



**New Positioning Techniques Forum**  
FIG Working Week 2007, Hong Kong.  
Wednesday 16 May 2007, 1100-1230 : Shek O

A summary of the recommendations (from the presentations) for FIG roles and responsibilities.

**Esmond Mok**

1. Provide platforms to discuss and share investigation efforts and outcomes, and promote applications of emergent technologies.
2. Coordinate investigation outcomes to provide expert advice on the performance of emergent positioning technologies [accuracy achievement under different site conditions, effective signal transmission range, sources of errors and interferences, etc.]
3. Develop standard testing and calibration procedures.
4. Establish networks with electronics and information technology professions.

**Joel van Cranenbroeck**

Now what will be the duty of such a new Working Group?

1. To evaluate the state of the technology and its implications for our surveying world (and have all research, initiatives and communications gathered, shared and analyzed by such a dedicated WG).
2. To establish contact with the new ICT partners of our profession: the telecommunications and IT companies.
3. To organize a dedicated open space ( Annual Conference, Forum, Symposium ... ) to gather all the actors of the “Positioning Infrastructures” under the surveying perspective, which will fairly contrast with existing organizations such as ION, GNSS,
4. To compile and edit a kind of “FIG Document for creating and maintaining Positioning Infrastructure” that could be considered as guidelines covering all elements and sub-elements.
5. To highlight the role of the surveyors in such a new service = create positioning infrastructure ( in the past we were in charge of Geodetic and Control Networks ).
6. To better define what we understand with a “multiple applications positioning infrastructure” ... what would be the user profile ? What would be the different business models ? Where do we want to migrate ?
7. To take our ‘share’ in the near future “Ubiquitous World” as Surveyor.

**Rudolf Staiger**

### Actions within the Special Study Group

1. prepare the creation of a working group – representatives from manufacturers, academics, surveyors, communications industry, Sister-Organizations
2. facilitate forums on this topic and relevant symposiums
3. address standards and best practice guidelines
4. disseminate information – website portal, newsletters
5. instigate and facilitate discussion
6. produce a ‘dynamic’ publication including a dictionary explaining all the different Technologies

### Other Issues raised –

- It is important to establish the relationship of these technologies to a reference frame - Chris Rizos
- be lobby voice to the mobile phone network providers to access data streams – Mark Burbidge
- Ubiquitous Positioning – Esmond Mok
- Examine and monitor AGPS, RFID, WiFi and how CORS assist this infrastructure– Esmomd Mok
- Investigate transfer of data via other communication services other than the navigation types NMEA or RTCM – Joel van Cranenbroeck
- What is the definition of infrastructure? Must consider end user and implementation tools – Dave Ziloski
- Explore participation with ‘Ubiquitous Computing’ (“ubicom”) or CeBit conferences – Chris Rizos
- Who will co-ordinate or geo-reference RFID tags? - Joel van Cranenbroeck and Chirs Rizos
- We need more studies into accuracies and setting of standards – Chris Rizos
- Need to link to the GIS community – Chris Rizos
- Contact Electrical Engineers or similar professional organizations to present at conferences or discuss issues? – Matt Higgins
- Need to promote our interest in these technologies to the ICT community – All
- Need to consider and investigate ‘spectrum’ protection and management – Larry Hothem
- What are the implications and the relevance of this topic to surveyors? – David Martin
- New working group should look at holding a symposium on this topic – Matt Higgins, Chris Rizos
- Must watch the development of RFID networks and 2-way data transfer – Chris Rizos
- FIG to create a “cookbook” on this topic – Ruth Neilan

### Commission 5’s Recommendations for the next ‘Phase’

- The working group be a sub working group of 5.3 and be called 5.3.?? Special Study Group – New Positioning Techniques and Infrastructures. Andrew Hunter will be the Chair.
- Rudolf and Andrew to prepare a letter asking for members to participate in this special study group.

- Rob and Mikael to prepare notes from the forum and circulate to panel and Steering Committee.
- Andrew along with the 'new' team to prepare a work plan for this study group.
- A Comm 5.3.?? website will need to be created to disseminate information and promote the workings.
- A 'discussion' website (such as "Blackboard") for the new working group to be created by Andrew Hunter.
- The working group team and the workplan's frame work should be finalised by November 2007 for the 4th International Symposium on LBS and TeleCartography being held in Hong Kong at the HK Polytechnic University. This will allow attending working group members to unveil their new Commission 5 working group.