





FIG Working Week 2005 and GSDI-8

From Pharaohs to Geoinformatics

Cairo, Egypt 16-21 April 2005

TECHNICAL PROGRAMME

Pre-Conference Workshops

Workshop 1 – Standards Workshop – Standards into Action

Saturday, April 16, 2005 09.00 – 12.30

 $WSS\ 1\ Standards\ Workshop-Part\ I-Standards\ and\ How\ They\ Can\ Contribute\ to\ SDI$

Venue: Blue Nile

Commission: FIG, GSDI and ISO TC211

Advancing SDIs – The Role of Standards (9:00-9:30)

Chair: Iain Greenway, FIG

Opening will be given by IainGreenway on the subjects to be covered. Each speaker will then give a high level overview as to why standards are a critical subject. Presentations by:

- FIG, Iain Greenway
- GSDI, Doug Nebert
- ISO, Olaf Ostensen
- OGC, Sam Bacharach

Making Sense of Standards (9:45-11:45 incl. coffee break)

Chair: Sam Bacharach, OGC

A discussion of key SDI standards and how organizations can and should use them to build out local, regional and global SDI.

A discussion of major standards being applied to address improved data sharing and enhanced decision-making. This will include several short standards vignettes that reinforce the application of standards and best practices to meet a range of needs. Presentations by:

- GML Clemens Portele
- Metadata (ISO 19115 etc) Dave Danko
- Development of Common Geospatial Data Standards Doug Nebert

Filling the Gaps (11:45-12:30) Chair: Henry Tom, ISO TC211

A discussion of plans and work in progress to address urgent challenges being identified by the community, and what more is needed.

The ultimate goal is to have this panel be fully interactive and driven by questions from the audience. Panel to include:

- Olaf Ostensen, Chair, ISO/TC211
- Iain Greenway, Chair, ISO/TC211 Focus Group on Data Providers
- Doug Nebert, FGDC/GSDI
- Sam Bacharach, OGC
- Dave Danko. ESRI

Saturday, April 16, 2005 14:00-17:30

WSS 2 – Standards Workshop – Part II – Taking the Step to Implementation

Venue: Blue Nile

Commission: FIG, GSDI and ISO TC211

Implementing Standards to Resolve SDI Issues (14:00-16:00)

Chair: Doug Nebert, FGDC/GSDI

Detailed presentations illustrating the integration of standards, specifications and related SDI best practices. This module will also include a discussion of how standards are being positioned within the context of local, national and regional policy. The goal is to provide some real experience with people from operational entities using standards in SDI development and operations. Presentations by:

- INSPIRE Stephen Peedell
- SDI at the sub-national level in Spain Michael Gould / Jordi Guimet
- The usage of OGC standards Sam Bacharach

Technical Programme 2/49

Background paper:

Iain Greenway (Ireland): Standards – Are They Relevant in a Surveyor's World?

Taking Action – Key Resources and Players for Advancing Implementation of Standards (16:00-17:30)

Chair: Michael Gould

Key resources and players for advancing implementation of standards.

The aim is to give examples of good reference manuals and other tools that people can find on the web. Michael Gould, as the moderator will give several examples like books, URLs, open source software, special curricula that may help people in getting started. Presentations by:

- Textbooks and the like Michael Gould
- GSDI Cook book **Doug Nebert**
- ISO/TC211 resources **Henry Tom**
- OGC material/ test beds Sam Bacharach
- Broader standards initiatives (SOAP etc) Sam Bacharach

Followed by open discussion as to what more is needed

Wrap up Closing

Workshop 2 – Virtual Academy and the Surveying/Geoinformatics Community

Saturday, April 16, 2005 09.00 – 10.30

WSVA 1 – Virtual Academy I

Venue: Morgana

Commission: FIG 2 and GSDI

Chair: Prof. Dr. Bela Markus, Hungary

WSVA1.1 **Bela Markus** (Hungary): Learning Pyramids

WSVA1.2 **Leonhard Dietze** and **Hartmut Müller** (Germany) and **Klaus Böhm** (USA): Graphical Interactive eAssessment in Surveying

WSVA1.3 **Leos Mervart** and **Ales Cepek** (Czech Republic): Geoinformatics Study at the Czech Technical University in Prague

Technical Programme 3/49

Saturday, April 16, 2005 11:00-12:30

WSVA 2 – Virtual Academy II

Venue: Morgana

Commission: FIG 2 and GSDI

Chair: Prof. Dr. Bela Markus, Hungary

WSVA2.1 Moustafa A. Baraka (Egypt) Geoinformatics E-learning In Egypt

WSVA2.2 **Venkateran Ravichandran** (India): e –Learning or Virtual Learning Through VSAT

WSVA2.3 **David Forrest**, **Sarah Cornelius** and **Andrew Elcock** (United Kingdom): Experiences with a Virtual Placement

WSVA2.4 **Volker Schwieger** and **Thilo Kaufmann** (Germany): Teaching Geodata Acquisition - E-Learning Experiences and Sustainability

Workshop 3 – History of Surveying

Saturday, April 16, 2005 09.00 – 10.30

WSHS 1 – History of Technology

Venue: White Nile

Commission: FIG History Chair: **Jan de Graeve**, Belgium

WSHS1.1 Ken Allred (Canada): Survey Art – An Interesting Subject

WSHS1.2 David A Wallis (United Kingdom): History of Angle Measurement

WSHS1.3 **Dieter Lelgemann** (Germany): Alexandria in Egypt, the Native Town of the Natural Sciences

Saturday, April 16, 2005 11.00 – 12.30

WSHS 2 – Ancient Egypt

Venue: White Nile

Commission: FIG History

Chair: Jim R. Smith, United Kingdom

WSHS2.1 **John F. Brock** (Australia): Four Surveyors of the Gods: In the XVIII Dynasty of Egypt– New Kingdom c 1400 BC

Technical Programme 4/49

From Pharaohs to Geoinformatics FIG Working Week 2005 and GSDI-8 Cairo, Egypt April 16-21, 2005 WSHS2.2 Joel Paulson (USA): Surveying in Ancient Egypt

WSHS2.3 **Jan de Graeve** (Belgium): The Belgian Contribution to the 30th Meridian Arc in Africa

Saturday, April 16, 2005 14.00 – 15.30

WSHS 3 - Arc of the 30^{th} Meridian

Venue: White Nile

Commission: FIG History

Chair: David A. Wallis, United Kingdom

WSHS3.1 **Jim R. Smith** (United Kingdom): The Arc of the 30th Meridian North of the Equator

WSHS3.2 **Tomasz Zakiewicz** (South Africa): The Cape Geodetic Standards and Their Impact on Africa

General Discussion

Visit to the 30th Arc – Monday April 18, 2005 from 15:30 to 17:30

Workshop 4 – Mobile Mapping Technology

Saturday, April 16, 2005 16.00 – 18.30

Workshop on Mobile Mapping Technology

Venue: White Nile Commission: FIG 5

Co-sponsored by: Applanix Corp. and Intermap Technologies Corp

Chair: Prof. Dr. Naser El-Sheimy, Canada

MMT1.1 Dr. Naser El-Sheimy, The University of Calgary: Introduction to the Workshop

MMT1.2 Dr. **Naser El-Sheimy**, The University of Calgary, VISAT – A Digital Mobile Mapping System for Highway Mapping and GIS Applications

MMT1.3 **Hugh MacKay**, Intermap Technologies Corporation: High Accuracy, High Resolution Digital Terrain Information from Airborne Interferometric Radar

MMT1.4 Dr. **Mohamed Mostafa**, Applanix Corporation: Applanix Digital Sensor System (DSS): An Overview

Technical Programme 5/49

Workshop 7 – e-Government for e-Citizens

Saturday, April 16, 2005 16.00 – 19.00

WSE 1 – Workshop e-Government for e-Citizens

Venue: Morgana

Commission: FIG 3 WG3.1 and GSDI

Chair: Kari Strande, Norway

State of the Art on e-Government Initiatives

Presentations and demonstrations of cases from various parts of the world. Cases where spatial data distribution and public web access to spatial data are essential. Spatial data as a tool in decision making and as a tool for public participation in decision processes. There will also be presentations from system suppliers.

Kari Strande, Chair of FIG WG3.1: State of the Art on e-Government Initiatives – Introduction to the Workshop

Papers:

WSE1.1 **Olaf Østensen** (Norway): eGovernment for eCitizens - Case from Norway and a short visit to Europe

WSE1.2 Jens Hollænder and Jes Ryttersgaard (Denmark): eGovernment in Denmark

WSE1.3 Peter M. Laarakker (The Netherlands): E-government Kadaster NL and EULIS

WSE1.4 **Phillip Rudd** (Australia): e-Government for e-Citizens – Case Study for the Northern Territory of Australia – Integrated Land Information System – ILIS

WSE1.5 Kari Strande (Norway): Case from Asia after Tsunami – Disaster Information and Management

Presentation from Peter Bartak, Intergraph

Round table with discussions, questions, comments from the speakers and other participants

Workshop 5 – ESRI Seminar – GIS: The Business of National Mapping

Sunday, April 17, 2005 09:00-16:30

Venue: Teeba Commission: ESRI

Technical Programme 6/49

Workshop 6 – An Intergraph vision, technology and implementation seminar

Sunday, April 17, 2005

09:00-16:30Venue: Nefertiti

Commission: Intergraph Mapping and Geospatial Solutions

Opening Ceremony

Sunday, April 17, 2005 17:00-19:00

Venue: Cleopatra Ballroom

Opening Ceremony

- Welcome by the Local Organising Committee, Dr. Dalal Alnaggar
- Cultural programme
- Welcome of the Local Organising Committee, Dr. **Ahmed Fouad El-Sheikh**, Chair of the Organising Committee and President of the Egyptian Committee on Surveying and Mapping (ECSM)
- Welcome greeting of the Minister of Communication and Information Technology, Dr. **Tarek Kamel**, presented by Dr. **Hora Baraka**
- Welcome address of Minister of Water Resources and Irrigation, Prof. Dr. Mahmoud Abu Zeid
- Welcome address of Dr. Mukund Rao, President of GSDI
- Prof. **Holger Magel**, President of FIG: From Pharaohs to Geoinformatics Shaping the Change
- Opening of the Conference

Welcome reception

Technical Programme 7/49

Technical Sessions

Monday, April 18, 2005 09:00-10:30

Plenary Session 1 – From the Pharaohs to Geoinformatics

Venue: Blue and White Nile Commission: FIG and GSDI

Chair: Prof. Dr.-Ing. **Holger Magel**, President of FIG Rapporteur: Prof. Dr. **Mostafa Radwan**, The Netherlands

PS1.1 Dr. Ismail Serageldin, Director of Bibliotheca Alexandria, (BA)

PS1.2 Mr. **Jack Dangermond**, Founder and President of the Environmental Systems Research Institute (ESRI): Bridging the Gap between Geomatics and Surveying

PS1.3 Ms. **Preetha Pulusani**, President, Intergraph Mapping and Geospatial Solutions: Making Smart Decisions

Monday, April 18, 2005 11:00-12:30

TS 1 – SDI and Cadastre

Venue: Blue Nile

Commission: FIG 7 and GSDI Chair: Mr. **András Osskó**, Hungary

Rapporteur: Mr. Francis Gabele, Belgium

Papers:

TS1.1 Ian Williamson, Donald Grant and Abbas Rajabifard (Australia): Land Administration and Spatial Data Infrastructures

TS1.2 **Stig Enemark** (Denmark) and **John. R. Parker** (Australia): The Development of Land Information Policies in the Americas

TS1.3 Arbind Man Tuladhar and Mostafa Radwan (The Netherlands), Fatma Abdel Kader and Samir El-Ruby (Egypt): Federated Data Model to Improve Accessibility of Distributed Cadastral Databases in Land Administration

TS1.4 Paul van der Molen (The Netherlands): Authentic Registers and Good Governance

TS1.5 **Eugene C. Onyeka** (Nigeria): Multipurpose Cadastre: An Under-utilized NGDI Dataset.

