarships. Donors and Benefactors may use the FIG Foundation logo to promote their project donations or scholarships.
- Voluntary donation when registering to FIG events.
- Attending social functions such as the FIG Foundation Dinners held during every FIG Congress and Working Week and other events.

FIG Definition of the Functions of the Surveyor

The definition of the functions of the surveyor as adopted by the FIG General Assembly in 2004:

Summary

A surveyor is a professional person with the academic qualifications and technical expertise to conduct one, or more, of the following activities:

- to determine, measure and represent land, three-dimensional objects, point-fields and trajectories;
- to assemble and interpret land and geographically related information,
- to use that information for the planning and efficient administration of the land, the sea and any structures thereon; and,
- to conduct research into the above practices and to develop them.

Detailed Functions

The surveyor's professional tasks may involve one or more of the following activities which may occur either on, above or below the surface of the land or the sea and may be carried out in association with other professionals.

- The determination of the size and shape of the earth and the measurement of all data needed to define the size, position, shape and contour of any part of the earth and monitoring any change therein.
- 2. The positioning of objects in space and time as well as the positioning and monitoring of physical features, structures and engineering works on, above or below the surface of the earth.
- 3. The development, testing and calibration of sensors, instruments and systems for the above-mentioned purposes and for other surveying purposes.
- The acquisition and use of spatial information from close range, aerial and satellite imagery and the automation of these processes.
- 5. The determination of the position of the boundaries of public or private land, including national and international boundaries, and the registration of those lands with the appropriate authorities.
- 6. The design, establishment and administration of geographic information systems (GIS) and the collection, storage, analysis, management, display and dissemination of data.
- 7. The analysis, interpretation and integration of spatial objects and phenomena in GIS, including the visualisation and communication of such data in maps, models and mobile digital devices.
- 8. The study of the natural and social environment, the measurement of land and marine resources and the use of such data in the planning of development in urban, rural and regional areas.
- 9. The planning, development and redevelopment of property, whether urban or rural and whether land or buildings.
- 10. The assessment of value and the management of property, whether urban or rural and whether land or buildings.
- 11. The planning, measurement and management of construction works, including the estimation of costs.

In the application of the foregoing activities surveyors take into account the relevant legal, economic, environmental and social aspects affecting each project.

FIG Members (December 2007)

*) Membership to be decided by the General Assembly in June 2008.



Member associations

Ordre des Géomètres-Experts Fonciers					
Federación Argentina de Agrimensores					
Association of Private Surveyors					
The Institution of Surveyors, Australia					
Austrian Society for Surveying and					
Geoinformation					
Bahamas Association of Land Surveyors					
Land Reform Association					
Union Belge des Géomètres-Experts Immobiliers					
Syndicat National des Géomètres-					
Topographes et Assimilés du Bénin					
Botswana Surveying and Mapping					
Association					
Brazilian Society of Cartography, Geodesy,					
Photogrammetry and Remote Sensing					
FENEA – Federação Nacional dos					
Engenheiros Agrimensores					
Brunei Institution of Geomatics					
Union of Surveyors and Land Managers in					
Bulgaria					
Association des Geometres et Topographes					
du Burkina					
Ordre National des Geometres du Cameroun					
The Canadian Institute of Geomatics					
Chinese Society of Geodesy,					
Photogrammetry and Cartography					
China Institute of Real Estate Appraisers and					
Agents CIREA					
Federation des Ingenieurs Geometres-					
Topographes					
Colegio de Ingenieros Topógrafos de Costa					
Rica					
Croatian Geodetic Society					
Association of Rural Surveying Engineers of					
Cyprus					
Czech Union of Surveyors and Cartographers					
Czech Association of Certified Property					
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Appraisers					
Appraisers Den danske Landinspektørforening					
Appraisers Den danske Landinspektørforening Egyptian Committee of Surveying and					
Appraisers Den danske Landinspektørforening					

