

**Report to the 31st General Assembly
FIG Working Week in Stockholm, Sweden, June 2008**

FIG Commission 3 – Spatial Information Management

Report of Activities 2007-2008

1. General

The main activity of Commission 3 since the Working Week 2007 in Hong Kong was Commission 3 Annual Meeting and Workshop “*Spatial Information Management – Toward Environmental Management of Mega Cities*” took place in Valencia, Spain, from 18th to 21st February 2008. This Workshop was supported by ISPRS, EARSeL, INSPIRE, EuroSDR, UN/ECE Committee on Housing and Land Management and the Working Party on Land Administration, and FIG Commission 2.

Workshop “Spatial Information Management – Toward Environmental Management of Mega Cities”, Valencia, Spain, 18-21 February 2008

The year 2007 was a turning point in human history as 50% of the world’s population became urbanized. Rapid urbanization is a phenomenon of our times. The speed and scale of current urban population growth generate important challenges for surveyors, planners and governments. This FIG Commission3 Workshop focused on how surveyors can, through SDIs and good land administration, provide reliable spatial data and the means for monitoring, planning and providing good management of the rapidly increasing urban areas.

Local Organizers were the Spanish Association of Surveyors – the Colegio Oficial de Ingenieros Tecnicos en Topografia, the Technical University of Valencia-Universitat Politecnica de Valencia, and the Royal Academy of Culture – Royal Academia de Cultura Valenciana. It was also supported by the General Direction of Cadastre of the Spanish Ministry of Finance. The FIG Commission 3 Workshop was integrated into the Spanish IX National Congress of Surveying Engineers TOP-CART 2008. In parallel, a modern technical exhibition was organized at the conference venue.

This was an ambitious and impressive event, which consisted of five joint sessions (opening session, 3 plenary sessions and closing session) and 26 parallel sessions with 124 papers in total, while all participants (Spanish and international) were distributed through all parallel sessions. In total, more than 450 Spanish and 85 international delegates participated in this event. The first plenary session was held on “*Cadastre, electronic administration and land management to support sustainable development*” and the keynote speakers were Mr Jesus Miranda, General Director of the Spanish Cadastre, Prof Stig Enemark, President of FIG and Prof Ian Williamson. The second session was on the technical aspects of “*Cartography, Photogrammetry and Remote Sensing for the benefit of society*”; the keynote speakers were Mr Alberto Sereno, General Director of the National Cartographic Institute of Spain, Prof Agustin Pichel, and Prof Ian Dowman, President of ISPRS. The third session was on “*Urban Panning aspects and the impacts of rapid urbanization*”; the keynote speakers were Mr Juan

Antonio Altes Marti, Head of the Urban Planning Department in the Valencia City Hall and Dr Chryssy A Potsiou, chair of FIG Commission 3.

According to the words of Prof Pedro Cavero, head of the Organizing Committee, the objectives of this congress were “...to emphasize before the Authorities and the Society the role of our profession at national and international level, to give to our colleagues the opportunity of rejoining, knowing new technologies and professional realities inside and outside Spain, to show our present engineering profile and the incoming future, to enhance the need of making the property unit, in its widest meaning, the main future of our profession as a core unit of national and regional SDIs, to show the future of surveying education and Spanish Universities in terms of the Bologna declaration, to promote the important role of our international associations FIG and ISPRS and the collaboration with sister associations like UN and World Bank for the welfare and development of the developing countries and the countries in transition, and through the FIG Commission 3 Workshop to know an essential field, not only for our profession but for the society, environment and quality of life as well, to show the enormous humanitarian component of our profession and to increase if possible our love and dedication to surveying and to everything surveying represents to us and to the society which we serve.”

More than 78 international delegates registered for the Commission 3 Workshop, coming from 28 countries: Albania 2, Australia 1, Azerbaijan 2, Bulgaria 2, Belgium 5, Canada 1, China 2, Denmark 1, Finland 1, Germany 7, Greece 13, Hungary 3, Israel 3, Italy 1, Kenya 1, Latvia 1, Lithuania 1, Lebanon 1, Netherlands 1, Norway 2, Poland 2, Romania 2, Russia 3, Spain 7, Sweden 3, Turkey 4, UK 5, USA 1.

