



International Federation of Surveyors
Fédération Internationale des Géomètres
Internationale Vereinigung der Vermessungsingenieure

FIG COMMISSION 4
Hydrography



FIG Commission 4

FIG2013 ABUJA, NIGERIA

Dr. Michael Sutherland, MRICS (Canada and Trinidad & Tobago)
Chair, Commission 4, FIG
Deputy Dean (Undergraduate Students), Faculty of Engineering
Department of Geomatics Engineering and Land Management
University of the West Indies
St. Augustine, TRINIDAD & TOBAGO



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FIG COMMISSION 4
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FIG Commission 4



- **Over 60 Delegates, Correspondents and Academic Members**
- **Representation from over 50 countries**
- **Terms of Reference**
 - **Hydrographic Surveying**
 - **Hydrographic Education**
 - **Marine Environment and Coastal Zone Management**
 - **Data Processing and management**
 - **Nautical Charting and Bathymetric Mapping**




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Commission 4

Communications and Publications

- Official FIG Websites:
<http://www.fig.net/commission4/>
- A newsletter is published in *Hydro International* and is distributed free of charge to Commission 4 delegates.
- News from the Commission have been published in the *Hydrographic Journal*, *Geomatica*, *Geomatics World* and *Lighthouse*.



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FIG Publications

www.FIG.net




FIG PUBLICATION NO. 36
Administering Marine Spaces: International Issues
A publication of FIG Commission 4, E. T. Working Group 4.3

FIG PUBLICATION NO. 37
Report on the Economic Benefits of Hydrography
FIG Commission 4
Working Group 4.4 - Capacity Building and the Economic Benefits of Hydrography

FIG PUBLICATION NO. 38
Aguascalientes State
The First English-Speaking Province in the Development of a Sustainable Hydrographic Survey

FIG PUBLICATION NO. 39
Costa Rica Declaration
Pro-Poor Coastal Zone Management

FIG PUBLICATION NO. 40
Guidelines for the Planning, Execution and Management of Hydrographic Surveys in Ports and Harbours
FIG Commission 4
Working Group Hydrographic Surveying in Practice

FIG PUBLICATION NO. 41
FIG Guide on the Development of a Vertical Reference Surface for Hydrography



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FIG COMMISSION 4 Hydrography



Commission 4 Officers 2011-2014



- **Administration and Communications:** Gordon Johnston, MRICS (UK)
- **Working Group 4.1 – Ellipsoidally Referenced Hydrographic Surveys:** Jerry Mills (USA)
- **Working Group 4.2 – Standards and Guidelines:** Andrew Leyzack (Canada)
- **Working Group 4.3 – Optimizing Multi-Sensor Systems for Hydrographic Applications:** Prof. Dr. Volker Böder (Germany) – Deceased 
- **Working Group 4.4 – Maritime and Marine Spatial Information Management:** Dr. Jonathan Li (Canada)
- **Working Group 4.5 – Hydrography in Africa:** Angela Euonovbe (Nigeria), Commission 4 Chair-Elect



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ACTIVITIES OF THE CHAIR 2012



- Organizing sessions at FIG2012 (Rome, Italy) and the 8th FIG Regional Conference in Montevideo, Uruguay, and FIG2013 (Abuja, Nigeria), among the other duties of the position.
- Writes regular newsletter in a number of journals and magazines.

Specifically invited to speak at certain international events, and gave the following Commission 4 relevant presentations:

- Sutherland M. (2012). “Boundaries and Governance in Coastal and Marine Spaces”. Special invited presentation, European Union Permanent Committee on Cadastre (PCC), Cyprus, November 29-30.
- Sutherland M. (2012). “Spatially Enabled Governance”. Special invited presentation, UNRCC-PCGIAP International Symposium on Spatially Enabled Government and Society, Kuala Lumpur, Malaysia, February 15-16.

FIG

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FIG COMMISSION 4

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2012



- **Vice-Chair, Administration and Communications:** Gordon Johnston, MRICS (UK)
- Continues work with FIG/IHO/ICA International Board





- Jointly with IHO began organizing “Blue Economy” conference. The successful conference was held on Tuesday 9th April 2013 at the National Oceanographic Centre (NOC) Southampton, England.