Fiji	Fiji Institute of Surveyors					
Finland	The Finnish Association of Surveyors					
	Maanmittausalan ammattikorkeakoulu- ja opistoteknisten Liitto MAKLI ry					
France	Ordre des Géomètres-Experts					
Trance	Association Française de Topographie					
Georgia	Society of Professionals of Land Information					
	Technologies					
Germany	DVW – Deutscher Verein für Vermessungs-					
	wesen – Gesellschaft für Geodäsie,					
	Geoinformation und Landmanagement					
Ghana	Ghana Institution of Surveyors					
Greece	Technical Chamber of Greece					
	Hellenic Association of Rural and Surveying					
	Engineers					
Hong Kong SAR, China	The Hong Kong Institute of Surveyors					
Cillia	The Hong Kong Institution of Engineering					
	Surveyors					
Hungary	Magyar Földméresi, Térképészeti és					
	Távérzkelési Társaság					
Indonesia	Ikatan Surveyor Indonesia					
Iran, Islamic Republic	Iranian Society of Surveyors					
Ireland	The Society of Chartered Surveyors					
	The Irish Institution of Surveyors					
Israel	Association of Licensed Surveyors in Israel					
Italy	Consiglio Nazionale Geometri					
Jamaica	The Land Surveyors Association of Jamaica					
Japan	Japan Federation of Surveyors					
Kenya	Institution of Surveyors of Kenya					
Korea, Republic of	Korea Confederation of Surveyors					
Kosovo UNMIK	Kosova Surveyors Association					
Latvia	Latvian Associations of Surveyors					
Lebanon	Ordre des Géomètres-Topographes du Liban					
Lithuania	Lithuanian Association of Surveyors					
	Lithuanian Association of Property Valuers					
Luxembourg	Ordre Luxembourg des Géomètres					
Malaysia	Association of Authorised Land Surveyors					
	Malaysia					
Malta	Malta Institution of Surveyors					
Mexico	Colegio de Ingenieros Topógrafos A.C.					
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FIG Members (December 2007)

^{*)} Membership to be decided by the General Assembly in June 2008.

Mongolia	Mongolian Association of Geodesy and					
	Cartography					
Morocco	Ordre National des Ingénieurs Géometres-					
	Topographes					
Netherlands	Geo-informatie Nederland					
New Zealand	New Zealand Institute of Surveyors					
Nigeria	Nigerian Institution of Surveyors					
	The Nigerian Institute of Quantity Surveyors					
Norway	Norges Jordskiftekandidatforening (NJKF),					
	faglig gruppe af Tekna and GeoForum					
Palestinian Authority	Licensed Surveyors Association in Palestine					
Papua New Guinea	Association of Surveyors of Papua New					
Dhilinnings *)	Guinea					
Philippines *) Poland	Geodetic Engineers of the Philippines, Inc.					
	Stowarzyszenie Geodetow Polskich					
Portugal	Ordem dos Engenheiros, Colégio de					
Puerto Rico, USA	Engenharia Geografica Colegio de Ingenieros y Agrimensores de					
i der to Mico, OSA	Puerto Rico					
Romania	Union of Romanian Geodesy					
	Romanian Association of Private Surveyors					
Russia	Federal Service of Geodesy and Cartography					
	of Russia					
Serbia	Union of Surveying Engineers of Serbia					
Slovak Republic	Slovak Union of Surveyors and					
	Cartographers					
	Chamber of Surveyors and Cartographers					
Slovenia	Association of Surveyors of Slovenia					
South Africa	South African Council for Professional and					
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	Technical Surveyors					
Spain	Technical Surveyors Colegio Oficial de Ingenieros Técnicos en					
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Spain Sri Lanka Sweden Switzerland Syria Tanzania Trinidad and Tobago Tunisia Turkey Ukraine United Arab Emirates United Kingdom	Technical Surveyors Colegio Oficial de Ingenieros Técnicos en Topografía Surveyors' Institute of Sri Lanka Sveriges Lantmätareförening geosuisse – Swiss society of geomatics and land management Order of Syrian Engineers and Architects Institution of Surveyors of Tanzania Institute of Surveyors of Trinidad and Tobago Association Nationale des Ingenieurs Géomètres-Experts Tunisiens Chamber of Surveying Engineers of Turkey Ukrainian Society of Geodesy and Cartography Institution of Surveyors of United Arab Emirates The Royal Institution of Chartered Surveyors RICS Institution of Civil Engineering Surveyors Asociacion de Agrimensores del Uruguay American Congress on Surveying and Mapping					
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Spain Sri Lanka Sweden Switzerland Syria Tanzania Trinidad and Tobago Tunisia Turkey Ukraine United Arab Emirates United Kingdom Uruguay U.S.A.	Technical Surveyors Colegio Oficial de Ingenieros Técnicos en Topografía Surveyors' Institute of Sri Lanka Sveriges Lantmätareförening geosuisse – Swiss society of geomatics and land management Order of Syrian Engineers and Architects Institution of Surveyors of Tanzania Institute of Surveyors of Trinidad and Tobago Association Nationale des Ingenieurs Géomètres-Experts Tunisiens Chamber of Surveying Engineers of Turkey Ukrainian Society of Geodesy and Cartography Institution of Surveyors of United Arab Emirates The Royal Institution of Chartered Surveyors RICS Institution of Civil Engineering Surveyors Asociacion de Agrimensores del Uruguay American Congress on Surveying and Mapping					
Spain Sri Lanka Sweden Switzerland Syria Tanzania Trinidad and Tobago Tunisia Turkey Ukraine United Arab Emirates United Kingdom Uruguay U.S.A.	Technical Surveyors Colegio Oficial de Ingenieros Técnicos en Topografía Surveyors' Institute of Sri Lanka Sveriges Lantmätareförening geosuisse – Swiss society of geomatics and land management Order of Syrian Engineers and Architects Institution of Surveyors of Tanzania Institute of Surveyors of Trinidad and Tobago Association Nationale des Ingenieurs Géomètres-Experts Tunisiens Chamber of Surveying Engineers of Turkey Ukrainian Society of Geodesy and Cartography Institution of Surveyors of United Arab Emirates The Royal Institution of Chartered Surveyors RICS Institution of Civil Engineering Surveyors Asociacion de Agrimensores del Uruguay American Congress on Surveying and Mapping The Appraisal Institute Association of Geodesy, Cartography and					