This paper has not been presented in the conference.

Technical Programme 8/49

Posters (short presentations):

TS1.6 **Momath Ndiaye** (Senegal): Case Studies in SDI Components (Geodetic Datum, Data Transformations, Cadastre, Planning etc.)

Monday, April 18, 2005 11:00-12:30

TS 2 – Spatial Portals and e-Government

Venue: White Nile

Commission: GSDI and FIG 3

Chair: Prof. Dr. **Mostafa Baraka**, Egypt Rapporteur: Ms. **Kari Strande**, Norway

TS2.1 **Jeanne Foust** (USA) **Winnie S.M. Tang** (Hong Kong SAR, China) and **Jan Selwood** (Japan): Evolving Infrastructure: Growth and Evolution of Spatial Portals This paper was presented by **David Danko**, ESRI, USA

TS2.2 Joep Crompvoets, Arnold Bregt, Floris de Bree, Pepijn van Oort, Bastiaan van Loenen (The Netherlands), Abbas Rajabifard and Ian Williamson (Australia): Worldwide (Status, Development and) Impact Assessment of Geoportals

TS2.3 Mostafa Radwan (The Netherlands), Yaser Bishr (USA), Badr Emara, Alaa Saleh and Rania Sabrah (Egypt): Online Cadastre Portal Services in the Framework of E-Government to Support Real State Industry in Egypt

TS2.4 **Sohir M. Hussein** (Egypt): The Role of ESA in Building the Egyptian Spatial Data Infrastructure (ESDI) Towards the Electronic Government (E-gov.) This paper has not been presented in the conference.

TS2.5 **Tomaž Petek** (Slovenia): Spatial Information System for Good Governance in Slovenia

This paper has not been presented in the conference.

Monday, April 18, 2005 11:00-12:30

TS 3 – GNSS I

Venue: Babylon I&II Commission: FIG 5

Chair: Prof. Dr. Naser El-Sheimy, Canada

Rapporteur: Dr. Mohamed El-Maghraby, Egypt

TS3.1 **Bruno Razza** (Italy): Recent Developments in the Sector of Navigation Satellite System Reference Stations (GNSS) and Possible Links with the Typical Surveying Measurements Carried Out by the Surveyors

Technical Programme 9/49

- TS3.2 **Volker Schwieger** and **Andreas Gläser** (Germany): Possibilities of Low-Cost GPS-Technology for Precise Geodetic Applications
- TS3.3 **Tayeb Tachallaït, El Hassan Benaïm** et **Lahcen Bahi** (Maroc): Developpement d'Une Nouvelle Methode de Traitement des Observations GPS: Organigramme du Logiciel IAVGPS
- TS3.4 **Y. Al Marzooqi, H. Fashir** and **Tarig Babiker** (Dubai, United Arab Emirates): Establishment of Dubai Virtual Reference System (DVRS) National GPS-RTK Network
- TS3.5 **Yang, Chul Soo** (Republic of Korea): Updating and Re-establishment of Cadastral Control Points in Korea by Using GPS Observations

Monday, April 18, 2005 11:00-12:30

TS 4 – NSDI

Venue: Osiris

Commission: FIG 3 and GSDI Chair: Dr. **Mohsen Badawy**, Egypt Rapporteur: Dr. **Chryssy Potsiou**, Greece

Papers:

- TS4.1 **Gábor Remetey-Fülöpp** (Hungary): Paving the Way for the Implementation of the NSDI in NGO-Government Partnership
- TS4.2 Gülgün Özkan, S. Savaş Durduran, Ali Erdi and Bilal Girgin (Turkey): Problems and Solutions in Integration of Cadastral Data to Geographical Information System (GIS) in Turkey
- TS4.3 **Aymen A. Solyman** (Kingdom of Saudi Arabia): Enterprise GIS Solution for Census Operation: A Case Study from Kingdom of Saudi Arabia This paper has not been presented in the conference.
- TS4.4 **Hartmut Müller** (Germany): Promotion of Local and Regional Spatial Data Infrastructure Development in Germany
- TS4.5 **Lehlohonolo D. Moeti** (Lesotho): Spatial Data Infrastructure Development in Lesotho: Overcoming Obstacles

Posters (short presentations)

TS4.6 **Boualem Chorfa** (Algeria): Integration of a Solution GIS Internet-Modular Type for a Collectivity

Technical Programme 10/49

Monday, April 18, 2005 11:00-12:30

TS 5 – Prepared to the Future I

Venue: Babylon III Commission: FIG 1 and 2

Chair: Mr. Klaus Rürup, Germany

Rapporteur: Prof. Dr. Bela Markus, Hungary

TS5.1 **Jennifer Whittal** (South Africa) and **Michael Barry** (Canada): A Framework for Analysing Change Management in Geomatics Development Projects

TS5.2 **Dietmar Sperling** (Germany): Corporate Real Estate Management (CREM)

TS5.3 Karl-Werner Schulte, Gisela Schulte-Daxbök, Christoph Holzmann and Matthias Wiffler (Germany): Internationalisation of Real Estate Education

TS5.4 **Sara J Wilkinson** (Australia): Joint European Masters Awards in Construction Management and Construction Economics: A positive Step for Surveying Education?

TS5.5 **Pedro J. Cavero** (Spain): The Bologna Declaration: Its Consequences in the Educational and Professional Fields in Spain

Monday, April 18, 2005 14:00-15:30

TS 6 – 3D Cadastre

Venue: Blue Nile

Commission: FIG 7 and GSDI

Chair: Eng. Mosaad Ibrahim, Egypt

Rapporteur: Mr. Libor Tomandl, Czech Republic

Papers

TS6.1. **Peter van Oosterom**, **Hendrik Ploeger** and **Jantien Stoter** (The Netherlands): Analysis of 3D Property Situations in the USA

TS6.2. **Göran Eriksson** (Sweden): A New Multi-Dimensional Information System Introduced in Sweden

TS6.3 Uri Shoshani, Moshe Benhamu, Eri Goshen, Saul Denekamp and Roy Bar (Israel):

A Multi Layers 3D Cadastre in Israel: A Research and Development Project Recommendation.

This paper has not been presented in the conference.

Technical Programme 11/49

TS6.4 **András Osskó** (Hungary): Condominium Registration in the Unified Land Registry in Hungary Towards the 3D Registration

TS6.5 Christian Clemen, Frank Gielsdorf and Lothar Gründig, (Germany): Reverse Engineering for Generation of 3D-Building-Information-Models Applying Random Variables in Computer Aided Design

TS6.6 Mauro Caprioli, Antonio Scarano and Eufemia Tarantino (Italy): Altimetric and Tridimensional Aspects for the Updating of Cadastral Archives

Posters (short presentations)

TS6.7 **Sagi Filin**, **Yevgeny Kulakov** and **Yerach Doytsher** (Israel): Application of Airborne Laser Technology to 3D Cadastre This paper has not been presented in the conference

TS6.8 **Amr H Abd-Elrahman** (Egypt): An Integrated Spatial Data Model for Multistory Cadastral System

TS6.9 **Octavian Roman** (Romania): 3D Information Systems This paper has not been presented in the conference.

Monday, April 18, 2005 14:00-15:30

TS 7 – SDI and Web Services

Venue: White Nile

Commission: GSDI and FIG 3

Chair: Prof. Dr. **Mahmoud El-Nokrashy**, Egypt Rapporteur: Dr. **Szabolcs Mihály**, Hungary

TS7.1 **Richard Onchaga** (The Netherlands): Towards Quality-aware Composition of Geoservices

TS7.2 **Andreas Donaubauer** (Germany): A Multi-Vendor Spatial Data Infrastructure for Local Governments Based on OGC Web Services

TS7.3 **Roland M. Wagner**, **Niklas Panzer** and **Falko Menge** (Germany): SDI Initiative North Rhine-Westphalia (GDI NRW) / Germany, SDI NRW Joint Project 2004: Identification of Enhanced SDI Elements (GDI NRW Verbundprojekt 2004)

TS7.4 **Liping Di** (USA): Development and Implementation of OGC Web Services Specifications for Earth Observation Data

Technical Programme 12/49

TS7.5 **Jie Jiang**, **Jun Chen** and **Gang Han** (China P.R.): A Model for Integrating Multiscale Spatial Data for e-Government and Public Service This paper has not been presented in the conference.

TS7.6 **Dhruba Raj Ghimire** (Nepal), **Ingo Simonis** (Germany) and **Andreas Wytzisk** (The Netherlands): Integration of GRID Approaches into the Geographic Web Service Domain This paper has not been presented in the conference.

Monday, April 18, 2005 14:00-15:30

TS 8 – GNSS II

Venue: Babylon I&II Commission: FIG 5

Chair: Mr. **Dan Schnurr**, United Kingdom Rapporteur: Dr. **Mohamed El-Maghraby**, Egypt

Papers

TS8.1 **Joël van Cranenbroeck** (Switzerland): A New Total Station Tracking GPS Satellites in a Network RTK Infrastructure Perspective

TS8.2 **Ismail Sanlinglu** and **Cevat Inal** (Turkey): The Test of Processing Modules of Global Positioning System (GPS) Softwares by Using Poducts of International GPS Service (IGS)

TS8.3 Alain Gaudet and Jean Cedric Landry (France): TERIA: The GNSS Network for France

TS8.4 **Mohamed M. R. Mostafa** (Canada): Precise Airbone GPS Positioning Alternatives for the Aerial Mapping Practice

Posters (short presentations)

TS8.5 **Mahmoud El-Mewafi** (Egypt): A New Approach for Updating of ETM Maps into UTM Maps and Direct UTM Maps from GPS Data

TS8.6 Amira A. Al Zarouni Yousuf A. AlMarzooqi and Adil A. ElTigani (Dubai, United Arab Emirates): Towards Standardization of Vehicle Tracking Systems

TS8.7 **Anna Barańska** (Poland): Appraisement of Equalization of Geodetic Observations Quality Applying Values of Defined Invariants Parameters

TS8.8 **Ertan Gökalp** and **Yüksel Boz** (Turkey): Outlier Detection in GPS Networks with Fuzzy Logic and Conventional Methods

Technical Programme 13/49

Monday, April 18, 2005 14:00-15:30

TS 9 – Applied SIM and SDI

Venue: Nefertiti II

Commission: FIG 3 and GSDI

Chair: Prof. Dr. **Shawky El-Ghazaly**, Egypt Rapporteur: Dr. **Chryssy Potsiou**, Greece

TS9.1 Chryssy A. Potsiou, P. Zentelis and K. Logothetis (Greece). Greece After the Gold

Rush – The Sustainability of the Infrastructure Made for the 2004 Olympic Games

TS9.2 **Johannes Hotz** (Switzerland): Spatial Data Acquisition Software for Professional Surveyors and GIS Data Collectors

TS9.3 Gloria del Pilar Vásquez Pérez (Peru): Andean Spatial Data Infrastructure (ASDI)

TS9.4 **Tho Cac Nguyen** and **Lien Dang** (Vietnam): A Geospatial Database for Vietnam, Lao and Cambodia

This paper has not been presented in the conference.