FIG

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2012




- **Working Group 4.1 – Ellipsoidally Referenced Hydrographic Surveys:** Jerry Mills (USA)
- Work is progressing on writing and editing the proposed technical report on ERS surveys.
- Next Steps:
- Continue to engage the international hydrographic community in identifying and refining “best practices” for (a) the use of GNSS in vertical positioning relative to the ellipsoid for hydrographic surveying, (b) the development of vertical separation models and (c) the determination of uncertainty models for both of the above.
- Produce a publication on the above “best practices” and make a proposal to the International Hydrographic Organization (IHO) to include the information in this publication in the IHO Manual on Hydrography.



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FIG **FIG COMMISSION 4**
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2012



- **Working Group 4.2 – Standards and Guidelines: Andrew Leyzack (Canada)**

The working group continues to seek to:


- Promote the use of standards and guidelines to the surveying community;
- Review Standards coming from ISO TC211 (and other reputable sources) for relevance to Hydrography;
- Assess the impact of international standards on current industry practice;
- Represent Commission 4 on the FIG Standards Network;
- Promote recognition of professional pathways;
- Review IHO and other Manuals of Hydrography in conjunction with WG 4.3.



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2012



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FIG COMMISSION 4
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2012



- **Working Group 4.3 – Optimizing Multi-Sensor Systems for Hydrographic Applications:** Prof. Dr. Volker Böder (Germany). Died Tragically on Friday, 31st August, 2012.

Next Steps:

- The ftp site has to be filled up with information, published to interested user and later be switched to a website.
- The IHO Manual will be investigated regarding possible additions.
- Aspects of multi-sensor systems for hydrographic applications was presented at the Hydro12 conference in Rotterdam (NL) in November 2012 (hydro12.com).



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2012



- **Working Group 4.4 – Maritime and Marine Spatial Information Management:** Dr. Jonathan Li (Canada)

Involved in:


- Conference Chair, International Conference on Computer Vision in Remote Sensing, 16-18 December 2012, Xiamen, China
- Scientific Committee, 8th International Conference on Geo-information for Disaster Management (Gi4DM 2012), 13-14 December 2012, Enschede, The Netherlands
- Chair, Scientific Committee, International Symposium on Geomatics for Integrated Water Resources Management (GIWRM2012), 19-21 October 2012, Lanzhou, Gansu, China
- International Advisory Board, International Workshop on Laser Scanning Technologies and Applications (LSTA2012), 28 March 2012, Kuala Lumpur, Malaysia **[many more]**




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FIG **FIG COMMISSION 4**
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2012




- **Working Group 4.5 – Hydrography in Africa:** Angela Euonovbe (Nigeria), Commission 4 Chair-Elect
- In 2012 this working group continued engaging stakeholders with the aim of increasing recognition in Africa of the important contributions of hydrography to society's objectives, and to ensure that this discipline receives the public funding and support that it deserves.
- Continues to be involved with FIG Africa Task Force.



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FIG **FIG COMMISSION 4**
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Supports Young Surveyors Network seeks to improve the participation of young professionals in FIG activities, in particular, to increase co-operation between the commissions and young surveying professionals including students.

In a period where many of the member organizations are facing difficulties to attract younger people to the profession, the aim of the Network is to foster connections between the "older" and the "younger" surveyors.



FIG International Federation of Surveyors
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FIG Commission 4 Looking Forward

- **Maximizing stakeholder relationships (MOUs):**
 - **FIG-International Hydrographic Organisation**
 - **FIG-International Federation of Hydrographic Societies**
 - **FIG-World Bank**
- **Seek to develop other relevant relationships**



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FIG Commission 4 Looking Forward

- **FIG Commission 4 shall continue to represent Hydrography and is planning participation in Abuja at the FIG Working Week in 2013.**
- **The further promotion of the work of FIG, IHO and Hydrography shall be continued through articles, presentations and papers.**




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