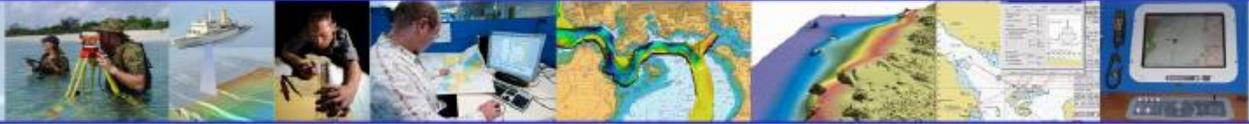




INTERNATIONAL HYDROGRAPHIC BULLETIN



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July - December 2012



REGIONAL HYDROGRAPHIC COMMISSIONS

11TH CONFERENCE OF THE EAST ASIA HYDROGRAPHIC COMMISSION Chiang Mai, Thailand, 4-6 September

The 11th Conference of the East Asia Hydrographic Commission was held in Chiang Mai, Thailand, from 4-6 September 2012. All Member States of the Commission: China, Democratic People's Republic of Korea, Japan, Malaysia, Philippines, Indonesia, Republic of Korea, Thailand and Singapore and the following observer States: UK, USA and Vietnam attended the meeting. In addition, representatives of the South West Pacific Hydrographic Commission, the IC-ENC RENC, GEBCO and IALA attended as invited observers. Assistant Director Michel Huet represented the IHB as an observer, due to the unavailability of any members of the Directing Committee who were taking up office during the same week as the Conference. In total, 46 delegates attended the Conference.



*The next meeting of the Commission will take place in Manila, Philippines in 2015.
An EAHC coordination meeting will be held in Pusan, Republic of Korea in January 2013.*

The Conference was opened by the Chairman, Vice Admiral Nirut Hongprasith (Thailand). Assistant Director Huet provided a briefing on current IHO issues and the work of the IHB; the Chairman of the EAHC reported on EAHC activities and achievements over the past three years, Member States reported on their activities, and the Chair of the EAHC ENC Task Group reported on achievements since the last Conference. The final sessions of the meeting included presentations from GEBCO, IALA and technical presentations from Malaysia and Thailand.

The Conference discussed a wide range of regional topics including developing clarification on cartographic boundaries for ENC production, ENC licensing of the South China Sea ENCs, the establishment of a Regional Training and Development Centre, as part of the EAHC capacity building programme, the setting-up of an East Asia Regional Coordinating Centre for ENCs, a proposed Regional Marine Environmental ENC, and changes to the EAHC organizational structure. No decisions were taken on these topics as it was agreed that further discussion and consideration would be required. This would take place at the next EAHC coordination meeting due to be held in Pusan, Republic of Korea, in January 2013.

The meeting was closed by Commodore Romeo I. HO (Philippines), who assumed the chairmanship of the Commission at the end of the meeting and took custody of the flag. First Admiral Zaaïm Hasan (Malaysia) was elected as the vice-chairman.

The next meeting of the Commission will take place in Manila, Philippines in 2015.



SOUTHERN AFRICA AND ISLANDS HYDROGRAPHIC COMMISSION

Wolmar, Flic en Flac, Mauritius, 18-19 September

The 9th meeting of the Southern Africa and Islands Hydrographic Commission (SAIHC) was hosted in Mauritius by the Ministry of Housing and Lands on 18 and 19 September at Wolmar, Flic en Flac. Flic en Flac is a seaside village on the western part of the island of Mauritius that enables a good view in the distance of the many merchant vessels passing by the Mauritius coast en route to and from the Middle East.

The meeting was attended by nearly all the members and associate members of the Commission - only Seychelles was not represented. In addition to the delegations of Angola, Comoros, France, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Norway, Portugal, Namibia, South Africa, Tanzania and UK, observers from the United States, IALA, the Western Indian Ocean Marine Highway Development and Coastal and Marine Pollution Prevention Project, together with several hydrographic industry representatives took part in the meeting. The IHO secretariat (IHB) was represented by IHO President Robert Ward and Assistant Director Anthony Pharaoh.

The meeting was opened by the Honourable Dr. Abu Twalib Kasenally, GOSK, FRCS Ed, Mauritius Minister for Lands and Housing. Captain Abri Kampfer, Hydrographer of South Africa, chaired the meeting assisted by the Deputy Chair of SAIHC, Mr Abdool Oozeer, Senior Chief Executive of the Mauritius Department of Lands and Housing.