TS9.5 Iain Greenway (Ireland): Mapping Ireland – The End and Yet the Beginning

TS9.6 **Tran Nhu Trung** (Vietnam) and **Don Grant** (Australia): Why Copying LIS from a Developed Country Does Not Work for a Developing Country?

TS9.7 Evangelos Vozikis, Nikolaos Sidiropoulos and George Vozikis (Greece): The Use of Modern Technologies (GPS, GIS and Geodata) for Controlling Olive Tree Pests This paper has not been presented in the conference.

Monday, April 18, 2005 14:00-15:30

TS 10 – Prepared to the Future II

Venue: Babylon III

Commission: FIG 1 and 2

Chair: Prof. Pedro Cavero, Spain

Rapporteur: Mr. Yaacoub Saade, Lebanon

TS10.1 Piero Panunzi, Guido Moschella and Fiorenzo Guaralda (Italy): Education, Licensing and Access to Market

TS10.2 Ian Williamson (Australia): Opportunities for Surveyors in Modern Land Markets

TS10.3 **Leonie Newnham** (Australia): Innovation in Land Management, What Makes It Happen?

Technical Programme 14/49

TS10.4 **Arvo Vitikainen** (Finland): The Degree Reform in the Department of Surveying, Helsinki University of Technology

TS10.5 G. K. Allred (Canada): Marketing the Profession. Some Strategies that Work

Monday, April 18, 2005 14:00-15:30

Round table for American SDIs

Venue: Osiris Commission: GSDI

Moderator: Ltc. Rodrigo Barriga, Instituto Geografico Militar (IGM) Chile

Rapporteur: Ms. Margaret Buck, USA

Our goal is to share success stories, issues and general information on SDI development with neighbors in a region and across regions. We believe this is the way we all grow and improve locally, nationally, and regionally. One way to share information is through a series of round-table sessions on a regional basis where we each can share our experiences with others and generate interaction with our neighbors.

Panel topics

We ask the panelists to address one or more of the following questions:

- What is the easiest issue to address in any SDI development?
- What is the most difficult issue to address in SDI development?
- Which one do you recommend addressing first in SDI development?
- Give brief examples of these from you own experiences/observations?

Panelists: María-Loreto Advis N, Chile

Francisco A. Hansen Albites, Mexico

Dora-Ines Rey, Colombia

Tatiana Delgado Fernández, Cuba

Gloria del Pilar Vásquez Pérez, Peru/Andean SDI (ASDI)

Monday, April 18, 2005 16:00-17:30

TS 11 – Cadastral Modelling

Venue: Blue Nile

Commission: FIG 7 and GSDI

Chair: Prof. Dr. **Mostafa Radwan**, The Netherlands Rapporteur: Dr. **Jantien Stoter**, The Netherlands

Technical Programme 15/49

Papers

- TS11.1 Christiaan Lemmen, Peter van Oosterom, Jaap Zevenbergen, Wilko Quak and Paul van der Molen (The Netherlands): Further Progress in the Development of the Core Cadastral Domain Model
- TS11.2 Jerry Johnson (The Netherlands): Cadastre Data Modeling and GIS
- TS11.3 **Kholoud Saad Salama** (Egypt): ArcCadastre Implementations within the Middle East
- TS11.4 **Jaap Zevenbergen** (The Netherlands) and **Erik Stubkjær** (Denmark): Real Property Transactions: Challenges of Modeling and Comparing

Posters (short presentations)

- TS11.5 **James Osundwa**, **Eric Nyadimo** and **David Siriba** (Kenya): Challenges in the Establishment of a National Cadastral Data Model for Kenya Towards the Creation of a National Spatial Data Infrastructure (NSDI)
- TS11.6 **Shokry Abd-el-Malak Rofail** and **Ashraf Youssef** (Egypt): The Egyptian Unified Cadastral Data Model
- TS11.7 **Ioan Stangu** (Romania): The Cadastre A Cybernetic Approach for 21st Century Sustainable Development and Environmental Protection. This paper has not been presented at the conference.

Monday, April 18, 2005 16:00-17:30

TS 12 – Development of SDI Capacity

Venue: White Nile

Commission: GSDI and FIG 3 and 8

Chair: Dr. **Gábor Remetey-Fülöpp**, Hungary Rapporteur: Dr. **Reinfried Mansberger**, Austria

Papers

TS12.1 Mathew Warnest, Abbas Rajabifard and Ian Williamson (Australia): A Collaborative Approach to Building National SDI in Federated State Systems: Case Study of Australia

This paper has been presented by **Kevin McDougall**.

TS12.2 Walter T. de Vries and Yola Georgiadou (The Netherlands): GDI Capacity Building in Practice: An Analysis Based on Experiences with and in Developing Countries

Technical Programme 16/49

TS12.3 **Dora-Ines Rey** (Colombia): SDI Capacity Building Model for Developing Countries – Case Study: Colombia

TS12.4 **Olajide Kufoniyi** (Nigeria), **Gerrit Huurneman** and **John Horn** (The Netherlands): Human and Institutional Capacity Building in Geoinformatics Through Educational Networking

TS12.5 M. Hisham Nasr, Azza ElSayegh, Soad Fekry, Adel Kassem (Egypt) and M. Mostafa Radwan (The Netherlands): New Strategic Directions in the Egyptian Survey Authority and Impact on the Requirements for Capacity Building: An Example of International Cooperation for Human Resource Development

Monday, April 18, 2005 16:00-17:30

TS 13 – Reference Frame

Venue: Babylon I&II Commission: FIG 5

Chair: Mr. **Matt Higgins**, Australia Rapporteur: Mr. **Mikael Lilje**, Sweden

Papers

TS13.1 **Hermann Drewes** and **Christoph Reigber** (Germany): The Global Geodetic Observing System (GGOS) of the International Association of Geodesy – Objectives and Status

TS13.2 **Richard Wonnacott** (South Africa): AFREF: Background and Progress towards a Unified Reference System for Africa

TS13.3 **Francisco A. Hansen Albites** (Mexico): Geodesy as a Fundamental Data Set in the Mexican SDI (IDEMEX)

TS13.4 **Muya Kamamia** (Kenya): AFREF, Establishment of a Common and Modern African Co-ordinate System
This paper was presented by **Hassein Farah**

TS13.5 **Salah Mahmoud** (Egypt): Monitoring of Crustal Deformation in Egypt Using GPS Technique in the ITRF Reference Frame

TS13.6 **Gomaa M. Dawod** and **Sherine S. Ismail** (Egypt): Enhancing the Integrity of the National Geodetic Data Bases in Egypt

Panel Discussion

Technical Programme 17/49

Posters (short presentations)

- TS13.7 **Ehab Nabil Nassif** and **Nagi Faheem Anton** (Egypt): A Unified System of Transformation Parameters for Combining Different Geodetic Networks in Egypt
- TS13.8 **Mohamed Elmaghraby, Atef Fayad** (Egypt) and **Mohamed El-Habiby** (Canada): Investigating the Effect of Neglecting Parts of the EGD Geodetic Height on the Transformation from Helmert 1906 to WGS84
- TS13.9 **Hussein A. Abd-Elmotaal** (Egypt): Comparison of Different Datum Transformation Techniques for Egypt
- TS13.10 Maher Mohamed Amin, Saadia Mahmoud El-Fatairy and Raaed Mohamed Hassouna (Egypt): A Precise Geoidal Map of the Southern Part of Egypt by Collocation Toshka Geoid
- TS13.11 **Y. Al Marzooqi**, **H. Fashir** and **Syed Iliyas Ahamed** (United Arab Emirates): Realization of Dubai Emirate Datum on the Reference Frame 2000
- TS13.12 Y. Al Marzooqi, H. Fashir and Syed Iliyas Ahamed (United Arab Emirates): Derivation of Datum Transformation Parameters for Dubai Emirate
- TS13.13 **Stephen Djaba** (Ghana): Report of the AFREF Workshop and Planning Session on WAFREF at Nairobi, Kenya in October 2004

Monday, April 18, 2005 16:00-17:30

TS 14 – SIM and Quality

Venue: Osiris

Commission: FIG 3 and GSDI

Chair: Mr. **Robin McLaren**, United Kingdom Rapporteur: Mr. **Robin McLaren**, United Kingdom

- TS14.1 **Ibrahim Habli** (Lebanon) and **Tim Kelly** (United Kingdom): Addressing Quality Requirements in GIS Architectures
- TS14.2 **Carsten Rönsdorf** (United Kingdom): Achieving and Maintaining Interoperability of Spatial Data
- TS14.3 **Hans Knoop** (Germany): Roadmap as a Further Impulse for Standardisation in Africa by Geoinformation-Standards-ISO-Workshop in Nairobi
- TS14.4 **Jerry Johnson** (The Netherlands): Developing Data Content Building the National Data Framework

Technical Programme 18/49

TS14.5 **Ingo Simonis** and **Adam Sliwinski** (Germany): Quality of Service in a Global SDI This paper has not been presented in the conference.

Monday, April 18, 2005 16:00-17:30

TS 15 - Valuation and Real Estate Management I

Venue: Babylon III Commission: FIG 9

Chair: Mr. **Henning Elmstrøm**, Denmark Rapporteur: Dr. **Yasser Almanadely**, Egypt

TS15.1 **Simon Adcock** (Australia): Addressing Heritage and Contamination Environmental Issue in Valuation/Appraisal Assessments

TS15.2 **Jose Antonio Pinzón Bermúdez** (Colombia) and **Beatriz Cecilia Quintero Rincón** (Colombia): Land Parcel Tax as Instrument to Fight Against Poverty and Inequality

TS15.3 **Arvydas Bagdonavicius** and **Steponas Deveikis** (Lithuania): Individual and Mass Valuation – Present and Future Practices

TS15.4 **Kauko Viitanen** (Finland) and **Henning Elmstrøm** (Denmark): Valuation and the Management of Real Estate in the Future

TS15.5 **Bayram Uzun** and **Tahsin Yomralioglu** (Turkey): An Alternative Approach to Land Compensation Process to Open Urban Arteries

Monday, April 18, 2005 16:00-17:30

Round table – Surveying and GIS Education in Africa and the Arab Countries

Venue: Nefertiti II Commission: FIG

Chair: Prof. Holger Magel, FIG President

Round table discussion on surveying and geomatics education if Africa and the Arab countries. Open to all interested, especially academics and university people from these regions.

Technical Programme 19/49

Monday, April 18, 2005 16:00-16:50

GSDI Meeting – Global Registries and Portals Roundtable

Venue: Room 431

Chair: tba.

There are many existing data registries and portals around the globe. Many already interoperate and many do not. There are different metadata standards in use, different interfaces for publishing data, searching for data, and accessing data. This round table discussion will result in a sense of whether the GSDI Association should take a leadership role in bringing together existing and new registries, and if so, how we should go about doing so.

