

First FIG and GSDI Joint Conference, Cairo

From Pharaohs to Geoinformatics

The FIG Working Week 2005 and the 8th International Conference on Global Spatial Data Infrastructure were held in the Egyptian metropolis of Cairo from 16th to 21st April 2005. This major event in the geo-spatial arena was well prepared and organised under the leitmotif 'From Pharaohs to Geomatics'.

By Jacques Sipkes and Christiaan Lemmen, contributing editors, GIM International

Whilst FIG and GSDI represented the international angle, the conference was organised by the Egyptian Committee for Surveying and Mapping (ECSM) and the Egyptian Survey Authority (ESA) taking a leitmotif inspired by Egyptian survey and land administration traditions built up over more than four thousand years. Opening speeches reflected admiration for this history. More than nine hundred delegates representing eighty countries met in five plenary sessions, 51 technical sessions and workshops and more than four hundred papers and posters were presented.

Have and Have-nots

Mrs Dr Dalal Alnaggar welcomed delegates on behalf of the local organising committee. Conference then heard FIG president Prof. Holger Magel and GSDI

president Mr Mukund Rao, Prof. Hoda Barka representing the Egyptian Ministry of Communication and Information Technology and Prof. Muhmud Abu Zeid, Minister of Water Resources and Irrigation. Speakers emphasised the essential of equal sharing of resources amongst the world population, which naturally included equal sharing of geospatial information. Without this there was no future for the world; the underlying thought was 'Share the Earth, knowledge and the future'. Mr Mukund Rao listed many GSDI-sponsored projects in the world, stressing the need for geo-information disaster-management support. He too urged bridging of "the divide between the have and the have-nots." Prof. Dr Holger Magel in his own impressive opening speech discussed better help for countries hit by natural disaster,

The FIG Organisation

FIG is the only international organisation representing all surveying disciplines, including cadastre and land management, spatial information management, positioning and measurement, hydrography, engineering survey, spatial planning, evaluation and real estate management, construction economics and management. With member associations and individuals in more than 110 countries, it represents more than 230,000 survey professionals.

security of tenure, and the role of civil society and NGOs in a changing world. "If we do not succeed in improving living conditions in developing countries, developed countries will have no future either."

Narrow the Gap

Rich countries devoted 220 times more money to research than did poor countries, said Dr Ismail Serageldin, director of the Bibliotheca Alexandria in Egypt. The real challenge in the (geospatial) information revolution was to narrow the research gap between rich and poor countries; there should be no scientific apartheid. Jack Dangermond, ESRI, elaborated on the fast increasing importance of internet GIS portals for SDI. These should be geo-open interoperable servers whereby metadata catalogs fuelled GIS portals, resulting in hundreds of geo-portals becoming part of a geo-vision: a geospatial one-stop USA portal that eliminated redundancy. The new technology needed for this had nothing to do with GIS, but much more with Web technology: "Google your geo-spatial requirements," he reiterated. That was what ESRI had done in joining forces with Google to create a Geospatial One Stop (GOS) (for details see ESRI item on GOS in



The chairs of the Netherlands Cadastre, Mrs Dorine Burmanje and the Egyptian Survey Authority, Gen. Hesham Nasr (photo: John Horn).



The promotion campaign to bring FIG 2010 to Sidney proved successful.

our Business News pages this month). These geo-enabled web-servers would increase national awareness of geo-spatial elements, creating new communities and urging the need for e-government. Mapping organisations would not take the lead in developing these applications, he warned.

Ms Preetha Pulusani of Intergraph seemed to agree on all these points, mentioning another additional phenomenon: "The War of the (exchange) Formats." Paul Munro-Faure of the UN Food and Agriculture Organization (FAO) identified his organisation as a substantial player in

SDI in relation to food insecurity, climatic change, harvest forecasting and disaster management.

Land rights, land-use regulations, land valuation and taxation were grouped under land administrations, had a spatial component and were a key component of SDI; access to land was crucial to eradicating poverty and hunger and rural landlessness was often the best predictor for this. Well-integrated spatial data increased speed of action and reduced costs.