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	Technische Universität Berlin, Geodäsie und				
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	Rural and Surveying Engineering				
	Technological Educational Institute of Athens,				
Guatemala	Department of Topography Universidad de San Carlos de Guatemala, Faculty				
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	or rigionomy, i osignaduale studies				

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Surveying and Land Management					
Surveying and Land Management					
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"Dunarea de Jos" University Galati, Cadastre, Envi- ronment Management and Protection Department					
"1 Decembrie 1918" University of Alba Iulia,					
Department of Topography and Cadastre North University Baia, Surveying Department					
Moscow State University of Geodesy and Carto-					
graphy, Economic and Land Management					
State University of Land Use Planning					
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	and Geodetic Engineering				
South Africa	University of Cape Town, Department				
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Spain	Universidad Politécnica de Madrid,				
	Escuela Universitaria de Ingeniería				
	Técnica Topográfica				
	Universidade de Santiago de				
	Compostela, Department of Agricultura and Forestry Engineering				
	Institut de Geomàtica, Integrated Geodesy and Navigation				
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Oweden	Estate Planning and Land Law				
	Department of Real Estate Science at				
	Lund University				
Switzerland	University of Applied Sciences				
	Northwestern Switzerland				
Tanzania	University College of Lands and				
	Architectural Studies, Department of				
	Land Surveying				
Turkey	Istanbul Technical University, Depart-				
	ment of Geodesy and Photogrammetry				
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	Surveying				
	Oxford Brookes University, School of				
	Built Environment				
	Sheffield Hallam University, School of				
	Environment and Development				
	University College London, Department				
	of Geomatic Engineering				
	The University of Nottingham, Institute				
	of Engineering Surveying and Space Geodesv				
	,				
	University of the West of England, Faculty of the Built Environment				
Uruguay	University of Oriental Republic of				
Oruguay	Uruguay, Surveying Institute				
USA	Ferris State University, Surveying				
OOA	Engineering				
	New Mexico State University, Surveying				
	Engineering				
	The Pennsylvania State University,				
	Surveying Program				
	Texas A&M University – Corpus Christi,				
	Conrad Blucher Institute for Surveying				
	and Science				
West Indies	University of the West Indies,				
	Department of Surveying and				
	Land Information				