Mauritius Minister for Lands and Housing opens the 9th meeting of the SAIHC



The Chair and Vice Chair lead the discussions

The meeting reviewed hydrographic progress in the region, both in terms of chart and ENC coverage and capacity building. As well as national reports on progress and notable developments in the past year, the agenda included Maritime Spatial Data Infrastructures, GEBCO and contributions to ocean bathymetry in the region, and the West Indian Ocean Marine highway Project. The industry observers provided information on data acquisition using LIDAR, hydrographic databases, remotely operated vehicles for surveying and higher-level hydrographic education through distance learning. More details of the meeting are available in the records of the meeting posted on the IHO website at: www.iho.int → *committees & WGs* → *RHCs*.

The opportunity was taken to convene the Regional International Chart Coordination Working Group. The Working Group reviewed the INT chart scheme for the region and progressed work on the allocation of INT chart production responsibilities.





The Regional International Chart Coordination Working Group

At the end of the 9th meeting of SAIHC, Captain Kampfer and Mr Oozeer were re-elected as Chair and Vice Chair respectively. It was also agreed that the 10th meeting of SAIHC would take place in Lisbon, Portugal on 18 and 19 September 2013. Mauritius offered to host the 11th meeting of SAIHC in 2014 on a date to be determined at the next meeting.

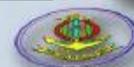
17TH CONFERENCE OF THE BALTIC SEA HYDROGRAPHIC COMMISSION (BSHC) Helsinki, Finland, 18-20 September

The 17th BSHC Conference was held in Helsinki, Finland, on 18-20 September, under the Chairmanship of Mr. Patrik WIBERG (Sweden). All full members of the Commission (Denmark, Estonia, Finland, Germany, Latvia, Poland, Sweden and Russian Federation) attended; the UK also attended as an Observer. The IHB was represented by Director Mustafa IPTES. The Finnish hosts provided an excellent venue and support for the conference.

A reception was held onboard the Icebreaker SISU which was the venue for the 1st BSHC Conference 29 years ago (24 May 1983) and it therefore brought back great memories for many of the participants.



Icebreaker SISU, Helsinki, Finland, 18 September 2012



The BSHC Conference was opened by the Chair, Mr. Patrik WIBERG, on 19 September 2012. The Conference discussed a wide range of regional topics including developments in each of the Member States, the latest status of hydrographic surveying and nautical charting, ENC production and regional coordination and BSHC cooperative projects with other organizations. Also, the BSHC Working Group for Monitoring the Implementation of the Harmonized Re-survey Scheme (MWG) meeting was held immediately before the 17th BSHC Conference on 18 September 2012. The MWG reviewed the status of implementing the re-survey scheme and developing the re-survey database, and the status of progress of the MWG Work Programme.

At the end of the conference, Mr. Jukka VARONEN (Finland) was elected as the new Chair and Mr. Taivo KIVIMAE (Estonia) as Vice-Chair of the BSHC. It was agreed that the next meeting of the BSHC would take place in Estonia, on 16-18 September 2013.



The 17th Conference of the BSHC, Helsinki, Finland, on 18-20 September

Further details and the papers for the meeting are available on the IHO website (http://www.iho.int/mtg_docs/rhc/BSHC/BSHC17/BSHC17.htm)

12TH MEETING OF THE HYDROGRAPHIC COMMISSION ON ANTARCTICA (HCA) Montevideo, Uruguay, 10-12 October

The *Servicio de Oceanografía, Hidrografía y Meteorología de la Armada* (SOHMA) of Uruguay hosted the 12th Meeting of the IHO Hydrographic Commission on Antarctica (HCA) in Montevideo from 10-12 October. HCA comprises 23 Member States that are also signatory nations to the Antarctic Treaty. The HCA seeks to improve the quality, coverage and availability of nautical charting and other hydrographic information and services covering the region. The meeting was chaired by IHO President Robert WARD. IHB Assistant Director Michel HUET attended as HCA Secretary.

President WARD and Captain Gustavo MUSSO, Director of SOHMA, welcomed the participants representing ten IHO Member States (Australia, Brazil, Chile, Ecuador, New Zealand, Peru, Spain, United Kingdom, United States and Uruguay), two observer organizations (the Council of Managers of National Antarctic Programs (COMNAP) and the International Association of Antarctic Tour Operators (IAATO)) and one expert contributor from Fugro-Pelagos.