The need for implementation of pro-poor land administration tools for secure tenure was further underlined by Dr Clarissa Augustinus, UN Habitat. Given global slum statistics - two billion slum dwellers by 2030 - this was an urgent matter; there was too much current focus on the development of land policies. Mrs Dorine Burmanje, chair, Netherlands Cadastre, Public Registers and Mapping Agency, highlighted the importance of data sharing, data-integration and interoperability standards for reorganisation of government datasets into authentic registrations; duplication would be avoided by forcing government organisations to use source data from these. In common with many other congress speakers she recognised land administration as a key building block in national spatial data infrastructure. Mohamed Mosaad Ibrahim, ex-

chair of the Egyptian Survey Authority, gave an impressive overview of the history and developments within the Egyptian Cadastre.

Parallel Sessions

The congress began with so-called pre-congress workshops covering standards, virtual academy and the surveying/geoinformatics community, history of surveying, mobile mapping and e-government for e-citizens. The two gold sponsors of the congress held an 'ESRI Seminar, GIS: The Business of National Mapping' and 'An Intergraph vision, technology and implementation seminar.' Both companies demonstrated comprehensive technical capabilities in support of development and implementation of SDI, bridging surveying and SDI. SDI was problematic and there was a need for business and marketing models here, but the professionals were so busy that the importance of communicating its relevance was not optimally covered.

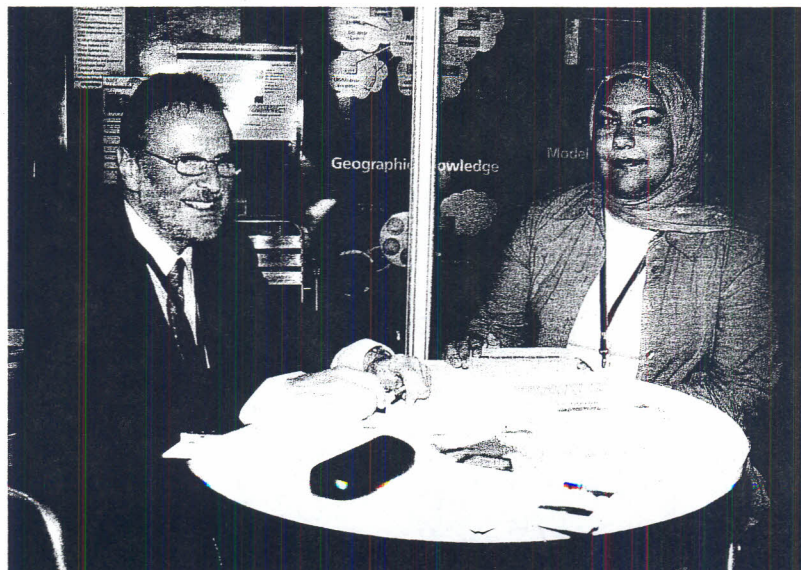
Prof. Ian Masser's book, *GIS Worlds, Creating Spatial Data Infrastructures* was launched during the conference (ESRI Press, 2005 Redlands, California, USA; ISBN 1-58948-122-4).

ATREF Meeting

An ATREF steering committee meeting chaired by Dr Wilber Tichilo was held on 18th April 2005 (An article by Richard Wonacott on this initiative appeared in *GIM International*, May 2005,