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Corporate Members

Platinum level						
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ESRI	Environmental Systems Research Institute, Inc. (ESRI), www.esri.com					
INTERGRAPH	Intergraph Mapping and Geospatial Solutions, www.intergraph.com					
Leica Geosystems	Leica Geosystems AG, www.leica.com					
TOPCON	Topcon Corporation, www.topcon.co.jp/eng/					
Trimble Gold level	Trimble Navigation Ltd, www.trimble.com					
SOKKIA	SOKKIA CO., LTD., www.sokkia.co.jp					
Silver level						
BLOM INFO	BLOM ASA, www.blomasa.com					
COWI	COWI A/S, www.cowi.dk					
Grontmij	Grontmij nv, www.grontmij.com					
Bronze level	AED-SICAD Aktiengesellschaft, www.aed-sicad.com					
	Eimar Arabia Real Estate Development Co. Ltd.,					
EIMAR	www.eimararabia.com					
GIM MATERIAL DE MATERIAL DE MATERIAL DESIGNATION	GIM International – Reed Business Information – Geo, www.gim-international.com					
(GN)	IGN France International, www.ignfi.fr					
A	Josef Attenberger GmbH, www.attenberger.de					
Maron	Mason Land Surveys Limited, www.mason.co.uk					
WENS	MENSI S. A., www.mensi.com					
SCHONSTEDT NINSTRUMENT COMPANY	Schonstedt Instrument Company, www.schonstedt.com					
SEDIC	SEDIC – Sudan Engineering and Digital Information Center					
Basic level	Derinsu Underwater Engineering & Consulting,					
derinsu Undrawaten engineening	www.derinsu.com					
EEO: connexion	GEO:connexion Ltd, www.geoconnexion.com					
geoexpert	GEOEXPERT, www.geoexpert.asso.fr					
GEOInformatics Magazine for Sarreging, Varging & US Professionals	GeoInformatics, www.geoinformatics.com					
GIS	GIS Development Pvt. Ltd., www.gisdevelopment.net					
Hansa Luftbild German Air Surveys	Hansa Luftbild Sensorik und Photogrammetrie GmbH, www.hansaluftbild.de					
	Institut Cartogràfic de Catalunya, www.icc.es					
ĬLS	International Land Systems (ILS), Inc., www.landsystems.com					
EARTH RESEARCH & CONSULTING	LKN Earth Research & Consulting, www.lknconsultants.com					
Geomatics World published by	P.V. Publications Ltd., www.pvpubs.com					
Regional level						
SURVEYORS (PVT) LTD.	Associated Surveyors (Pvt.) Ltd					
CAMEROON ENGINEERING S.A.	Cameroon Engineering S.A.					
aalileo	Galileo Instruments, Inc., www.earthsurface.com					
gtz	GTZ (German Agency for Technical Cooperation), www.gtz.de					
JESPITES.	Remote Sensing Center of Environment Consulting SEPRET (Société des Etudes de Projets et Réalisation des Travaux, S.A.R.L.), www.sepret.com					

FIG Council 2007–2010

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Ms. Tine Svendstorp, Assistant, email: tine.svendstorp@fig.net tel. + 45 3318 5584 (direct)



Commission chairs 2006-2010: Yaacoub Saade (Comm. 1, on the left), Belá Markus (Comm. 2), Chryssy Potsiou (Comm. 3), Andrew Leyzack (Comm. 4), Rudolf Staiger (Comm. 5), Alojz Kopacik (Comm. 6), András Osskó (Comm. 7), Simon Adcock (Comm. 8), Kauko Viitanen (Comm. 9) and Andrew Morley (Comm. 10) at the FIG Congress in Munich, October 2006.

Commission 1 – Professional Practice

Chair: Mr. Yaacoub Saade (Lebanon)
Perception of surveying profession; professional practice, legal aspects and organisational structures; standards and certification; code of ethics and applications; under-represented groups in surveying; students and young surveyors; information technology management and professional practice; project management, quality and best practice.

Commission 2 - Professional Education

Chair: Professor **Bela Markus** (Hungary) Curriculum development; learning and teaching methods and technologies; educational management and marketing; continuing professional development; networking in education and training.

Commission 3 – Spatial Information Management

Chair: Dr. Chryssy Potsiou (Greece)
Management of spatial information about land, property and marine data; spatial data infrastructure – data collection, analysis, visualisation, standardisation, dissemination, and support of good governance; knowledge management for SIM; business models, public-private-partnerships, professional practice and administration.

Commission 4 - Hydrography

Chair: Mr. **Andrew Leyzack** (Canada) Hydrographic surveying; hydrographic education, training and CPD; marine environment and coastal zone management; data processing and management; nautical charting and bathymetric maps – analogue and digital, including electronic navigational charts.

