



International Federation of Surveyors  
Fédération Internationale des Géomètres  
Internationale Vereinigung der Vermessungsingenieure  
**Commission 5**  
Positioning and Measurement (2002-2006)  
[www.fig.net/figtree/commission5](http://www.fig.net/figtree/commission5)

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## Newsletter

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### **Report on the FIG Regional Conference 'Promoting Land Administration and Good Governance' 8-11<sup>th</sup> March 2006, Accra- Ghana**

The FIG Regional Conference 'Promoting Land Administration and Good Governance' held in Ghana on the 8-11 March 2006 was a successful event for Commission 5. The level of participation at most Commission 5 technical sessions was excellent as there were many lively discussions and all sessions were well attended, with some attracting up to 100 delegates. The Commission 5 technical program was-

- TS 11 - Land Management Using GNSS and GIS
- TS 15 - Geodetic and GNSS Developments
- TS 19 - Positioning and Measurement in Practice

Refer to website for technical sessions proceedings <http://www.fig.net/accra/>



The main highlight for Commission 5 was the African Reference Frame (AFREF) Workshop facilitated by the Commission, UN ECA (United Nations Economic Commission for Africa), RECTAS (Regional Centre for Training in Aerospace Surveys) and members of the AFREF Steering Committee. Both sessions attracted energetic and vigorous debate concerning the drivers for the project and the 'way to move forward' if this project is to succeed. The main issues discussed were:

- Using other workshops and conferences to promote AFREF objectives, participation and sustain interest;
- Developing strategies to gain resources (funding) for AFREF and
- Operational and infrastructure topics relating to reference frame maintenance, implementation and GNSS networks.



The AFREF Steering Committee representative (Richard Wonnacott) has prepared a report on the workshop, which will be sent to the UN ECA to consider the detailed recommendations. In addition, the FIG President will write the covering letter to UN ECA commending the report and confirming FIG's ongoing commitment to the AFREF Project.

Commission 5 wish to thank Ruth Neilan (IAG-IGS), Chukwudozie Ezigbalike (UN ECA), Jide Kufoniyi (RECTAS), Richard Wonnacott (AFREF Steering Committee) and all presenters and delegates in these sessions for making this forum a great success.

Overall the conference was a 'winner' as revealed by the following conference statistics -

- Almost 700 participants from 50 countries - representatives from 20 African countries and from 30 countries on other continents;
- 150 papers were presented and published;

- 25 technical sessions and workshops on AFREF, Education in Africa and on Cadastral Domain model ;
- five parallel sessions with the biggest session drawing over 200 listeners and plenary sessions more than 350.



Other Commission 5 activities included -

- Attendance to the meeting of the Advisory Committee of Commission Officers (ACCO) by Matt, Rudolf and Rob;
- Several meetings to discuss the existing Work Plan for Commission 5 and to also discuss Rudolf's progress with drafting his Work Plan for 2007-2010;
- Active participation in the social events of the conference.



In summary, Commission 5 hope our efforts at this Conference will make a difference when building Africa's spatial capacity. It was also clear to the Commission 5 officers that the Africans present have the necessary skills, talent and desire to build a vibrant land administration and survey industry to assist the development of Africa as a whole. However, they also realise the need for international organisations such as FIG to provide on going support and assistance to help realise the 'opportunities'.

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**Report on NKG General Assembly**  
**May 29-June 2, Copenhagen, Denmark**  
**Web site: <http://www.frontlinien.dk/NKG/index.asp>**

The **Nordic Geodetic Commission** -- founded in 1953 -- is an association of geodesists from Denmark, Finland, Iceland, Norway and Sweden. Its purpose is to give the members the opportunity to meet and exchange professional views and experiences. In order to achieve this aim, the Commission arranges general meetings and conferences for Nordic geodesists. General meetings are nowadays held every 4 years and privilege to host such an event is rotated between the participating countries. This year it was Denmark's turn to arrange the General Assembly.

NKG has four core working groups:

- Height Determination
- Geodynamics
- Geoid Determination
- Positioning and Reference Systems

And two special working groups :

- Nordic Geodetic Observing System
- Nordic Real-Time Positioning Service

More information about NKG can be found at <http://www.nkg.fi>

The General Assembly consisted of six scientific sessions with invited speakers and affiliated poster sessions. The invited presenters included Nordic identities Lotti Jivall, Jan Johansson, René Forsberg, Jaakko Mäkinen, Markku Poutanen and Per Knudsen and the non-Nordic speakers were Markus Rothacher, Ludger Timmen and Pippa Whitehouse. Further details about the program, posters and abstracts can be sourced from <http://www.frontlinien.dk/NKG/index.asp>

The event attracted some 80 delegates, primarily from the Nordic countries but there were also participants from the Baltic and Northern Europe countries. Besides some very interesting presentations and discussions, the future of NKG organisation was also discussed.

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## Coming FIG Events

**FIG XXIII Congress and XXIX General Assembly**  
**8-13 October, Munich, Germany**  
**Web site: <http://www.fig2006.de>**

## .....Commission 5 Activity at the FIG XXIII Congress .....

Over 100 abstracts relating to Commission 5 topics have been submitted for Congress. The Commission 5 Steering Committee and Commission Chairs have assessed and short-listed the abstracts and a proposed program will be published early June. The abstracts focussed on core Commission 5 topics such as-

- ❖ Geodetic Infrastructure & Theory ;
- ❖ GNSS Processing & Applications ;
- ❖ Measurement ;
- ❖ Mobile Mapping and Location based Services ;
- ❖ Photogrammetry and Remote Sensing ;
- ❖ Reference Frame ;
- ❖ Vertical Reference Frame ; and
- ❖ RTK/CORS networks.