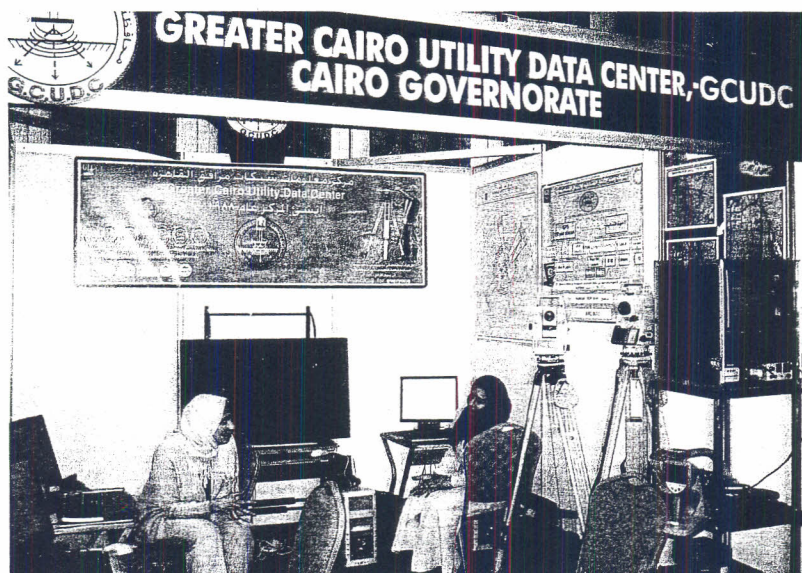
Global Spatial Data Infrastructure

GSDI supports ready global access to geographic information achieved through co-ordinated action by nations and organisations. These promote awareness and implementation of complementary policies, common standards and effective mechanisms for development and availability of interoperable digital geographic data and technologies to support decision-making at all scales, for multiple purposes. Over fifty nations have participated in previous GSDI conferences, of which the Cairo conference is the eighth.



Prof. Masser signs his new book (photo: John Horn).

pp 35-37). AFREF is a planned surveying reference system for all 53 African countries, the principles of which were presented and adopted by all African nations during the United Nations Economic Commission on Africa (UN ECA-CODI) meeting at Addis Ababa, Ethiopia in May 2003. Organisations supporting this initiative are NEPAD, UN ECA-CODI, the United Nations Office of Outer Space and the UN Millennium Goals for Africa. Another meeting is planned for 2006 in the Republic of South Africa to formulate an AFREF action plan. The aim is to set up data holding centres in five regions covering the whole continent: North, West, Central, East, and Southern Africa, and invitations will be sent to all mapping (related) organisations. The EUREF system in Europe and the SURDAS system in South America will serve as examples. According to Dr Ottichilo a good geodetic network formed the basis of GSDI, since all other applications were based on it. AFREF will also be very important for civil aviation. The big question is now how to get the initiative up and running and keep it going? A sound cost estimate should be produced and a good spacing of receiving stations will have to be established; distribution of data should be fast in order to be useful. Some documents in PDF file will soon become available dealing with many of these issues; check UN ECA-CODI and the Regional Centre in Nairobi, Kenya websites.



The exhibition area.

Trade Exhibition

About two dozen exhibitors displayed products and services, ranging from foreign ESRI, Federal Geographic Data Committee FDDC USA and Trimble, to Egyptian Government authorities and private firms. One such well-positioned private company is GEOMAP Consultants of Cairo (Heliopolis), established in 1994 to work in the fields of mapping, remote sensing (PCI Geomatics) and GIS and now an experienced producer of topographic and thematic maps. The company is also involved in capacity building, technical support and technology-transfer within Egypt and other Arab and African regions. Another Egyptian firm present was the 1990-founded Survey Systems, selling survey, GPS,

hydro-survey equipment and services. The Egyptian geospatial community is now reaching maturity.

Joint Meetings

A joint meeting of FIG and GSDI makes sense. During the closing ceremony Prof. Magel highlighted how developed countries must help the developing. Surveyors and the geo-spatial community had to ensure engagement with the information society, including in the World Summit on the Information Society (WSIS) to be held in November 2005 in Tunisia. Collaboration with sister organisations had to be further intensified via the Joint Board of Spatial Information Societies.

The next, 23rd International FIG Congress will be held in Munich, Germany, from 8th to 13th October 2006, whilst the GSDI delegates elected Santiago de Chile in Chile for their GSDI-9 conference in 2006, to be jointly organised with the local IGM, the Chilean Military Mapping Authority (see websites).

Websites

www.fig.net/cairo
www.gsdi.org
www.iscgm.org
www.ungiwg.org
www.digitalearth.net.cn
www.gdin.org
www.icaci.org
www.geomap.com.eg
www.igm.cl/gsd9◆



Discussions at the ESRI stand.