Commission 3 delegates were welcomed by Prof Pedro Cavero, head of the organizing committee, Jeronimo Miron, UN/ECE WPLA Spanish delegate, FIG President Prof Stig Enemark, and Dr Chryssy A Potsiou, chair of FIG Commission 3. Invited Commission 3 keynote speakers were Prof Stig Enemark, President of FIG, who spoke on the subject “Promoting Problem Solving Skills”, Prof Ian Dowman, President of ISPRS, who spoke on “3D City Models”, Michael Gould who addressed “the INSPIRE initiative and its Implications”, Kevin Mooney who addressed the “EuroSDR’s research activities in urban spatial data collection, management and delivery”, Dr Ana Maria Cruz who presented the “Results of the 2008 Natech Workshop: Assessing and Managing Natech Risks”, and distinguished delegates representing European Cadastral and Mapping Agencies whose presentations included the latest achievements in the field of multipurpose cadastre and SDI research and best practice in city environmental management. Once again, Commission 3 has attracted a large number of distinguished FIG academics and researchers who have coordinated their academic research on the Commission 3 selected topics. The optional double blind peer review of submitted papers was applied for a second year in a Commission 3 Workshop. Nine papers received successful peer review for this Workshop.

Besides the five joint sessions, this Commission 3 Workshop had eight more technical sessions with 44 presentations in all, focused on the Workshop’s topic. Technical sessions addressed “SIM and Urban Development”, “City Management Case Studies”, “SDIs for Management of Mega Cities and Increasing Urban Areas”, “SIM and Spatial Planning”, “SIM in Risk Management and Cultural Heritage Aspects Related to Urban Areas”, “Environmental Monitoring”, “Technical Aspects for Urban Management”, and “Educational Issues Related to Problem-based Learning”. The Workshop’s resolutions will be available

soon. All papers and resolutions will be published in the Workshop's proceedings and on the FIG website. An additional specific publication of peer-reviewed papers will be published soon.

The Workshop's activities were augmented by a series of social events including the opening cocktail party provided by the exhibitors, lunches at the university restaurant, the Commission 3 dinner partially sponsored by Commission 3, an impressive reception provided by the local authorities at the Valencia City Hall, a visit to the art gallery where an exhibition of old maps was on view, a sight-seeing event for the accompanying persons program, and a glamorous gala dinner at Astoria hotel offered by the organizers. Nice gifts were offered to all delegates by the local organizers at the gala dinner.

Follow-up

This was the second FIG Commission 3 annual Workshop and meeting of the 2007-2010 period. The next Workshop (follow-up) will be held in Germany, in February 2009 with the topic "*Spatial Information for Sustainable Management of Urban Areas*". More detailed information regarding local organizers and the specific topics will be published soon.

2. Working Groups

Working Group 3.1 – eGovernment for eCitizens

Chair: Kari Strande (Norway)

- Co-Chair: Peter Laarakker (the Netherlands)
- active WG-members (Rob Mahoney (UK), Robin A. McLaren (UK), Daniel Roberge, (Canada), Uzo Okafur (also vice chair of WG3.3), Jes Ryttersgaard (DK), Jens Hollænder (DK), Tarja Myllymäki (SF), Jan Bares (CZ), Bela Markus (HU), Bo Lauri (Se), Gerhard Muggenhuber (A), Khaled Nabbout)

WG3.1. members have encouraged speakers to participate and present papers to FIG and other GI meetings. Examples of e-Government projects and programs can be found on the websites of FIG Workshops and Working Weeks e.g., Commission 3 Workshop Istanbul 2002, Working Week Paris 2003, Regional Conference Morocco 2003, Working Week Athens 2004, Workshop on GeoPortal solutions Warsaw 2004, Workshop on e-Land administration Vienna 2004, Regional Conference Jakarta 2004, Workshop on eGovernment Cairo 2005, 2006 Budapest (Booklet report by Bela Markus), Congress Munich 2006, Comm. 3 Workshop Athens 2007, Working Week Hong Kong 2007, Regional Conference Costa Rica 2007, Comm. 3 Workshop Valencia 2008, and Working Week Stockholm 2008. A list of useful papers and publications on the topic will be provided soon. An attempt is made to provide links to eGovernment web sites where SIM is an important part. (e.g., Links to global/regional assessment sites, UN, WB, EU, Links to some national sites).

The production of a WG3.1. CD including all the above mentioned work is in process.