Tuesday, April 19, 2005 09:00-10:30

Plenary Session 2 – Co-operation between Land Administration and SDI

Venue: Blue and White Nile Commission: FIG and GSDI

Chair: Dr. **Mukund Rao**, President of GSDI Rapporteur: Prof. Dr. **Shawky AlGhazaly**, Egypt

PS2.1 Dr. **Paul Munro-Faure**, Chief, Land Tenure Service, FAO: Global Needs for SDI in Land Administration

PS2.2 Dr. Clarissa Augustinus, Chief, Land and Tenure Section, UN-HABITAT: Encouraging the Development of Cross Disciplinary Land Sector Tools to Improve the Security of Tenure of People in Slums

PS2.3 Ms. **Dorine A. J. Burmanje**, Chair of the Board Dutch Cadastre, Land Registry and Mapping Agency, The Netherlands: Spatial Data Infrastructures and Land Administration in Europe

PS2.4 Eng. **Mohamed Mosaad Ibrahim**, Ex-Chairman, The Egyptian Survey Authority, ESA: From Pharaohs to e-Government – the Egyptian Cadastre

Technical Programme 20/49

Tuesday, April 19, 2005 11:00-12:30

TS 16 – Web-based Decision Support

Venue: Blue Nile

Commission: GSDI and FIG 3 Chair: Mr. Mark Reichardt, USA

Rapporteur: Dr. Jordi Guimet Perenya, Spain

TS16.1 **Leslie Cone** and **Carsten Bjornsson** (USA): The National Integrated Land System – A "Field to Fabric" Solution

TS16.2 **Douglas D. Nebert** (USA): Development of Common Geospatial Data Standards

TS16.3 **Vera Hernández**, **Wolf Göhring**, **Angi Voss**, (Germany) and **Cornelio Hopmann** (Nicaragua): Sustainable Decision Support by the Use of Multi-Level and Multi-Criteria Spatial Analysis on the Nicaragua Development Gateway

TS16.4 **Asli Garagon Dogru**, **Gonul Toz**, **Haluk Ozener** and **Onur Gurkan** (Turkey): Constructing a Web-based GIS for Earthquake Monitoring in Turkey

TS16.5 Marianthi Stefouli, Eleimon Tiligadas and Sotiria Devene (Greece): Use of Earth Observation / Geoscientific Data and Web-GIS Techniques for Water Resources Management of Nestos River Basin

TS16.6 **Jorge Gustavo Rocha** (Portugal): Geowiki - Enabling Collaborative Maintenance of Spatial Data

TS16.7 **Yongping Zhao** and **Jamal Al-Akroka** (Kuwait): Kuwait Geographic Information Metadata Research

This paper has not been presented in the conference.

Tuesday, April 19, 2005 11:00-12:30

TS 17 – The State of the Art in Positioning and Measurement of SDI

Venue: White Nile

Commission: FIG 5 and GSDI

Chair: Prof. Dr. **Rudolf Staiger**, Germany Rapporteur: Mr. **Rob Sarib**, Australia

TS17.1 **Ruth Neilan** (USA): The Global Geodetic Infrastructure – A Framework for Development

TS17.2 **Matt Higgins** and **Chris Rizos** (Australia): New GNSS Developments and the Impact on Providers and Users of Spatial Data Infrastructure

Technical Programme 21/49

TS17.3 Naser El-Sheimy (Canada). An Overview of Mobile Mapping Systems

TS17.4 **Raynold Moyo** (Zambia); Emerging Practical GNSS Applications and Their Impacts on Socio-Economic Impacts in Zambia and the Sub-region This paper has not been presented in the conference.

TS17.5 **Dan Schnurr** (United Kingdom): Cost Effective Technology for Developing Countries – The Development of a FIG Survey Specification

Tuesday, April 19, 2005 11:00-12:30

TS 18 – Comparative Aspects of Land Administration Systems

Venue: Babylon II&III Commission: FIG 7

Chair: Prof. **Paul van der Molen**, The Netherlands Rapporteur: Ms. **Marina Vaskovich**, Belarus

TS18.1 **Daniel Steudler** (Switzerland): A Framework for the Evaluation of Land Administration Systems

TS18.2 **Hendrik D. Ploeger** and **Bastiaan van Loenen** (The Netherlands): Harmonization of Land Registry in Europe

TS18.3 **Ayse Yavuz** (Turkey): A Comparative Analysis of Cadastral Systems in the EU Countries According to Basic Selected Criteria This paper has not been presented in the conference.

TS18.4 **Mia Flores-Bórquez** and **Richard Grover** (United Kingdom): Restitution in Land Markets and Social Exclusion of Indigenous Peoples

TS18.5 Ashraf Youssef (Egypt): The Strategies of Land Information Management System

Tuesday, April 19, 2005 11:00-12:30

TS 19 – Planning in Informal Settlements

Venue: Nefertiti II

Commission: FIG 8 and 7

Chair: Ms. Jenny Whittal, South Africa

Rapporteur: Dr. Diane Dumashie, United Kingdom

Papers

TS19.1 **Robin McLaren** (United Kingdom), **David J. Coleman** and **Selassie Mayunga** (Canada): Sustainable Management of Mega Growth in Megacities

TS19.2 **Wafula Nabutola** (Kenya): Affordable Housing and Upgrading Informal Settlements in Kenya

TS19.3 **Wakuru Magigi** and **B. B. K. Majani** (Tanzania): Planning Standards for Urban Land Use Planning for Effective Land Management in Tanzania: An Analytical Framework for Its Adoptability in Infrastructure Utility and Facility Provisioning in Informal Settlements

TS19.4 **Rashid M. Azzan** and **Said S. Ufuzo** (Zanzibar, Tanzania): The Role of Spatial Data and Infrastructure in an Information Society: Conflicts and Implications for Zanzibar

TS19.5 **Diane Dumashie** (United Kingdom): Spatial Planning and Informal Settlements: Women and Adequate Housing

TS19.6 **Francis Harvey** (USA): Elasticity for Civil and Political Society between the Formal Cadastre and Informal Land Tenure

Posters (short presentations)

TS19.7 **B. B. K. Majani**, **Wakuru Magigi** and **Alphonce Kyessy** (Tanzania): Geographical Information Infrastructure Applications in Urban Land Management in Tanzania: A Strategy to Enhance Communities' Decision Making in Land Regularization Process in Informal Settlements

Tuesday, April 19, 2005 11:00-12:30

TS 20 – Professional Education I

Venue: Babylon III Commission: FIG 2

Chair: Prof. Dr. **Abd Elhady Said**, Egypt Rapporteur: Prof. Dr. **Abd Elhady Said**, Egypt

Technical Programme 23/49

TS20.1 **Indra D. Wijayratne** (USA): A Bachelor Degree Program in Surveying/Geomatics Offered to Place-bound Students: Measuring Success

TS20.2 **Ali Erdi** and **S.Savaş Durduran** (Turkey): Institutional Policies on Geographical Information System (GIS) Studies in Turkey
This paper has not been presented in the conference.

TS20.3 E. E. Duncan and Stephen Djaba (Ghana): Geomatic Engineeering Education at the University of Mines and Technology (UmaT), Ghana

TS20.4 **Maria Lodin** (Sweden): Canadian and Swedish Academic Experiences – A Compare and Contrast

TS20.5 Manar Mahmoud, Ahmed Darwish and Mohamed A. Salem (Egypt): GIS Education in Egypt: The ITI Experience

Tuesday, April 19, 2005 14:00-15:30

TS 21 – SDI Data Issues I

Venue: Blue Nile

Commission: GSDI and FIG 3 Chair: Mr. **Terry Keating**, USA Rapporteur: Mr. **Terry Keating**, USA

TS21.1 **Keith Murray**, **Bern Munday** and **Ian Bush** (United Kingdom): Enabling Information Integrity within SDI's – The Digital National Framework Concept

TS21.2 **Julián Escallón** (Colombia): GeoSemantica as a Technological Platform to Develop the Colombian Spatial Data Infrastructure

TS21.3 **Aegidius P. Kap** (Netherlands): Harmonization of Spatial Information on Utilities in the Netherlands

TS21.4 Szabolcs Mihály (Hungary): Space Referencing Core Data for GI in Hungary

TS21.5 **Nagy G. R. Yakoub** and **Ahmed Negm** (Egypt): Building an Automatic Raster to Vector Digitizing Application with GIS Capabilities
This paper has not been presented in the conference.

Technical Programme 24/49

Tuesday, April 19, 2005 14:00-15:30

TS 22 – New Measurement Technology and Its Application to Archaeological and Engineering Surveys

Venue: White Nile

Commission: FIG 5 and 6

Chair: Prof. Dr. **Yousef Abd Elaziz**, Egypt Rapporteur: Prof. Dr. **Stathis Stiros**, Greece

Papers:

TS22.1 **Michael Scherer** (Germany): Architectural Surveying and Visualization Using "Photo-Tacheometry"

TS22.2 Ramadan H. Abdel-Maguid, Yasser El-Manadily and Adel H. El-Shazly (Egypt): A Rapid and Cost Effective Technique for Planimetric Mapping of Small Villages in Developing Countries

TS22.3 Cameron Ellum and. Naser El-Sheimy (Canada): The Common Adjustment of GPS and Photogrammetric Measurements

TS22.4 **Vassilis Gikas** (Greece): Railway Geodesy: The Benefit of Using a Multi-discipline Approach for the Assessment of Track Alignments During Construction

TS22.5 **Guido Heinz** and **Hartmut Müller** (Germany): Surveying of Pharaohs in the 21st Century

Posters (short presentations)

TS22.6 Ragab Khalil (Egypt): New Compact Method for Testing EDM Instruments

TS22.7 Noemi Emanuela Cazzaniga, Livio Pinto, Gianfranco Forlani and Paolo Abruzzi (Italy): Monitoring Oscillations of Slender Structures with GPS and Accelerometers

TS22.8 **Alojz Kopáčik**, **Peter Kyrinovič** and **Vanda Kadlečíková** (Slovakia): Laboratory Tests of Robot Stations

TS22.9 **Halim Setan**, **Mohd Sharuddin Ibrahim** and **Zulkepli Majid** (Malaysia): Precise Measurement and 3D Modeling for Medical and Industrial Applications: Verification Tests

TS22.10 **Jan Hardos** (Slovakia): Visualization and Computer Animation of 3D Basic Map of Highway

Technical Programme 25/49

TS22.11 **S. Savaş Durduran**, **Ali Erdi**, **Levent Zoroğlu** and **Mehmet Tekocak** (Turkey): Works on the Geographical Information System (GIS) in the Ancient Town Kelenderis in Turkey

TS22.12 Madiha A. A. Farag, Keith M. Miller, Bheshem Ramlal and Claudius K. Fergus (West Indies): Use of GIS in an Archaeological Study of the Island of St Kitts

TS22.13 Samina Sultana, Malik Fida A. Khan and Chitta Ranjan Guptta (Bangladesh): Role of GIS in Presenting and Developing Strategy for Conservation of Historical Sites

Tuesday, April 19, 2005 14:00-15:30

TS 23 – Evolving Land Administration Systems

Venue: Babylon I&II Commission: FIG 7

Chair: Eng. Hisham Nasr, Egypt

Rapporteur: Mr. Christiaan Lemmen, The Netherlands

TS23.1 **Michael Barry** and **Khaleel Khan** (Canada): Law and Policy Implications of Multimedia Land Records: The Talking Titler Project

TS23.2 **Felicia Olufunmilayo Akinyemi** (Germany): Towards a Spatial Information Model for Poverty Reduction and Management in Sub-Saharan Africa This paper has not been presented in the conference.