Participants at the 12th HCA Meeting

The Commission reviewed progress since the previous meeting and received reports from COMNAP and IAATO, as well as from the IHO Member States in the Commission.

Discussion at the meeting centred on the need to increase surveying activity in the region noting that the waters surrounding Antarctica are over 95% unsurveyed. To this end, better coordination of surveys is required as well as the introduction of programmes using *ships of opportunity*. Representatives from the United Kingdom Hydrographic Office (UKHO) reported that the UKHO had successfully conducted trials using cruise ships fitted with relatively inexpensive equipment that automatically records depth soundings during voyages. Plans are now underway to extend this programme and to find ways to ensure that the data from the ships is quickly reflected in charts available to mariners.

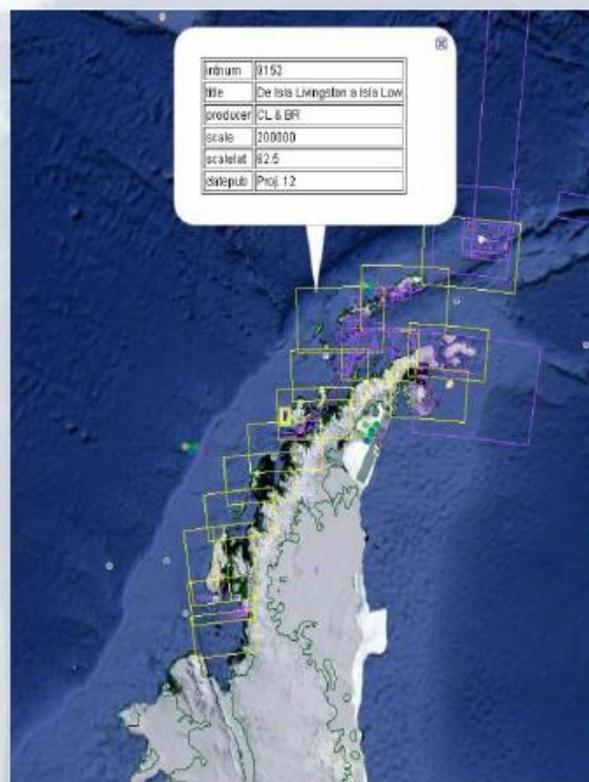
The meeting agreed that continuing the campaign to raise awareness at the ATCM was important. It was also agreed that establishing a liaison protocol with COMNAP would be beneficial, since COMNAP is an implementing body of the ATCM. In this way, the HCA and IHO could act as the competent authority to ATCM for hydrography and nautical charting. This would then be a similar arrangement to the agreement already in place between the IHO and the UN and the IMO.

The Commission decided to task the Hydrography Priorities Working Group (HPWG), chaired by the UK, with the coordination of the INT paper chart scheme and ENC scheming. The HPWG was tasked to develop a schema for ENC production at the larger scales and for a maritime shipping route scheme for the South Orkney Islands. Inclusion of two new INT charts in the scheme, in the Antarctic Peninsula, was also agreed following a proposal by UK.

An Antarctic GIS database, now under development by the IHO Secretariat in Monaco, was demonstrated. It was agreed that information from HCA members on their planned surveys in Antarctic waters should be included in this database, together with details of existing surveys, and planned and completed chart coverage.

Two working groups were tasked to work intersessionally; one to develop a set of guidelines for Ships of Opportunity collecting hydrographic data and the other to coordinate surveys planned for the forthcoming summer season (2013-14).

The 13th meeting of the HCA will be hosted by the Spanish *Instituto Hidrográfico de la Marina* in Cadiz, Spain, from 5-7 December 2013.



Antarctic GIS database - INT charts and surveys superimposed on GoogleEarth



12TH CONFERENCE OF THE EASTERN ATLANTIC HYDROGRAPHIC COMMISSION (EAthC)

IHPT, Lisbon, Portugal, 14-16 November



The 12th Conference of the Eastern Atlantic Hydrographic Commission (EAthC) was hosted and chaired by the Hydrographic Institute of the Portuguese Navy (IHPT) from 14 to 16 November 2012 in Lisbon. There were 37 delegates at the Conference which included 6 IHO Member States of the Region, 5 Associate Member States (out of 9), 3 Observer States (out of 10) and one NGO (IALA), as well as 2 industry partners.

