

**Report to the 25th General Assembly
FIG Congress in Washington, 19-26 April 2002**

**FIG COMMISSION 4
HYDROGRAPHY
REPORT OF ACTIVITIES 1998–2002**

1. INTRODUCTION

The terms of reference for FIG Commission 4 are as follows:

- Promote the aims and objectives of FIG to Hydrographers through the active involvement of national delegates from member associations and other interested parties in the activities of the Commission.
- Develop guidelines and standards that will assist Hydrographers in the provision of their services.
- Disseminate information relevant to the profession through participation in international meetings, conferences and committees.

These objectives are pursued through a number of activities including Commission 4 sponsored workshops and working groups engaged in investigating and reporting on specific topics and the activities of two standing committees with the joint participation of the International Hydrographic Organization.

As mentioned above, Commission 4 represents FIG in two FIG/IHO standing committees: the International Advisory Board on Standards of Competence for Hydrographic Surveyors and the Technical Assistance and Co-operation Co-ordination Committee (TACC). The Advisory Board has two primary responsibilities: the development and updating of the Standards of Competence for Hydrographic Surveyors and the recognition of courses given by educational institutions that meet these Standards. The Board also produces a publication of the standards, which is currently in its 8th edition.

The Technical Assistance and Cooperation Coordinating Committee has the following Terms of Reference:

1.1. Assess continuously the hydrographic surveying, bathymetric maps, nautical charting and nautical information status of nations and regions where hydrography is developing and provide guidelines for the development of local hydrographic capabilities.

1.2. Actively promotes the correct perception of the importance of proper hydrographic surveying, bathymetric maps, nautical charting and nautical information to all coastal states. Encourage the co-ordinated provision of technical and financial assistance to hydrographic development projects by establishing close relationships with national agencies and relevant international organizations which may provide funding or other support.

1.3. Encourage and subsequently follow the development of bilateral or multi-lateral arrangements between countries having well established Hydrographic Offices, and

hydrographic survey organizations, and those desiring to establish or expand their hydrographic capabilities.

1.4. Maintain a current inventory of all hydrographic surveying, bathymetric maps, nautical charting and nautical information projects involving co-operation with or technical assistance to nations which do not yet have adequate capabilities. Such projects can include academic and on-the-job training, provision of expert advice and provision or loan of equipment which may be under consideration, in progress or recently completed. Maintain, as well, a current inventory of assistance opportunities available from potential donor nations.

1.5. Make such inventories available to international and national organizations and funding or contributing agencies, so as to ensure maximum benefit and avoid waste or duplication of expense and effort. Unless stated otherwise, the information provided to the Committee will be made available on request.

2. 1999 ACTIVITIES

The following is a summary of activities in 1999:

- The Commission executive attended the FIG working week in Sun City, South Africa and organized a technical workshop that featured an excellent presentation by Neil Guy, Director of the International Hydrographic Bureau. The Commission also held a Commission meeting during the Working week.
- The Commission sponsored a one-day workshop at the 6th SE Asian Hydrographic Conference that was held in Fremantle, Australia from Nov 1-5, 1999. The workshop presented a broad range of papers covering topics from airborne laser mapping to using GPS for maintaining tidal datums. The latter resulted in a resolution to the Plenary of the Conference to accelerate activities to establish an integrated network of tide gauges and GPS stations for absolute sea-level determination in South East Asia.
- Following the workshop, the Port of Fremantle provided Conference delegates with an excellent tour of the Port facilities which was highlighted by a presentation by port officials on the modelling software used to determine under keel clearance in the Port. The tour was then followed by the Annual meeting of the Commission.
- The XIIIth meeting of the Technical Assistance and Co-operation Co-ordination Committee (TACC) was held in Mobile (Alabama), USA from 26-29 April 1999, in conjunction with the 1999 US Hydro Conference. The major topic of discussion at the meeting was the development of a Workplan for the Committee. The workplan consisted of three sub-committees tasked to carry out the following objectives:
 1. Assess continuously the hydrographic surveying, bathymetric maps, nautical charting and nautical information status of nations and regions where hydrography is developing and provide guidelines for the development of local hydrographic capabilities.
 2. Actively promote the correct perception of the importance of proper hydrographic surveying, bathymetric maps, nautical charting and nautical information to all coastal states. Encourage the coordinated provision of technical and financial

assistance to hydrographic development projects by establishing close relationships with national agencies and relevant international organizations that may provide funding or other support.

3. Encourage and subsequently follow the development of bilateral or multi-lateral arrangements between countries having well established Hydrographic Offices, and hydrographic survey organizations, and those desiring to establish or expand their hydrographic capabilities.
- The XXIInd Meeting of the FIG/IHO International Advisory Board on Standards of Competence for Hydrographic Surveyors met in Delhi, India, on 7 - 14 April 1999. The FIG Bureau has appointed Mr. Gordon Johnston, Chief Surveyor of Racal Surveys Ltd. as a new member to the Advisory Board. At the meeting in New Delhi, the following courses received Category A recognition: the Long Course in Hydrography of the U.K. Royal Navy Hydrographic School and the Advanced Course in Hydrography of the Japanese Maritime Safety Agency. Category B recognition was awarded to the Free Course in Hydrography of the National Hydrographic School in Goa, India and the International Hydrographic Management and Engineering Program of the Naval Oceanographic Office (USA). Lastly, the course in Hydrography of the St. Petersburg Naval Academy (former Frunze Naval Academy) was given Category A recognition.

