

FIG XXIII Congress

Cost Effective Survey Measurement
and Mapping of Informal Settlements
The FIG Focus

Munich 12th October 2006

Dan Schnurr, Chair FIG WG 5.4



Presentation Structure

- Review of 2002 to 2006
- Research and work carried out
- Preparation of the FIG Publication
- Summary and Plan for 2006 to 2010

2002 Congress XXII

- Washington DC; mission statement from text of keynote address by Dr. Anna Tibaijuka, UN-HABITAT:

*"To identify more cost effective ways to improve the availability and accessibility of tools of land information.
To suggest these methods to aid more effective planning, development and management of the environment.
Also to develop innovation, adaptation and resourcefulness in simplifying these tools to fit the local situation."*

2003 Working Week

- Paris; formation of Working Group 5.4
 - Dan Schnurr, UK –Chair
 - Chryssy Potsiou, Greece
 - Gerda Schennach, Austria
 - Orhan Ercan, Turkey
 - Tim Viney, UK
 - Jo Padeyi, Trinidad and Tobago
 - Peter Dare, Canada
 - Mabel Alvarez de Lopez, Argentina
- Work Plan published on FIG website:
 - www.fig.net/figtree/commission5/wgroups/wg54.htm

2004 Working Week

- Athens; 2 Papers in dedicated session:
 - Review of the Existing Cost Effective Surveying Technologies and Techniques (TS13.1, Schnurr)
 - Challenges of Providing Spatial Data to Developing Countries (TS13.2, Potsiou & Woodsford)
- Idea that an FIG Publication could provide the necessary guidance and suggestions of techniques appropriate to the local situations

2005 Working Week

- Cairo; presentation of one paper:
 - The Development of an FIG Survey Specification (TS17.5, Schnurr)
- Suggested document structure and format, issues to be reviewed and programme for publication

• **Munich; dedicated session, 4 papers:**

- Cost Effective Survey Measurement and Mapping of Informal Settlements - The FIG Focus (TS73.1, UK)
- Geo-referenced Balloon Digital Aerial Photo Technique a Low Cost High-Resolution Option for Developing Countries (TS73.2, Cambodia)
- Some Experiences on Using Handheld GPS and Camcorder as a Truly Low-cost Mapping Systems (TS73.3, Indonesia)
- Contributions of Surveying in the Development of Regional Infrastructures – An African Perspective (TS73.4, Nigeria)

- **Web-searches and a review of papers previously published at other conferences**
- **Lessons learned from working on real projects world-wide**

- **Problems related to "specifications"**
- **Problems related to funding**
- **Problems with sustainability**
- **Needs vs. resources**
- **Required knowledge vs. available skills**

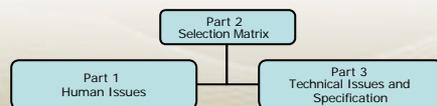
- **Hand-held GPS (with 'choke ring')**



- **Airborne / Satellite Imagery**



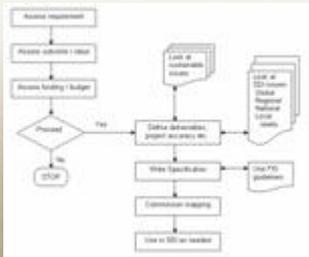
- **Proposed Structure**



Proposed flow line



- Document based on important decision chain and agreed method of selection



Publication structure



- Guidelines for Cost Effective Survey Measurement and Mapping of Informal Settlements
- Part 1 – Review, Plan, Act
- Part 2 – Technical Issues

Part 1 Structure



- Review –
 - Assess the existing situation
 - Evaluate requirements and opportunities
- Plan –
 - Funding
 - Define requirements
- Act –
 - Specifying new mapping
 - Tendering and procurement

Part 2 Structure



- General Requirements
- Technology Review
- Geodetic Framework
- Data Capture
- Data Processing
- Product Delivery

The next steps



- UH-HABITAT have provided feedback and agreed to draft structure
- Document structure is completed
- Final writing and publication
 - Last quarter 2006 – finalising text
 - First quarter 2007 – review
 - Working Week 2007 – Publication