It is expected that by early June 2006 selected authors will have received confirmation that their paper has been accepted. Note, the dead line for full papers is 15 July 2006.

To all Commission 5 Delegates please be aware that the Commission 5 Steering Committee are also organising the following events in Munich -

- An "GNSS RTK / CORS Network Providers and Users Forum" which includes invited overview papers, papers / posters and a panel discussion around this topic

And

- A combined FIG / IAG forum on 'Geodesy' and 'Positioning' which includes papers on subjects as ITRF2005, GGOS, SIRGAS, and EUREF.

Also when registering for **FIG XXIII Congress in Munich** please consider attending the technical tours to German Aerospace Centre (Galileo) and to the Bavarian Government for Surveying and Geographic Information which has Bavaria's part of the SAPOS network.

Website for registration is -

<http://www.fig2006.de/e/registration.htm>

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**FIG XXX General Assembly and Working Week.**

**12-17 May, Hong Kong SAR, China**

**Web site: [www.fig.net/fig2007](http://www.fig.net/fig2007)**

**Deadline for submitting abstracts will be 30 November 2006.**

**5th International Symposium on Mobile Mapping Technology.**

**Organised by FIG Commission 5, IAG and ISPRS.**

**28-31 May, Padova, Italy**

**Contact: [naser@geomatics.ucalgary.ca](mailto:naser@geomatics.ucalgary.ca)**

**Web site: [http://www.cirgeo.unipd.it/sitocirgeo/mmt\\_frst.html](http://www.cirgeo.unipd.it/sitocirgeo/mmt_frst.html)**

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## Other Commission 5 Activities and News of Interest

- Australia's Earth Science and Geodetic community are proposing to improve the nations Geospatial Reference System by enhancing the country's geodetic infrastructure. The proposed expansion includes several VLBI / SLR sites and the establishment of 100 plus GNSS CORS network across the continent. Such infrastructure will facilitate scientists and researchers to gain a better understanding of the Australian continent ; support positioning applications ; contribute significantly to the enhancement of the ITRF ; and subsequently improve the accuracy of the geospatial reference system that underpins the Australian society's fundamental datasets and economic activity.  
See website - <http://www.auscope.org.au> for more information.
- The Swedish Network of Permanent GNSS stations, SWEPOS™ has now exceeded 100 stations and is still growing! SWEPOS is a national network of permanent reference stations for GPS. The purpose of SWEPOS is to provide data from the GPS and GLONASS satellites for several applications - from real-time positioning with metre accuracy for, among other things, navigation and data collection for geographic databases and to study crustal movements of the Earth with millimetre accuracy. Development work is currently underway to provide RTK services based on SWEPOS in some regions of Sweden. The network concept is used for these services and testing of available software in the market is in progress. SWEPOS data is provided for post-processing via an FTP server. It is also possible to submit a file with observation data in RINEX format on the SWEPOS web site and obtain coordinates for the observation site together with quality parameters. The network consists of 21 core stations and the remainder are dedicated Network-RTK stations and these are considered simplified stations. For more information, please go to <http://www.swepos.com>
- ITRF2005 is expected to be available during the summer 2006 according to Zuheir Altamimi, France. ITRF2005 is the new solution following the previous ITRF2000. The solution will be available at <http://itrf.ensg.ign.fr/> as well as information about the computation of it. Unlike the previous ITRF solutions, ITRF2005 will be based on the combination of time series of station positions and EOPs. The latter should cover as long a time interval as possible but at least 6 years (say 1999-2004), a period over which we expect to have solutions containing EOPs from all the techniques. This new ITRF solution will include all available data for station positions, such as for instance VLBI and SLR data since the eighties. Weekly or (daily VLBI) solutions will allow better monitoring of non-linear motions of stations and other kind of discontinuities in the time series.
- CONGRATULATIONS to Mikael and Christina Lilje on the recent birth of their son - " JACOB " ..... Best Wishes from the Commission 5 Steering Committee !

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## Commission 5 2007-10 Workplan

To all Commission 5 participates - active or non active, below are the proposed working groups for Commission 5 term 2007-10. If you have any ideas or comments on these proposed working groups OR wish to be part of the 2007-10 Commission 5 team please email your thoughts to Rudolf Staiger (Chair-Elect) -

[rudolf.staiger@uni-essen.de](mailto:rudolf.staiger@uni-essen.de)

The proposed working groups are as follows -

- Standards, Quality Assurance and Calibration
- Reference Frame in Practice
- Multi-Sensor-Systems for Mobile Mapping
- GNSS Developments and Modernization
- GNSS Networks
- Low Cost Surveying Technology and Techniques for Developing Countries
- Terrestrial Laser Scanning (in-conjunction with Commission 6)

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**Commission 5.2 Website on Reference Frames will soon be launched !**

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If you would like to circulate Commission 5 NEWS to all our members please email your item for consideration to the Vice Chair of Administration -

[robert.sarib@nt.gov.au](mailto:robert.sarib@nt.gov.au)

**NEXT NEWSLETTER**

**Before the FIG XXIII Congress in Munich !**