3. 2000 ACTIVITIES

- There was no Commission 4 session in the Technical Program for the Prague Working week, and only a few Commission 4 delegates were in attendance. Nevertheless, the Commission Chairman met with some national delegates to Commission 4 on an informal basis to discuss the activities of the Commission and to get guidance on the future direction of the Commission. Jerry Mills, national delegate from the United States, suggested that the Commission should build stronger links with the various national Hydrographic Societies throughout the world. In addition, Commission 4 did sponsor a paper on Quality Management in the Technical Session devoted to Standards and Quality. The chairman also met with Wilfried Schleider, national delegate from Germany, to discuss the work of the Technical Assistance Coordinating Committee (TACC) and the Chairman on the Task Force on Sustainable Development to discuss the input from Commission 4 to the draft paper that was circulated and discussed during the ACCO meeting.
- The Commission sponsored a session at “The Mediterranean Surveyor in the New Millennium” Conference that was held in Malta from September 18-21, 2000. The session included presentations covering topics from determining national tidal datums to the operations of the local hydrographic authority in Malta. The session was followed by an informal forum during which delegates discussed topics of general interest to the hydrographic surveying community. Following the workshop, the Conference delegates were provided an excellent tour of the hydrographic facilities in Malta which included a very interesting presentation on a new harbour development project on the Island.
- The XXIIIrd Meeting of the Advisory Board was held at the Hydrographic Office of Chile in Valparaíso, from 12 to 18 April 2000. It was hosted by the Chilean Hydrographer. The following courses received Category A recognition: the Joint International Hydrographic Applied Science Program of the University of Southern Mississippi-NAVOCEANO

(USA) and the Hydrographic and Oceanographic Course for Naval Officers of the Chilian Hydrographic Office. Category B recognition was received by The Harbour and Coastal Management course of IMA (Trieste).

4. 2001 ACTIVITIES

- The Commission held its annual commission meeting at the 2001 FIG Working Week in Seoul, Korea and the following topics were discussed:
 - The 2002 Congress in Washington – Topics for the technical sessions were discussed. In addition, ideas for technical tours were developed and the possibility of combining a technical tour with a social evening received a favourable response.
 - The 2001/2002 Workplan – The Commission has provided input to the work of the task forces on Sustainable Development and Standards. This work will continue for the Standards task force. In addition, the Commission will look at what can be done to start to implement the recommendations in the Sustainable Development report that pertain to hydrography.
 - The workplan for the 2002-2006 period was discussed. The Commission decided to apply the following principles when developing this plan:
 - Align the work with the strategic directions of the FIG Council
 - Look for opportunities to work co-operatively with other Commissions
 - Ensure that the interests of the Commission delegates are addressed.
- The Commission also organized a technical sessions at the Working Week in Seoul and participated in a tour of the Korean Hydrographic Offices. The tour was very interesting and informative. The Korean Hydrographic Office produces 273 paper nautical charts. It has recently converted 205 to Electronic Navigation Charts making it one of the major produces of Electronic Navigation Charts in the world.
- In September 2001, the Commission organized a technical session at the Institute of Surveyors Australia Congress in Brisbane. We also participated in a Plenary Session on the Marine Cadastre that was widely attended and generated good discussion amongst the delegates. During the Congress, the Commission executive took the opportunity to visit the Port of Brisbane survey offices.
- The XXIVth Meeting of the A. Board was held at the International Maritime Academy (IMA) in Trieste, Italy, from 3 to 9 May 2001. It was hosted by the IMA. FIG Commission 4, appointed Dr. Mahmud to the Board to replace Dr. Razali Ahmad who had been an FIG appointed Board member since 1993. This appointment maintains the Board membership at its full complement of four FIG and four IHO appointed members. The Board decided to award recognition at Category A to the following: Engineering Course with Hydrographic Option of SHOM –Ensieta (France); MSC in Hydrographic Surveying of the University College of London Authority (UK); Hydrographic Surveyors Program of the Naval Academy of Colombia; Graduate Program in Ocean Mapping of the Joint International Hydrographic Applied Science Program of the University of Southern Mississippi-NAVOCEANO (USA); the Course in Geomatics and Hydrography of the Hanburg University of Applied Sciences; and the LSGI Hydrographic Postgraduate Diploma of the Polytechnic University of Hong Kong. The Port Hydrography Course of the Bordeaux University attained Category B recognition. Mr. Svante Astermo (FIG)

assumed the Chairmanship and Cdr. Steve Shipman the Vice-chairmanship for a 3-year term beginning 1 July 2001.

- The Commission Vice-Chairman, Adam Greenland, attended the ACCO meeting in Copenhagen at the end of October and started the development of the Commission workplan for the period 2002-2006.

5. SUSTAINABLE DEVELOPMENT

In 1991, the FIG produced publication No. 3 entitled “Sustainable Development: a challenge and a responsibility for surveyors”. Since then, there has been significant progress and awareness related to the requirements for Sustainable Development. As a result, the 21st General Assembly endorsed the creation of a Task Force to revisit the issue of Sustainable Development as it pertains to the surveying profession. Commission 4 responded to this initiative by actively participating in the work of the Task force and by addressing issues relating to sustainable development in the coastal zone and the offshore.

6. STANDARDS TASK FORCE

At the 21st General Assembly, FIG created a Task Force on Standards. FIG believed that it can assist in the creation of workable standards covering survey activities by being involved in the work of the standards bodies (including but not limited to ISO). FIG can also assist in publicising and explaining the implications of standards for surveyors; as an international NGO, FIG is one of the few bodies through which surveyors can formally be represented in international standards activity. The Commission 4 nominated Rob Hare of the Canadian Hydrographic Service to serve on the Task Force who provided input into the activities of the Task Force.

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