

## Report of Working Group 5.2 – Reference Frame in Practice

The work of WG-5.2 has so far been focused on

- outlying topics for fact sheets and invited papers to seminars
- organising sessions at FIG Working Week in Paris, 2003
- organising sessions at FIG Regional Conference in Marocco, 2003
- creating a core member-group as well as reference group

The core member group consists of

Michel Kasser (France), Mikael Lilje (Sweden), Rob Sarib (Australia), Antonio Hernández-Navarro (Mexico), Peter Dare (Canada) and Mike Craymer (USA)

and the reference group consists of

Bengt Eurenus (Sweden), Françoise Duquenne (France), Per-Ola Eriksson (Sweden) and Vladimir Sedlak (Slovakia) and Matt Higgins (Australia)

The next step would be to contact these persons, especially the core members to start discussing the working group tasks for the next 2,5 years based on the work plan for the working group. Among topics for fact sheets as well as invited papers are:

- How to assist the users during the shift from an old geodetic datum to a modern one, computation of transformation parameters versus use of a continuous transformation grid. This problem is more or less the same for a whole country or for a large city.
- How to promote the use and the set up of permanent GPS stations: local RTK versus post processing, access to data, archives maintenance, ...
- How to explain to the users the difference between the geodetic datum and the projection, and how they should check that the transformations are correctly processed in any new software, especially GIS.
- How to marry at best GPS and national levelling network maintenance, and how to think about specifications that would be optimal for the users and not only for the national geodetic operator as it was made up to now.
- How to facilitate the relations between local administrations and surveyors, by a proper redaction of the technical specifications for surveying works: often these specifications are very general and inappropriate, as in the local administration people have not enough knowledge in geographic information.
- Something explaining going from GPS-co ordinates to plane/vertical co-ordinates (GPS reference frame, 7 parameter, map projection/geoid etc)
- Global reference frame incl. something about continental drift/land uplift
- Something summarizing where to find transformation parameters (to national systems) on web and to suitable organisations (not so technical fact sheet...)
- Short summary of different GPS positioning techniques.

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