TS23.3 **Kuda Mushati** and **David Njike** (Zimbabwe): Real Estate Investment and Development in an Evolving System of Tenure in Zimbabwe This paper has not been presented in the conference.

TS23.4 **Bo Lauri** (Sweden): Land and Real Estate Registration Project in the Kyrgyz Republic

TS23.5 **Maria Contoman** (Romania): Data Base Organization in Land Evaluation – An Essential Element for Achieving the General Cadastre in Romania. This paper has not been presented in the conference.

Technical Programme 26/49

Tuesday, April 19, 2005 14:00-15:30

TS 24 – Planning for Rural and Urban Communities

Venue: Osiris

Commission: FIG 8

Chair: Mr. Rainer Müller-Jökel, Germany

Rapporteur: Dr. Diane Dumashie, United Kingdom

Papers

TS24.1 **Mette Kragh** (Denmark): New Danish Regional Development Plans – An Effort of Combining Economy and Spatial Aspects for Urban and Rural Areas

TS24.2 **Michael Klaus** (Germany): Sustainable Land Management in Rural Areas – A New Approach for Implementation

TS24.3 **Rolf Meindl** and **Holger Magel** (Germany): Agenda 21 – The Challenge to Sustainable Local Authorities: Conclusions of a Countrywide Evaluation in Bavaria

TS24.4 **Violeta Puscasu** (Romania): Physical Planning in Periphery Systems – Effects on the Forestry System in the Eastern Carpathians
This paper has not been presented in the conference.

TS24.5. **Madan Mohan** (India): Urban Land Cover/Land Use Change Detection in National Capital Region (NCR) Delhi: A Study of Faridabad District This paper has not been presented in the conference.

TS24.6 **David Mitchell** (Australia): Property Rights – Exploring Their Role in Natural Resource Management

Posters (short presentations)

TS24.7 **Yaacoub Saade** (Lebanon): The Management of the Urban Extensions in Conserving of the Main Aspects

TS24.8 Yifter Fikru, Haile Mitiku (Ethiopia), Arnold Bregt and Gerrit Epema (The Netherlands): Using Local Capacity for Improved Land Resources Planning: A Case from Ethiopia

TS24.9 **Efi Dimopoulou, Charalambos Ioannidis, Stella Kaimaki, Sofia Soile** and **Katerina Adam** (Greece): Multi-Disciplinary Approach for the Environmental Analysis of Surface Waters in a Large-scale Development

TS24.10 **Kenneth Peprah** (Ghana): Land Use and Land Resource Management at Gyamfiase-Adenya, Ghana

Technical Programme 27/49

Tuesday, April 19, 2005 14:00-15:30

TS 25 – Professional Education II

Venue: Babylon III Commission: FIG 2

Chair: Prof. Dr. **Mohamed Rashad**, Egypt Rapporteur: Prof. Dr. **Pedro Cavero**, Spain

TS25.1 **Liping Di** and **Meixia Deng** (USA): NEHEA and GeoBrain – An Organization and System for Data-Intensive Earth System Science Education and Research at Colleges Around the World

TS25.2 **Gert Steinkellner** and **Erwin Heine** (Austria): European Education in Geodetic Engineering, Cartography and Surveying (EEGECS) – Thematic Network for Higher Education

TS25.3 **El Hassane Semlali** and **Driss Tahiri**: (Morocco): Issues and Challenges of the Surveying Engineering Education in Morocco: Present and Future

TS25.4 **Charalabos Ioannidis** and **Andreas Georgopoulos** (Greece): Basic Principles for Developing Capacity Building in Geometric Recording of Cultural Heritage

Tuesday, April 19, 2005 14:00-17:30

Arab Union of Surveyors – General Assembly

Venue: Nefertiti II
- by invitation only

Tuesday, April 19, 2005 14:00-15:30

Ad-hoc session - Design Standard Data Sets

Venue: Room 433 Commission: GSDI

Chair: Mr. Douglas D. Nebert, USA

The establishment of national base data themes, variously known as fundamental, foundation, or framework data has been described as a practice in a many countries as a central part of creating a National SDI. Discussion of current approaches and recommendations for a systematic approach to modeling and standardizing common data content for exchange in an SDI. Topics of interest include definition of 'base' data, data modeling approach, transfer encoding, web services. Attendance limited to 20.

Technical Programme 28/49

Tuesday, April 19, 2005 16:00-17:30

TS 26 – Regional SDI's and Thematic SDI's

Venue: Blue Nile

Commission: GSDI and FIG 3

Chair: Mr. Jes Ryttersgaard, Denmark

Rapporteur: Dr. Arbind Tuladbar, The Netherlands

Papers

TS26.1 **Jordi Guimet Perenya** (Spain): To Use IDEC (SDI) Philosophy to Modify Strategies and Plans: Analysis of Concrete Cases in Catalonia

TS26.2 **Rodrigo Barriga**, **Alvaro Medina** and **Juan Vidal** (Chile): Territorial Information Management in Chile

TS26.3 **Kombo Mwero** (Kenya): Fundamental Concepts of Spatial Data Infrastructure (SDI) and the Initiatives Taken by Africa through the United Nations Economic Commission of Africa (UN-ECA) under the Commission of Development Information (CODI) Framework

TS26.4 **Jaap Zevenbergen** (The Netherlands): SDI Development and Law-based Special Recordings: The Case of Soil Pollution Sites in the Netherlands

TS26.5 **Chris Holmes** and **Allan Doyle** (USA) and **Mick Wilson** (Kenya): Towards a Free and Open Source (FOSS) Spatial Data Infrastructure

Posters (short presentations)

TS26.6 **Abdel Razek Ahmed Abdel Mageed**, **Duaa Mostafa Salem** and **Tarek Lotfy Sedeek** (Egypt): Applications of Surveying and GIS in Utilities Field – Giza Utility Data Center

TS 26.7 **Francisco A. Hansen Albites** (Mexico): Activities of PC IDEA in the Americas: A Progress Report

Tuesday, April 19, 2005 16:00-17:30

TS 27 – Remote Sensing and Photogrammetry

Venue: White Nile Commission: FIG 5

Chair: Dr. **Mohsen Badawy**, Egypt Rapporteur: Mr. **Rob Sarib**, Australia

Technical Programme 29/49

Papers:

- TS27.1 **Justus Rwetabula** and **Florimond de Smedt** (Belgium): Landuse and Land Cover Mapping of the Simiyu Catchment (Tanzania) Using Remote Sensing Techniques
- TS27.2 **Tao Xiaxin** and **Li Ping** (China P. R.): Quantitative Detection of Damage in an Earthquake from Low Resolution Satellite Images
- TS27.3 Nagawa El Ashmawy, Yasser Elmanadili and Hazem Barakat, (Egypt): Comparative Analysis and Evaluation of Various Mathematical Models for Stereo IKONOS Satellite Images
- TS27.4 Mustafa Atasoy, Cemal Biyik, Huseyin Ayaz, Fevzi Karsli, Osman Demir and Emin Zeki Baskent (Turkey): Monitoring Land Use Changes and Determining the Suitability of Land for Different Uses with Digital Photogrammetry
- TS27.5 Mohamed Ettarid, Ali Ait M'Hand and Redouane Aloui (Morocco): Digital True Orthophotos Generation

<u>Posters (short presentations):</u>

- TS27.6 **Kwang-Hoon, Chi** and **Sung-Soon, Lee** (Republic of Korea): Rectification Technique of High Resolution Images for Mountain Area
- TS27.7 Sami Gumaan Daraigan, Mohd Zubir Mat Jafri, Khiruddin Abdullah, Syadril Amin Hashim (Malaysia) and Sultan AlSultan (Saudi Arabia): Polluted Water Measuring Using a Novel Optical Sensor System
- TS27.8 **Mostafa A-B Ebrahim** (Egypt): Studying the Effect of Some Image Enhancement Features on the Accuracy of Close Range Photogrammetric Measurements Using CAD Environment
- TS27.9 Sultan AlSultan (Saudi Arabia), Hwee-San Lim, Mohd Zubir MatJafri and Khiruddin Abdullah (Malaysia): An Algorithm for the Land Surface Temperature Analysis of Remote Sensing Image Coverage over AlQassim, Saudi Arabia
- TS27.10 **Jalal Amini** and **Ali Reze Mohamadi Hashemi** (Iran): Geometric Correction in Ikonos Images: Case Study: Tehran, Iran
- TS27.11 **Huadong Guo, Changlin Wang, Wang Weimin, Zhu Boqing** and **Zhong Ruofei** (China P. R.): A New Digital Earth Information Source Processing and Applications of Chinese Spacecraft Remote Sensing Data

Technical Programme 30/49

Tuesday, April 19, 2005 16:00-17:30

TS 28 – Business of Land Administration

Venue: Babylon I&II Commission: FIG 7

Chair: Prof. Dr. **Ibrahim Shaker**, Egypt Rapporteur: Dr. **Daniel Steudler**, Switzerland

Papers

TS28.1 **Antonio Benvenuti** and **Bruno Razza** (Italy): The Cadastre: An Instrument for the Development of the Society

This paper has not been presented in the conference.

TS28.2 M. Mostafa Radwan (The Netherlands), M. Hisham Nasr (Egypt), Christiaan Lemmen (The Netherlands) and Sohir Hussem (Egypt): The Egyptian Survey Authority Business Model to Strengthen Public Private Partnership in the Real Estate Industry

TS28.3 **Zuhair AlOstah** and **Saad AlKhatib** (Jordan): Building Jordan Digital Cadastral Data Base (JDCDB) in the Department of Lands and Survey (DLS)

TS28.4 Charles Cowap (United Kingdom): Can You Have Too Much Security of Tenure?