The IHB Directing Committee was represented by Gilles BESSERO who provided a briefing on current IHO issues and the work of the IHB.

The Chair reported on EAthC activities and achievements since the preceding Conference in 2010, and the States represented reported on their activities. The Conference reviewed feedback from the IRCC and the WEND-WG and input from the IALA World Wide Academy, as well as the progress in implementing the INT Chart and ENC schemes and updating of the C-55, the provision of Maritime Safety Information and the cooperation between IHO and the European Commission. Capacity Building issues were given particular attention and a number of actions were agreed to give a new impetus to the regional dynamics. Simultaneous interpretation in the two official languages of the IHO greatly facilitated lively exchanges.

Additionally, the Commission benefited from a visit on board survey ships of the Portuguese Navy, a tour of the IHPT and some industry presentations.



France took over the chairmanship at the end of the Conference. The next Conference will take place in September 2014 at a venue to be decided later.



13TH MEETING OF THE MESO AMERICAN AND CARIBBEAN SEA HYDROGRAPHIC COMMISSION (MACHC)

Antigua, Guatemala, 19-23 November

The 13th Meeting of the Meso American and Caribbean Sea Hydrographic Commission (MACHC) was held in Antigua (Guatemala) from 19 to 23 November 2012 with participants from 15 Member States, 7 Associate Members, 3 observer countries, 7 observer organizations, and 15 representatives from industry.

The meeting continued the development of the Maritime Economic Infrastructure Programme (MEIP) for the establishment of a MSDI in the region. The INT Chart scheme was updated and improved. The Commission approved the unification of the INT Chart and the ENC Committees and created the MACHC Integrated Charting Committee (MICC).

Venezuela established bilateral agreements with Colombia, France and The Netherlands to solve 16 out of 24 overlaps in the region. The solution for gaps is also worth a mention as 16 out of 21 were resolved. The Committee agreed to a number of actions to progress solutions for gaps and overlaps.

The IBCCA (International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico) received support and was reinvigorated. The Commission also discussed a new project in the Gulf of Fonseca, following the work done in the Gulf of Honduras.

Mr. Michael Jones, President of the Maritime Alliance led a panel on the "Blue Economy" and the possibilities of Maritime Funding in the region. The Commission agreed a number of resolutions regarding the "Blue Economy". Numerous presentations covered new developments: the new Digital Coast Pilot (USA), the Cruising Guide to leisure boats (Colombia), Crowd Source and Satellite Derived Bathymetry, the potential for offshore energy investments, amongst others.



**XIII CONFERENCIA ORDINARIA DE LA COMISIÓN
HIDROGRÁFICA MESOAMERICANA Y DEL MAR CARIBE MACHC**



COMMITTEES / SUB-COMMITTEES / COMMISSIONS

19TH MEETING OF THE INTERNATIONAL STEERING COMMITTEE ON THE GLOBAL MAPPING PROJECT (ISCGM) New York, USA, 12 August

The 19th Meeting of the International Steering Committee on the Global Mapping Project took place in New York on 12 August. Director Robert Ward represented the IHO as an Observer.

The fundamental concept of Global Map is to develop global scale geographic information through international cooperation and is a practical outcome of discussions that took place at the United Nations Conference on Environment and Development held in 1992. Japan, who instigated the Project, funds a technical staff that manages and develops the project under the direction of the International Steering Committee comprising participating States. Most of the international organisations, including IHO, concerned with global mapping and geospatial information, participate as liaison representatives.

Global Map now provides thematic data sets that cover the whole land area on earth at 1km resolution. Each thematic data set is released to the public in a digital format for easy handling by computer and its content is equivalent to conventional maps at scales of 1:1,000,000. These geographic data sets comprise the following thematic layers: elevation, vegetation, land-cover, land-use, transportation drainage systems, boundaries and population centres. Current plans are that the data will be updated at approximately five-yearly intervals to enable the monitoring of changes occurring in the global environment. Director Ward drew attention to the availability of bathymetric data contained in the IHO Data Centre for Digital Bathymetry and through the GEBCO programme that could be used in Global Map.



Director Ward describes the global bathymetric data that is available through the IHO

By November 2000, global data sets produced by converting existing geographic information to meet Global Map Specifications (Global Map version 0) and country specific data sets (Global Map version 1) for nine countries (Japan, Thailand, Laos, Nepal, Sri Lanka, Philippines, Colombia, Australia and Bangladesh) developed by the respective national mapping organisation were completed. The Global Map data sets have been distributed to the public through the internet since November 2000.

