The Development of an FIG Survey Specification

Dan Schnurr FRICS
Commission 5, UK
Chair FIG WG 5.4

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Structure of Presentation

1. Review of WG 5.4 team
   – Structure, remit and work plan

2. Developments since FIG WW2004
   – Work in developing countries
   – Feedback from other organisations

3. Development of the proposed FIG document

4. Other cost effective issues

5. The next steps

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Working Group 5.4 'team'

- Current Working Group 5.4 –structure
  – 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

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Working Group 5.4 –remit

- From the keynote address given by
  Dr. Anna Tibaijuka, UN-HABITAT to the XXII
  FIG Congress in Washington DC, 2002

  "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."

- Work plan:
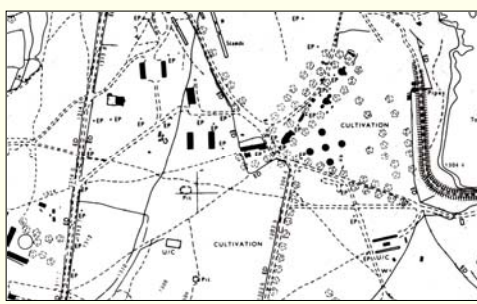 – www.fig.net/figtree/commission5/wgroups/wg54.htm

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In reality – moving from…

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To….

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1

Developments since Athens

- Feedback from organisations
  - Real teams working on real projects
  - Key problem is how to include cost effective technology and methods in a survey specification
- Review of Athens Papers
  - Standardised procedure is required
  - Funding and combining projects
  - New specification is required

Proposed Document

- An all-encompassing FIG document covering:
  - Best practice guidelines
  - Use and selection of cost-effective methods and techniques
  - Funding and cost recovery
  - GSDI, 'products', future-proofing
  - Guidance on generation of an appropriate technical specification for a project

Current *working* Title

- Guidelines for Cost Effective Mapping of Informal Settlements

- FIG Publication Number 36?

Proposed Structure

Part 2
Selection Matrix

Part 1
Human Issues

Part 3
Technical Issues and Specification

- 'soft' issues…
- funding / cost recovery
- sustainability

- 'hard' issues…
- technology available
- specification clauses

Part 2 – Selection Matrix

Input – set the project requirements		
Accuracy required	± 0.2m	
	± 0.4m	☒
	± 1.0m	
	± 2.0m	
2D or 3D ??	3D	
Output format	DTM	
	Vector Mapping	☒
	Raster	☒
Imagery type (optional)	Aerial Photography	☒
	Satellite	
PROCESS		
Output – cost effective techniques to consider		
Mapping Scale	1:2,000	
Imagery	1:8,000 Vertical Aerial Photography	
Control Measurements	Level4 GPS[1]	

Hard Copy and Web Based

- Two formats
- Hard Copy FIG Publication (part 1)
  - Issues that will not date quickly
  - Funding, future proofing, best practice
- Digital Copy – on web (parts 2 & 3)
  - Selection matrix (Part 2)
  - Issues that do date rapidly
  - Technology, methods and techniques

From the document a survey specification is generated...

- Radical format:
  - Project information
  - Specification of deliverables required
  - Delivery schedule required
    - then...
  - Control and geodetic information
  - Imagery specification
  - Detail capture specification
  - QA / QC requirements

TS17.5 / FIG WW2005 / GSDI-8 / Cairo, Egypt

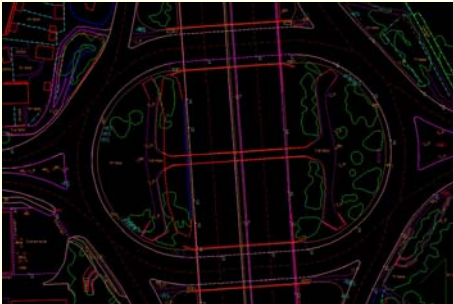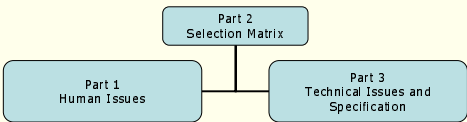THE UK'S LEADING PROVIDER OF AERIAL PHOTOGRAPHY AND DIGITAL MAP SOLUTIONS

Other cost effective issues

- Project Coordination
  - Pooling of resources and harmonising requirements

- Pre-qualification of practitioners
  - 'Buy cheap – pay big' problems...
  - Cheapest may not be most cost effective

- Competitive tender bidding
  - Rejection if unacceptable spread of bids

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Most recent work

- Feedback from this paper :–
  -
  -
  -
  -
  -
  -
  -

- So far..... not much.....

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Next Steps

- Focussed Working Party,
  - Could be Cuba, or another location

- Draft Structure to UN-HABITAT

- First Draft End of 2005

- Final revisions and publication at FIG Congress XXIII, Munich 2006

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