TS28.5 **Francis Gabele** and **Marc Vanderschueren** (Belgium): Business Approaches and the "Patrimonial Documentation" Administration of Belgium

Posters (short presentations)

TS28.6 **Jiri Rydval**, **Vaclav Slaboch** and **Libor Tomandl** (Czech Republic): Strengths and Weaknesses of the Czech Cadastral System: An Analysis of Present System

TS28.7 **Mehmet Cete** and **Bayram Uzun** (Turkey): The Evolving Role of Private Sector in Turkish Cadastral System

Technical Programme 31/49

Tuesday, April 19, 2005 16:00-17:30

TS 29 – Approaches in Land Consolidation and Community Regeneration

Venue: Osiris

Commission: FIG 8 and 7

Chair: Dr. **Diane Dumashie**, United Kingdom Rapporteur: Prof. Dr. **Arvo Vitikainen**, Finland

Papers

TS29.1 **Rainer Müller-Jökel** (Germany): The Participation of Landowners and the Public in German Planning and Land Management Projects

TS29.2 **Eszter Hőna** (Hungary): The Role of Spatial Plans in the Reparation of Land Consolidation in Hungary

TS29.3 **Mohammed Essadiki** (Morocco): Land Consolidation in Morocco: Situation and Perspective

TS29.4 **Per Kåre Sky** and **Øyvind Ravna** (Norway): Land Consolidation and Landscape Changes in Galicia (Spain)

TS29.5 John Salmon (United Kingdom): Mineral Development – The Owner's Perspective

TS29.6 **Simon Forbes** and **Tim Goodhead** (United Kingdom): Surveyors in Planning and Regeneration: Impacts on the Social and Welfare Benefits of Communities Arising in Regenerating Historic Military Port Towns

Posters (short presentations)

TS29.7 **Hamdy El-Gamily** and **Islam Abou el-Magd** (Egypt): Multi-temporal Monitoring of the Cancerous Urban Growth in the Nile Delta, Egypt

TS29.8 Mirosław Gdesz (Poland): Adjacency Levies in Poland – Main Problems

Tuesday, April 19, 2005 16:00-17:30

TS 30 – Valuation and Real Estate Management II

Venue: Babylon III Commission: FIG 9

Chair: Eng. **Mohamed Reda Abdelrahman**, Egypt Rapporteur: Mr. **David Smejkal**, Czech Republic

Technical Programme 32/49

TS30.1 **Marina Vaskovich** (Belarus): Purchase of Real Property in Belarus: Modelling and Evaluation

TS30.2 **Kauko Viitanen** (Finland): International Valuation Standards and Land Administration

TS30.3 **Volkan Yildirim** and **Recep Nisanci** (Turkey): Property & Garbage Tax Collection via Address Information Systems: A City Case Study Trabzon

TS30.4 **Maria Ulfvarson Östlund** (Sweden): Real Estate Development Agreements in Sweden

TS30.5 **Cristian Silviu Banacu** and **Ioana Manolache** (Romania) Efficiency and Effectiveness in Using the International Valuation Standards in Land Management and Legislation Framework – Case of Romania

Tuesday, April 19, 2005 16:00-16:50

GSDI Meeting – Geographic Data Commons Roundtable

Venue: Room 433

Chair: tba.

On 19 November 2004, major biological organizations from around the world announced their endorsement of common principles calling for free and open access to conservation information. The effort, known as the Conservation Commons, aims to more effectively connect users of conservation data to the information they need by committing signatories to make some or all of their conservation data available for free and open use. This roundtable will explore the interest of major geographic data organizations in committing themselves to a parallel and complimentary global effort for open access to geographic data to support broad ranging social, economic and scientific purposes.

Wednesday, April 20, 2005 09:00-10:30

Plenary Session 3 – Future of the SDI / Surveying Communities

Venue: Blue and White Nile Commission: FIG and GSDI

Chair: Prof. Dr. Ahmed Elsheikh, Egypt

Rapporteur: Prof. Dr. Ralf Schroth, FIG Vice President, Germany

PS3.1 Prof. **Ian Dowman**, University College London, President of ISPRS: Photogrammetry and Remote Sensing in SDIs and Preventing Environmental Catastrophes

PS3.2 O.Univ.-Prof. Dipl.-Ing. Dr.techn. **Hans Sünkel**, Rector of the University of Graz: Future of Surveying and SDI

Technical Programme 33/49

PS3.3 Dr. **Hisham El Sherif**, Chairman of IT Investments Group, Egypt: Future of Surveying and GIS in the Arab World

Wednesday, April 20, 2005 11:00-12:30

TS 31 – Developing SDI's

Venue: Blue Nile

Commission: GSDI and FIG 3

Chair: Prof. Dr. **Ian Masser**, United Kingdom Rapporteur: Eng. **Mohamed Mostafa**, Egypt

Papers

TS31.1 **D. R. Fraser Taylor** (Canada): The History and Development of Global Map: A Spatial Data Infrastructure for Sustainable Development in the Middle East and North Africa

TS31.2 Mark Reichardt (USA): GSDI Depends on Widespread Adoption of OGC Standards

TS31.3 **Milan Konecny** (Czech Republic) and **Ferjan Ormeling** (The Netherlands): The Role of Cartography in the GSDI World

TS31.4 **Arif Cagdas Aydinoglu** and **Philippe de Maeyer** (Belgium) and **Tahsin Yomralioglu** (Turkey): Examining European SDI Initiatives in Anticipation of a SDI Framework for Turkey

TS31.5 **Jesús Olvera Ramírez** (Mexico): The Spatial Data Infrastructure of México "IDEMex"

Posters (short presentations)

TS31.6 **Richard Kasuga** (Tanzania): Towards SDI Decision Support for Agricultural Planning in Tanzania

TS31.7 **Joel I. Igbokwe** and **Mathew N. Ono** (Nigeria): Nigeria's National Geospatial Data Infrastructure: Problems and Prospects

Wednesday, April 20, 2005 11:00-12:30

TS 32 – Disaster Management and GIS Applications

Venue: White Nile

Commission: FIG 8 and 3 and GSDI Chair: Mr. **Wafula Nabutola**, Kenya

Rapporteur: Dr. Yasser Almanadely, Egypt

Technical Programme 34/49

From Pharaohs to Geoinformatics FIG Working Week 2005 and GSDI-8 Cairo, Egypt April 16-21, 2005

<u>Papers</u>

- TS32.1 **Theo Kötter** (Germany): Risk Management
- TS32.2 **Daniel Roberge** (Canada): After the Tsunami How the Surveying Profession Can Participate in the Reconstruction
- TS32.3 **Julian Simela** and **Emmanuel Tembo** (Botswana): Disaster Management in the Land Development Chain

This paper has not been presented in the conference.

TS32.4 **Frank Friesecke** (Germany): Flood Risk Management – Flood Prevention by Land Consolidation in the Rhine Catchment Area

Posters (short presentations)

- TS32.5 **Lidija Romic** and **Pere Tumbas** (Serbia and Montenegro): The Validation of Risk Information in the Erm Process Based on Accounting
- TS32.6 **Abdelkader Missoumi, Kouider Tadjerouni, Mohamed Chikh** and **Larbi Tidjani** (Algeria): Remote Sensing and GIS: Two Major Tools for the Environment Management and Protection Case of the Cartography of the Natural Disasters
- TS32.7 Youcef Smara, Aichouche Belhadj-Aissa and Mostefa Belhadj-Aissa (Algeria): Application of GIS and Remote Sensing Technologies in Disaster Management in Algeria
- TS32.8 **Amr Hanafi Ali** and **Mona Saad ElSayed** (Egypt): Planning for Engineering Projects with the Reference to Application of Environmental Impact Assessment

Wednesday, April 20, 2005 11:00-12:30

TS 33 – Vertical Reference Frame

Venue: Babylon I&II Commission: FIG 5

Chair: Prof. Dr. **Dalal Alnaggar**, Egypt Rapporteur: Mr. **Mikael Lilje**, Sweden

TS33.1 Y. Al Marzooqi, H. Fashir and Syed Iliyas Ahmed (UnitedArab Emirates) and R. Forsberg and G. Strykowski (Denmark): Progress Towards a Centimeter Geoid for Dubai Emirate

TS33.2 **Adel H. El-Shazly** (Egypt): GPS Levelling Without Geoid in Egypt Applied to Borg Al-Arab City

Technical Programme 35/49

TS33.3 **Kemal Yurt**, **Ertan Gökalp** and **Yüksel Boz** (Turkey): Determination of Local Geoid with GPS in Tabzon/Turkey

This paper has not been presented in the conference.

TS33.4 **Keith M Miller**, **Joseph Hamilton** and **David Neale** (Trinidad, West Indies): Vertical Datums in a Fault Zone: Influences of Plate Tectonics in Trinidad, West Indies

TS33.5 **Ayhan Ceylan**, **Cevat Inal** and **Ismail Sanlioglu** (Turkey); Modern Height Determination Techniques and Comparison of Accuracies

TS33.6 **Metin Soycan** and **Arzu Soycan** (Turkey): Geoid Heights Computation from GPS Data and Classical Terrestrial Zenith Angle Observations

Wednesday, April 20, 2005 11:00-12:30

TS 34 – Technological Aspects of Land Administration Systems

Venue: Osiris

Commission: FIG 7

Chair: Prof. Dr. **Mostafa Radwan**, The Netherlands Rapporteur: Mr. **Marc Vandershueren**, Belgium

TS34.1 Ivan Aleksić (Serbia), Christiaan Lemmen (The Netherlands) and Suleiman Dabass (Serbia): Technological Aspects of Land Administration Systems in the West Balkans

TS34.2 **Mohamed El-Maghraby** (Egypt) and **Ali Zobarei** (Syria): Uses of Recent Techniques for Establishing a Good and Up-to-date Base for a Modern Cadastre System

TS34.3 **Samir Elrouby** (Egypt), **Kaisa Harju** (Finland) and **Ian Corker** (United Kingdom): Developing an Automated Cadastral Information System in Egypt

TS34.4 Adel Haggag, Ibrahim Shaker, Mohamed El-Maghraby (Egypt) and Ali Zobarei (Syria): Towards an Automated Information System for Cadastral Survey in Egypt

TS34.5 **Halil Ibrahim Inan** and **Selcuk Reis** (Turkey): The Need of a Parcel-based Information System to Support Agricultural Sector This paper has not been presented in the conference.

Wednesday, April 20, 2005 11:00-12:30

TS 35 – Hydrography I

Venue: Babylon III Commission: FIG 4

Chair: Mr. G. K. (Ken) Allred, Vice President of FIG, Canada

Rapporteur: Mr. Andrew Leyzack, Canada

Technical Programme 36/49

From Pharaohs to Geoinformatics FIG Working Week 2005 and GSDI-8 Cairo, Egypt April 16-21, 2005 TS35.1 **Alexandros Maratos**, President of the International Hydrographic Bureau: IHO Activities: IHO Activities

TS35.2 **Paul Hornsby**, Chairman of the International Federation of Hydrographic Societies: Hydrography – Modern Maritime Exploration and the Alliance between the Practitioner, the Customer and Government Interests

This paper has been presented by **John McCarthy**.

Wednesday, April 20, 2005 11:00-12:30

Round table for African SDIs

Venue: Nefertiti II Commission: GSDI

Moderator: Dr. **Chukwudozie Ezigbalike**, UN Economic Commission for Africa Rapporteur: Dr. **Ganiy I. Agbaje**, NGDI Project Manager, NASRDA, Nigeria

Our goal is to share success stories, issues and general information on SDI development with neighbors in a region and across regions. We believe this is the way we all grow and improve locally, nationally, and regionally. One way to share information is through a series of round-table sessions on a regional basis where we each can share our experiences with others and generate interaction with our neighbors.

Panel topics

We ask the panelists to address one or more of the following questions:

- What is the easiest issue to address in any SDI development?
- What is the most difficult issue to address in SDI development?
- Which one do you recommend addressing first in SDI development?
- Give brief examples of these from you own experiences/observations?

Presenters: Charles Paradzayi, Zimbabwe

Lehlohonbolo D. Moeti, Lesotho Mercy Matheri, South Africa

Ansetos Musarava Dumburashe, Zimbabwe/Southern African sub-region

Olajide Kufoniyi, Nigeria

Wednesday, April 20, 2005 14:00-15:30

TS 36 – Evaluation SDI's

Venue: Blue Nile

Commission: GSDI and FIG 3

Chair: Dr. Abbas Rajabifard, Australia

Rapporteur: Mr. Bastiaan van Loenen, The Netherlands

Technical Programme 37/49

TS36.1 **Arnold Bregt** and **Joep Crompvoets** (The Netherlands): Spatial Data Infrastructures: Hype or Hit?

