

Report on Standards, Quality Assurance and Calibration FIG WG 5.1 Activities in 1998-2002

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Key words: Surveying Instruments, Standards, Quality Assurance, Calibration.

ABSTRACT

Activities of FIG WG 5.1 have been oriented on following key issues:

- Development of standards affecting geodetic instruments and methods,
- Acceptance controls, quality assurance and certification and their impact on the surveying profession,
- Checking and calibration of measuring instruments.

Tasks resulting from the key issues have been ensured through specific projects oriented on promotion of standards and guidelines to the surveying community and through guidelines and recommendations for checking and determination of field accuracy of total stations, digital levels, laser planes etc. and for their calibration, including laboratory calibration. Members of the WG collaborated also with the FIG Task Force on Standards and participated in the relevant technical committees of the International Organisation for Standardisation (ISO) and other appropriate bodies, like Work Party on Quality Assurance of the CLGE, Work Group on Quality Issues of the EuroGeographics, National Standardisation and Metrological bodies.

The promotion and dissemination of achieved results have been ensured through active participation numerous national and international seminars and conferences and through participation in multinational projects. Let us name only the most important once in chronological order:

- 35th International Geodetic Information Days, November 1998, Brno, Czech Republic
- Jubilee Seminar "Geodesy and Surveying in the Future – the Importance of Heights, March 1999, Gävle, Sweden
- XIIIth International Course on Engineering Surveying, March 2000, Munich, Germany
- International Seminar "The Mediterranean Surveyor in the New Millennium", September 2000, St. Julian's, Malta
- Seminar on "Quality Management in Geodetic Measuring Techniques", November 2001, Fulda, Germany
- Sessions dedicated to Standards, Quality Assurance and Calibrations during the FIG Working Weeks in Sun City 1999, Prague 2000 and Seoul 2001
- Continuous participation in the activities ISO TC 211 Geographic Information/Geomatics and ISO TC 172/SC6 JWG Optical Instruments

Activities of the WG resulted in several important achievements, mainly in:

TS5.1 Commission 5 Activities: Yesterday and Tomorrow

1/2

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Report on Standards, Quality Assurance and Calibration – FIG WG 5.1 Activities in 1998-2002

FIG XXII International Congress

Washington, D.C. USA, April 19-26 2002

- Elaboration of the new proposal of a new ISO standard for levelling instruments which is a result of joint effort inside ISO of Technical Commission TC172/SC6 JWG (Optical instruments: levels, theodolites, EDM, invar staffs, etc.). The proposed standards are adapted not only to check the instruments from the constructor`s point of view but also to satisfy the field surveyor`s needs,
- Metrological comparison of length and azimuth standards between German and Czech geodetic laboratories according to ISO standards carried out in July and August 2001 enabled to test the procedure for accreditation of a geodetic laboratory according to ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories".

The latest information about the situation in the field of was presented at the 54th CPD Seminar organised by the German Association of Surveying in November 2001, in Fulda that dealt in detail with Accreditation, Certification and Traceability to National Standards, Calibration, Uncertainty of Measurements, Testing of Geodetic Measuring Equipment.

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