Lessons learned...

The importance of political support and commitment

- to insure inclusion and interaction
- to secure data sharing and distribution
- to facilitate equal opportunities

- to invite for participation

Working Group 3.2 – Spatial Data Infrastructure (SDI)

Chair: Paul Kelly (Australia)

Vice chair: Hartmut Mueller (Germany)

A specific work item that has been selected is use of SDI in managing mega cities. A working group has been set up to identify relevant spatial tools that will support development and use of SDI by city authorities.

Based on cooperation with other working groups and commissions this WG will:

- Support discussion on the role of local and regional SDI in managing mega cities
- Identify institutional, policy and legal frameworks that can be incorporated in SDI to address mega city issues
- Identify specific technical innovations in SIM that can improve management of mega cities

The working group has adopted a pragmatic approach, based on working with administrations in mega cities to identify key problems they face both now and in the future; use an international network of experienced spatial information practitioners to identify potential solutions; and then develop materials that provide a practical guide to international best practice in the use of SDI to better manage our cities. Commission 3 plans to provide a major report on its findings at the FIG Congress in Sydney in 2010.

The methodology adopted by the working group has three stages:

1. Review SDI developments in existing mega cities, identify current problems and issues and use of SDI (by August 2008).
2. Document case studies, including lessons learned about solutions to problems (by April 2009).
3. Develop a toolkit for use of best practices in SDI in managing mega cities, including frameworks for policy, institutions, legal and technical (by April 2010).

The working group has developed a questionnaire on the needs and use of SDI by mega cities. The questionnaire and covering letter signed by the President of FIG are currently being sent to a shortlist of mega cities, including Delhi, Istanbul, London, Mexico City, Hong Kong and Seoul.

The working group will firstly make use of voluntary time of its members and seek to involve administrators in selected mega cities. However, the work plan can be accelerated and encompass more cities with a modest injection of funds from interested bodies. A submission has been prepared to the World Bank. The working group can provide specific proposals to bodies expressing interest in aspects of the work plan.

Working Group 3.3 – Multi Dimensional Aspects in Spatial Information Management

Chair: M. Roic (Croatia)

The Working Group 3.3 (WG) was formed in 2006. Our goals are several fold: (1) Expansion and development of existing data models; (2) Increase the involvement of surveyors in development of data models; and Disseminate accumulated knowledge and experience. The WG was structured to include members with technical expertise as well as participants' familiar with the development of SDI.

In pursuit of these goals, the WG has met first time in Athens in early 2007. This meeting have provided an opportunity for the WG not only to analyse issues directly related to mentioned goals, but also to identify a number issues for cooperation with WG2. The members of the WG will also participate in Stockholm in 2008 and present papers covering technical and multidimensional aspects of SDI in order to assure broader dissemination of the WG's work.

3. Cooperation

3.1 Cooperation with other commissions

Some cooperation is established with Commission 2 for the Workshop in Valencia. More cooperation is under discussion with Commission 9 and with Eurogeographics in future.

3.2 Cooperation with international organizations

Commission 3 is closely cooperating with UNECE Working Party on Land Administration and with Committee on Housing and Land Management especially on the issue of handling Informal Settlements and managing unplanned urban development.

4. Events

2007

- FIG Com3 Workshop, Sounio, Greece, March
- FIG Working Week 2007, Hong Kong, SAR, May.
- 6th FIG Regional Conference, San José, Costa Rica, November.

2008

- Commission 3 Annual Meeting and Workshop “Spatial Information Management – Toward Environmental Management of Mega Cities”, Valencia, Spain, 18-21 February 2008
- FIG Working Week 2008, Stockholm Sweden, 14-19 June 2008.
- UNECE WPLA Workshop in Bergen, Norway, April 2008
- VSMM 2008, 14th International Conference on Virtual Systems and Multimedia, dedicated on “Digital Heritage: our HI-tech STORY for future”, 20-26 October 2008, Cyprus

5. Communication and Publications

- The proceedings of the 2007 and 2008 Workshops are in publishing process.
- SaLIS journal will also publish a special issue with the peer-reviewed papers of the Valencia Workshop.
- Commission 3 delegates are working on a publication on SIM for Mega Cities

Dr. Chryssy Potsiou

Chair of FIG Commission 3

March 2008

Commission web site: www.fig.net/commission3