TS36.2 Ian Masser (United Kingdom): Some Priorities for SDI Related Research

TS36.3 Tatiana Delgado Fernández (Cuba), Kate Lance, Margaret Buck and Harlan J. Onsrud (USA). Assessing an SDI Readiness Index

TS36.4 **Mohamed Abdel-salam** (Canada) and **Mohamed Mostafa** (Egypt): Development of Unified Spatial Infrastructure Status Index for Developing Nations

Wednesday, April 20, 2005 14:00-15:30

TS 37 – Spatial Development Infrastructure Linkages with Urban Planning and Infrastructure Management

Venue: White Nile

Commission: FIG 8, 3 and 7

Chair: Prof. Dr. **Theo Kötter**, Germany Rapporteur: Mr. **Wafulo Nabutola**, Kenya

Papers

TS37.1 Christiaan Lemmen, Mostafa Radwan, Fatma Abdel Kader and Atef Abdelmoneam (The Netherlands): A Vision on the Development of the Urban Cadastre in Egypt

TS37.2 El Hassane Semlali, Achraf Ait Alla, Khalid Zahiri and My Abdeslam Adad (Morocco): Process of Integrating Digital Cadastral Map and Urban Data into a GIS Application for the Development of a Municipality – Case Study

TS37.3 **Shuaib Lwasa** (Uganda): A Geo-Information Approach for Urban Land Use Planning in Kampala.

This paper has not been presented in the conference.

TS37.4 **Nasrin Sesar** (USA): Land Use of the Geographical Information System (GIS) and Mathematical Models in Planning Urban Parks & Green Spaces This paper has not been presented in the conference.

Posters (short presentations)

TS37.5 El Hassane Semlali, Lamiaa Ait Lakhraz, Rabia Hamel and Abdelouahed el Idrissi (Morocco): Management of an Urban Development MAP: Design and Development of a GIS User Interface to Solve Technical Problems

Technical Programme 38/49

TS37.6 Amir Mohammad Toosi, Mahmoud Reza Delavar and Hani Rezayan (Iran): Upgrading Urban Detailed Plan Production Process Using GIS: Case Study: Production of Land Value Data Layer

TS37.7 Bachir Ablat, Mohamed Rouchdi, Assou Mohammi and Mohammed Laaroussi (Morocco): An Infrastructure of Spatial Data for an Efficient Management of Agriculture Water Need

TS37.8 **Gordon S. O. Ojwang'** (Kenya): Spatial Data Modelling: An Integrated Approach in Resource Data Acquisition for Land Use Planning and Sustainable Utilization

TS37.9 **Adelino Ferreira** and **Anabela Duarte** (Portugal): A GIS-based Integrated Infrastructure Management System

TS37.10 **Mustafa Khamis Farahat** (Egypt): Applications of Geographic Information System in Field of Utilities – Greater Cairo Utility Data Center

Wednesday, April 20, 2005 14:00-15:30

TS 38 – Using Laser Scanning in Engineering Surveys

Venue: Babylon I&II Commission: FIG 6

Chair: Prof. Dr. **Shawky Al-Ghazaly**, Egypt Rapporteur: Prof. Dr. **Alojz Kopacik**, Slovakia

TS38.1 **Ivo Milev** and **Lothar Gruendig** (Germany): As-built Documentation and Reverse Engineering Derived from Laser Scanning

TS38.2 **Gethin Roberts** and **Laura Hirst** (United Kingdom): Deformation Monitoring and Analysis of Structures Using Laser Scanners

TS38.3 Nizar Abo Akel, Sagi Filin and Yerach Doytsher (Israel): From Airborne Laser Data to Spatial Information: Object Reconstruction and Accuracy Analysis

TS38.4 **Ayman Habib**, **Mwafag Ghanma** and **Eui Myoung Kim** (Canada): LIDAR Data for Photogrammetric Georeferencing

This paper has not been presented in the conference.

TS38.5 **Rudolf Staiger** (Germany): The Geometrical Quality of Terrestrial Laser Scanner (TLS)

TS38.6 Michel Morgan, Soo Jeong, Kyung-Ok Kim and Ayman Habib (Canada): Normalization of Linear Array Scanner Scenes Using the Modified Parallel Projection Model This paper has not been presented in the conference.

Technical Programme 39/49

Wednesday, April 20, 2005 14:00-15:30

TS 39 – Boundary Surveying

Venue: Osiris Commission: FIG 7

Chair: Prof. Dr. **Mostafa Baraka**, Egypt Rapporteur: Mr. **Jiri Rydval**, Czech Republic

TS39.1 Michael Elfick (Australia), Tim Hodson (Souch Africa) and Curt Wilkinson (USA): Managing a Cadastral SDI Framework Built from "Metes and Bounds" Data

TS39.2 **David Powell** (United Kingdom): Neighbours at War (Boundary Disputes)

TS39.3 **Eugene H. Silayo** (Tanzania): Searching for an Affordable and Acceptable Cadastral Survey Method

TS39.4 **Metin Soycan** and **Taylan Öcalan** (Turkey): GPS Based Traversing for Topographic-cadastral Surveying and Staking

Wednesday, April 20, 2005 14:00-15:30

TS 40 – FIG Commission 4 Working Group Activities

Venue: Babylon III

Commission: FIG 4 and 7

Chair: Mr. **Adam Greenland**, United Kingdom Rapporteur: Mr. **Andrew Leyzack**, Canada

TS40.1 **Michael Sutherland** (Canada): The Marine Cadastre: Legal and Spatial Data Contribution to Economic, Environmental and Social Development

TS40.2 **Ruth Adams** (United Kingdom): Vertical Reference Surface for Hydrography – Status Report 2005

TS40.3 **M. Sigit Widodo** (Indonesia): Developing a Marine Spatial Planning: Lessons from Integrated Spatial Plan for City of Balikpapan, Indonesia

TS40.4 **Ahmed El-Rabbany** (Canada): Analysis of Hydrographic Data Uncertainty for Seamless Reference Surface

TS40.5 **Sadrudin Charania** (Kenya): Integrated Water Resources Management with Reference to Developing Countries. This paper has not been presented at the conference.

TS40.6 **Alexandrina Zaharia** (Romania): Juridical Protection of Waters and Aquatic Ecosystems in Romania. This paper has not been presented at the conference.

Technical Programme 40/49

Wednesday, April 20, 2005 14:00-15:30

Round table for African Policy Decisions

Venue: Nefertiti II

Commission: GSDI and UN ECA

Moderator: Dr. Chukwudozie Ezigbalike, UN Economic Commission for Africa

Rapporteur: Dr. Olajide Kufoniyi, Nigeria

RT1.1 **André Bassole** (EIS Africa, Burkina Faso): Integrating SDI and NICI Processes in Africa: Integration of Spatial Data Infrastructures into National Information Policies: Linking SDI and NICI Development Processes to Speed up the Emergence of the African Information Society

RT1.2 **Remy Sietchiping** (DISD/UNECA): Under the Cotton Tree: Situs Addressing System in Africa

Wednesday, April 20, 2005 14:30-15:30

GSDI Meeting – Open Source Software Forum

Venue: Room 433

Chair: tba

Wednesday, April 20, 2005 16:00-17:30

TS 41 – SDI Implementation Cases

Venue: Blue Nile Commission: GSDI

Chair: Dr. **Yola Georgiadou**, The Netherlands Rapporteur: Mr. **Daniel Roberge**, Canada

Papers

TS41.1 **Peter Ibach** and **Matthias Horbank** (Germany): Towards a Global Spatial Data Infrastructure Using Web Services

TS41.2 Leonid Stoimenov, Aleksandar Stanimirovic and Slobodanka Djordjevic-Kajan (Serbia and Montenegro): Development of GIS Interoperability Infrastructure in Local Community Environment

TS41.3 **Raja Ram Chhatkuli** and **Durgendra Man Kayastha** (Nepal): Towards a National Geographic Information Infrastructure: Overcoming Impediments to the Development of SDI in Nepal

Technical Programme 41/49

TS41.4 **Steffen Vogt** (Germany): AntSDI: The Coolest SDI on Earth? – Towards a Spatial Data Infrastructure for Antarctica

TS41.5 **Mark Sorensen** (USA): 25 Years of SDI and Federated GIS Implementation Lessons Learned in the Middle East and Beyond

TS41.6 **Karen D. Kline** (Japan): The Digital Divide and Global Spatial Data and Users

<u>Posters (short presentations):</u>

TS41.7 **Olajide Kufoniyi** and **Ganiy I. Agbaje** (Nigeria): National Geospatial Data Infrastructure Development in Nigeria: The Journey So Far

Wednesday, April 20, 2005 16:00-17:30

TS 42 – Spatial Information Systems – Regional and International Approaches

Venue: White Nile

Commission: FIG 3 and GSDI

Chair: Prof. Dr. **Milan Konecny**, Czech Republic Rapporteur: Mr. **Christiaan Lemmen**, The Netherlands

TS42.1 **Heinz Brueggemann** (Germany): SDI's as Basic Components of e-Government and e-Business – The German Approach

TS42.2 Jes Ryttersgaard (Denmark): Overview of INSPIRE

TS42.3 **Gerhard Muggenhuber** (Austria), **Ivan Aleksic** and **Suleiman Dabbas** (Serbia and Montenegro): The Impact of Spatial Information Provided by Land Administration Services in Europe

TS42.4. **Phillip Rudd** and **Robert Sarib** (Australia): Northern Territory (Australia) Spatial Data Infrastructure – Now and Beyond

TS42.5 Floris de Bree (The Netherlands) and Abbas Rajabifard (Australia): Involving Users in the Process of Using and Sharing Geo-information within the Context of SDI Initiatives

Wednesday, April 20, 2005 16:00-17:30

TS 43 – Deformation Measurement and Analysis

Venue: Babylon I&II Commission: FIG 6

Chair: Prof. Dr. Ahmed Shaker, Egypt

Rapporteur: Prof. Dr. Gethin Roberts, United Kingdom

Technical Programme 42/49

From Pharaohs to Geoinformatics FIG Working Week 2005 and GSDI-8 Cairo, Egypt April 16-21, 2005

Papers

- TS43.1 Wan Aziz W.A., Zulkarnaini M.A. and Shu K.K. (Malaysia): The Deformation Study of High Building Using RTK-GPS: A First Experience in Malaysia
- TS43.2 Vassilis Gikas, Demetris Paradissis, Kostas Raptakis and Olga Antonatou (Greece): Deformation Studies of the Dam of Mornos Artificial Lake via Analysis of Geodetic Data
- TS43.3 Youjian Hu (China P. R.), Kefei Zhang and Gangjun Liu (Australia): Deformation Monitoring and Analysis Using Regional GPS Permanent Tracking Station Networks
- TS43.4 **Moustafa A. Baraka** and **Adel H. El-Shazly** (Egypt): Monitoring Bridge Deformations during Static Loading Tests Using GPS
- TS43.5 **Reda Mohamed A. Ali**, **Paul A. Cross** and **Ali A. Elsharkawy** (Egypt): High Accuracy Real-time Dam Monitoring Using Low-cost GPS Equipment
- TS43.6 Stella I. Pytharouli, Villy A. Kontogianni, Anna Nickitopoulou, Panos A. Psimoulis and Stathis C. Stiros: Analysis of the Kinematics of a Deep-Seated Landslide