Commission 5 – Positioning and Measurement

Chair: Professor **Rudolf Staiger** (Germany) The science of measurement including instrumentation, methodology and guidelines; the acquisition of accurate and reliable survey data related to the position, size and shape of natural and artificial features of the earth and its environment and including variation with time.

Commission 6 – Engineering Surveys

Chair: Professor Alojz Kopacik (Slovakia)
Acquisition, processing and management of topometric data; quality control and validation for civil engineering constructions and manufacturing of large objects; modern concepts for setting-out and machine guidance; deformation monitoring systems; automatic measuring systems, multi-sensor measuring systems; terrestrial laser systems.

Commission 7 – Cadastre and Land Management

Chair: Mr. András Osskó (Hungary)

Cadastre, land administration and land management; development of pro poor land management and land administration; development of sustainable land administration as infrastructure for sustainable development to underpin economic growth; applications of innovative and advanced technology in cadastre and land

administration; promoting the role of surveyors in land administration matters to the public and stakeholders.

Commission 8 – Spatial Planning and Development

Chair: Mr. Simon Adcock (Australia)
Regional and local structure planning; urban and rural land use planning and implementation; planning policies and environmental management for sustainable development; re-engineering of mega cities; public-private partnerships; informal settlement issues in spatial development, planning and governance.

Commission 9 – Valuation and the Management of Real Estate

Chair: Professor **Kauko Viitanen** (Finland) Valuation; investment in real estate and investment planning; real estate investment vehicles; real estate, development finance and land use feasibility planning; real estate economics and markets and market analyses; management of property and property systems; management of public sector property.

Commission 10 – Construction Economics and Management

Chair: Mr. Andrew Morley (United Kingdom)
Construction economics, including quantity surveying, building surveying, cost engineering and management, estimating and tendering; commercial management including procurement, risk management and contracts; project and programme management including planning and scheduling.

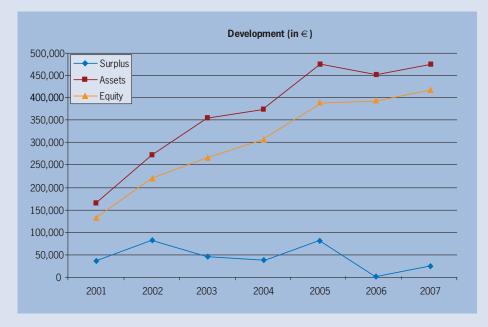
Income and Expenditure Account 2003–2007

INCOME	Result 2007 *) Euro	Result 2006 Euro	Result 2005 Euro	Result 2004 Euro	Result 2003 Euro	
Subscriptions						
Member associations	257,525	251,432	230,779	218,683	212,153	
Affiliates	12,097	8,646	5,981	4,683	3,152	
Corporate members	104,312	89,713	81,156	74,799	69,357	
Academic members	17,408	16,152	15,086	12,979	11,346	
Total	391,342	365,943	333,002	311,144	296,008	
Other income						
Sale of publications	0	143	50	35	1,034	
Financial income	15,458	8,911	8,944	8,038	6,364	
Projects	39,961	52,181	83,062	47,733	65,899	
Various	0	14	798	7,622	42,785	
Total Income	446,761	427,192	425,856	374,572	412,090	

EXPENDITURE					
Administration, FIG Office and Council	121,283	111,946	95,740	98,309	134,554
Council meetings	44,425	60,232	31,262	23,270	29,414
FIG meetings	48,758	53,609	43,326	56,639	46,781
Member support	61,062	51,585	55,799	32,469	28,102
Commission activities	64,761	64,306	35,535	43,238	41,403
Promotion	35,421	36,315	30,666	28,483	33,143
Projects	45,006	44,344	50,117	53,107	52,275
Total expenditure	420,716	422,337	342,445	335,515	365,672
Surplus of the year	26,045	4,855	83,411	39,057	46,418

^{*)} The accounts for 2007 will be finally adopted by the General Assembly in June 2008.

FIG balances 2001-2007





Ken Allred, Vice President if charge of finances, receiving the CIG President's Citation at the CIG Dinner in Toronto in May 2007.



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Including the Joint FIG-UN-Habitat Seminar on Slum Upgrading and the Importance of Financial Mechanisms

Stockholm, Sweden 14–19 June 2008

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