<u>Posters (short presentations)</u>

- TS43.7 **A.** Merbah, **B.** Gourine, **B.** Ghezali, **S.** Kahlouche, Algeria, **M.** Meghraoui, France and **M.J Sevilla** (Spain): Evaluation et Interpretation des Deformations Horizontales et de leurs Erreurs sur un Réseau de Surveillance Sismique
- TS43.8 **Krystyna Czarnecka** and **Kazimierz Czarnecki** (Poland): Geophysical Support of Geodynamical Studies of the Surroundings of Large Engineering Objects
- TS43.9 **Gheorghe-Mugurel Rădulescu** and **Corina-Michaela Rădulescu** (Romania): Tall Structures Behaviour Under the Action of Irregular Heat of the Wind of Cumulated Loadings
- TS43.10 **Ayman Habib**, **Anoop Pullivelli** and **Chang-Hahk Hahm** (Canada): Standardized Measures for the Stability Analysis of Low-Cost Digital Cameras and Potential Applications

Wednesday, April 20, 2005 16:00-17:30

TS 44 – Financing Affordable Housing

Venue: Osiris

Commission: FIG 10, 9, 8

Chair: Mr. **Andrew Morley**, United Kingdom Rapporteur: Dr. **Diane Dumashie**, United Kingdom

Technical Programme 43/49

TS44.1 **Joseph Jenkins** (USA): A Method for the Reuse of Packaging Materials in the Construction of Very Low Income Housing

TS44.2 **Tahsin Yomralioglu** and **Recep Nisanci** (Turkey): An Approach to Support Low Income Families' Housing Needs in Developing Countries This paper has not been presented in the conference.

TS44.3 Hani Rezayan, Farid Karimipour, Jalal Amini and Amir Mohammed Toosi

(Iran): Neighborhoods Development in Real Estate Appraisal Process This paper has not been presented in the conference.

Wednesday, April 20, 2005 16:00-17:30

TS 45 – Hydrography II

Venue: Babylon III Commission: FIG 4

Chair: Mr. **David Neale**, Trinidad, West Indies Rapporteur: Mr. **Adam Greenland**, United Kingdom

TS45.1 **Hasanuddin Z. Abidin**, **Sobar Sutisna**, **T. Padmasari**, **J. Kahar** and **Klaas J. Villanueva** (Indonesia): Geodetic Datum of Indonesian Maritime Boundaries: Status and Problems

TS45.2 **Adel H. El-Shazly** (Egypt): The Efficiency of Neural Networks to Model and Predict Monthly Mean Sea Level from Short Spans Applied to Alexandria Tide Gauge

TS45.3 **Andrew Leyzack** (Canada): The Canada Lands Surveyor Commission – A Recommended Role in the Certification of Hydrographic/Offshore Surveyors

Wednesday, April 20, 2005 16:00-17:30

Round table for Asia and Pacific SDIs

Venue: Nefertiti II Commission: GSDI

Moderator: Prof. Dr. **Ian Williamson**, University of Melbourne, Australia Rapporteur: Dr. **Abbas Rajabifard**, University of Melbourne, Australia

Our goal is to share success stories, issues and general information on SDI development with neighbors in a region and across regions. We believe this is the way we all grow and improve locally, nationally, and regionally. One way to share information is through a series of round-table sessions on a regional basis where we each can share our experiences with others and generate interaction with our neighbors.

Technical Programme 44/49

Panel topics

We ask the panelists to address one or more of the following questions:

- What is the easiest issue to address in any SDI development?
- What is the most difficult issue to address in SDI development?
- Which one do you recommend addressing first in SDI development?
- Give brief examples of these from you own experiences/observations?

Presentations:

RT2.1 S.S.O. Puntodewo (Indonesia): The Progress of SDI Development in Indonesia

RT2.2 **Pengiran Matusin Matasan** (Brunei Darussalam): Towards NSDI (National Spatial Data Infrastructure) in Brunei Darussalam

Thursday, April 21, 2005 09:00-10:30

TS 46 – Place Names and Addresses

Venue: Kahmarana

Commission: GSDI and FIG 3

Chair: Eng. Mosaad Ibrahim, Egypt

Rapporteur: Mr. Keith Murray, United Kingdom

TS46.1 Rubén Darío Mateus Sanabria and Sonia Mireya Sua Tunjano (Colombia):

Biological Records Georeferencing and Digital Localities Gazeter

TS46.2 **Mercy Matheri** (South Africa): Challenges Facing the Creation of a Standard South African Address System

TS46.3 **Mohamed M. R. Mostafa** (Canada): Optimizing the Digital Processing Workflow Using Direct Georeferencing

TS46.4 **Anthony A. Adeoye** (Nigeria): Toward the Development of Geographic Names Information Systems for the Management of Telecommunication in Nigeria

Thursday, April 21, 2005 09:00-10:30

TS 47 – SDI Legal and Policy Issues

Venue: Osiris

Commission: GSDI

Chair: Prof. **Bas Kok**, The Netherlands Rapporteur: Mr. **Tran Nhu Trung**, Vietnam

TS47.1 **Alessandro Annoni** and **Massimo Craglia** (Italy): Towards a Directive Establishing an Infrastructure for Spatial Information in Europe (INSPIRE)

Technical Programme 45/49

TS47.2 **Abbas Rajabifard**, **Andrew Binns** and **Ian Williamson** (Australia): Development of a Virtual Australia Utilising an SDI Enabled Platform

TS47.3 **Nick Land** (France): EuroGeographics – Underpinning Europe's Spatial Information Infrastructure: Obstacles and Solutions

TS47.4 **Bino Marchesini** (EUROGI, The Netherlands): Why and How EUROGI Supports Pan European GI Cooperation

TS47.5 **Eldor Saidov** (Uzbekistan): Introduction of Spatial Data Infrastructure in Uzbekistan; Development of Spatial Data Infrastructure in the Republic of Uzbekistan by the Creation of Committee (on the Example of South African Committee)

Thursday, April 21, 2005 09:00-10:30

TS 48 – GLOBAL MAPPING – Global Geo-information for Sustainable Development - Part I – General Presentation on Global Geo-information

Venue: Nefertiti II Commission: ISCGM

Chair: Prof. Ian Dowman, United Kingdom

Rapporteur: Dr. Karen Kline, Japan

TS48.1 **Hiromichi Maruyama**, **Hisakazu Sasaki** and **Takaki Okatani** (Japan): Global Mapping Project by National Mapping Organizations on the Globe

TS48.2 Ryutaro Tateishi (Japan): Global Land Cover Mapping

TS48.3 **David Forrest** (United Kingdom): Automated Selection of Topographic Base Information from the Global Map Database for Thematic Maps

TS48.4 **Chris Higgins** (United Kingdom): An Investigation Into the Use of EuroGlobal Map in the UK Academic SDI

TS48.5 **Craig von Hagen** (UN FAO): Global Land Cover Network and the Relevancy of Harmonized Land Cover

Technical Programme 46/49

Thursday, April 21, 2005 11:00-12:30

TS 49 – SDI Data Issues

Venue: Morgana

Commission: GSDI and FIG 3 Chair: Mr. **Douglas D. Nebert**, USA Rapporteur: Dr. **Chryssy Potsiou**, Greece

TS49.1 **Olaide Suraj Onabajo, Olasunkanmi Olatunde Akerele** and **Solomon Babatope Olukotun** (Nigeria): Development and Implementation of Metadata Structure in Nigeria – A

Case Study of Federal Survey Department

This paper has not been presented in the conference.

TS49.2 **Charles Paradzayi** (Zimbabwe): Spatial Data Infrastructure as a Vehicle for Sustainable Development in Zimbabwe

This paper has not been presented in the conference.

TS49.3 **Abiti Getaneh Gebremeskel** (Ethiopia): Ethiopian Natural Resources and Environmental Meta-Database (ENRAEMED)

This paper has not been presented in the conference.

TS49.4 **David Njike** and **Kuda Mushati** (Zimbabwe): The Challenges of Implementing Metadata in Developing Countries: A Case Study for Zimbabwe This paper has not been presented in the conference.

TS49.5 **María-Loreto Advis N** (Chile): Technical Unit: A Structure for Working on the Metadata Catalogue in Chile and the Technical Aspects of an NSDI

TS49.6 Lien Dang, Hong Phong Dinh and Minh Hai Pham (Vietnam): Metadata for Digital Topographic Maps of Vietnam

This paper has not been presented in the conference.

Thursday, April 21, 2005 11:00-12:30

TS 50 – Partnerships and Funding

Venue: Osiris

Commission: GSDI

Chair: Dr. Olajide Kufoniyi, Nigeria

Rapporteur: Prof. Dr. Hartmut Müller, Germany

TS50.1 **Bastiaan van Loenen** (The Netherlands): The Impact of Access Policies on the Development of Local SDIs: The Special Role of Utilities

Technical Programme 47/49

TS50.2 **Bas Kok** (The Netherlands): Partnership Building is a Crucial Element of the Dutch NSDI

TS50.3 **Peter Holland**, **Ian Williamson**, **Abbas Rajabifard** and **John Manning** (Australia): Making the SDI Concept Relevant to Asia-Pacific Countries – The PCGIAP Experience

TS50.4 **Kevin McDougall**, **Abbas Rajabifard** and **Ian Williamson** (Australia): Understanding the Motivations and Capacity for SDI Development from the Local Level

TS50.5 **Garfield Giff** and **David Coleman** (Canada): Using Simulation to Evaluate Funding Models for SDI Implementation

Thursday, April 21, 2005 11:00-12:30

TS 51 – GLOBAL MAPPING – Global Geo-information for Sustainable Development - Part II – Panel Discussion on Global Mapping

Venue: Nefertiti II Commission: ISCGM

Chair: Prof. Dr. Fraser Taylor, Chair of ISCGM

Rapporteur: Dr. Karen Kline, Japan

Six panelists will discuss various issues on the Global Mapping Project such as: What have been achieved? What challenges remain? What affects had the project had on sustainable development? What impact has this had on national mapping organizations and agencies? How can the goals and objectives of the project be more effectively disseminated to increase collaboration?

Panellists:

- Nick Land (EuroGeographics) presentation
- Kombo Mwero (Survey of Kenya) presentation
- Francisco Hansen (INEGI, Mexico)
- Raja Ram Chhatkuli (Nepal Survey Department) presentation
- **Jay Donnelly** (U.S. Geological Survey)

Technical Programme 48/49

Thursday, April 21, 2005 14:30-16:30

Closing Ceremony

Venue: Cleopatra Ballroom

- Closing remarks of the Local Organising Committee, Eng. **M Mosaad Ibrahim**, Secretary General of the Organising Committee and Past Chairman of ESA
- Closing remarks and conference resolutions from GSDI, Prof. **Harlan Onsrud**, President of GSDI
- Closing speech and summary of the Summary of the Conference, Prof. **Holger Magel**, President of FIG
- Appreciation to the organisers
- Closing of the conference

Technical Programme 49/49