As well as reviewing progress on the further development of Global Map and a second generation data format, the meeting was informed that global mapping was specifically acknowledged as an enabling function at the recent Rio+20 UN Conference on Sustainable Development.

More information on Global Map can be obtained from: <http://www.iscgm.org/cgi-bin/fswiki/wiki.cgi>



WORLD-WIDE NAVIGATIONAL WARNING SERVICE SUB-COMMITTEE (WWNWS)

Tokyo, Japan, 24-28 September

The 4th meeting of the WWNWS Sub-Committee was held at the offices of the Hydrographic and Oceanographic Department, Japan Coast Guard in Tokyo, from 24–28 September under the chairmanship of Mr Peter Doherty of the United States. The meeting was opened by Mr Shin Tani, Chief Hydrographer of Japan and Director General of the Hydrographic and Oceanographic Department of the Japan Coast Guard. The meeting was attended by 29 delegates from 18 IHO Member States, the International Hydrographic Bureau (IHB), the World Meteorological Organization, and Inmarsat Global Ltd. The delegates included representatives of 12 NAVAREA Coordinators, 1 Sub-Area Coordinator and 5 National Coordinators.



WWNWS4 Meeting at JHOD Offices, Tokyo, 24-28 September 2012

Following the International Maritime Organization's 16th meeting of the Sub-Committee on Radiocommunications and Search and Rescue, and the subsequent work at the 10th Document Review Working Group meeting on the IMO Assembly Technical Resolutions A.705(17) and A.706(17), WWNWS4 continued its focus on the holistic review of all the related documentation to ensure 100% consistency of guidance and terminology used in all documents, including example standard message texts for the various Warning Message categories. Further work on this will be undertaken at the 11th meeting of the Document Review WG which will be held at IMO Headquarters in London at the end of January 2013. The work will then be finalised at the next meeting of the WWNWS Sub-Committee prior to submission to Member States, the World Meteorological Organization and the International Maritime Organization. All draft documents will be available from the WWNWS page of the IHO web site and Member States are invited to submit any comments to the Chairman and the IHB.

The Sub-Committee received Maritime Safety Information self assessments from 19 NAVAREAs, including a presentation from NAVAREA XI on development work on 'Navigational Warning Maps on the Web'. Reports were also received from the Chairman of the IMO NAVTEX Panel, the IMO SafetyNET Panel and the World Meteorological Organization, all of whom attended the meeting. Inmarsat Global Ltd gave their report, which included a comprehensive brief on Inmarsat C and Fleet Broadband services; this included suggested future message code categories, which will be of significance in the e-Navigation environment of the future.

The meeting received updated information on the delivery of the Maritime Safety Information training courses and the continuing requirement to review the training material to ensure consistency with the amended supporting manuals and documentation. Since the last meeting no courses had been delivered; however 3 courses for various Regional Hydrographic Commissions are planned for 2013.

Mr Michael White provided a brief on the work of the UK Admiralty Warning Navigation Information Service, which highlighted the similarities and parallels of this military organization to the work of NAVAREA, Sub-Area and National Coordinators. Visits were conducted to the coordination centre of NAVAREA XI, the Hydrographic and Oceanographic Department, Japan Coast Guard museum and survey vessel SHOYO, a demonstration of the maritime high-speed communications system was also given.

The full report of the meeting (when finalized) and all meeting documents are available from the IHO web site at: http://www.iho.int/mtg_docs/com_wg/CPRNW/WWNWS4/WWNWS4.htm.



WWNWS4 members visit to Survey Vessel SHOYO

**4TH MEETING OF THE IHO HYDROGRAPHIC SERVICES
AND STANDARDS COMMITTEE (HSSC)
5TH IHO STAKEHOLDERS' FORUM
Taunton, United Kingdom, 25-28 September**

The fourth meeting of the Hydrographic Services and Standards Committee (HSSC) took place in Taunton, United Kingdom, hosted by the UK Hydrographic Office, from 25 to 28 September 2012. The meeting, chaired by Dr Mathias Jonas (Germany), was attended by 60 delegates representing 24 Member States and the IHB and 9 delegates representing 6 organizations accredited as observers. They were joined by 46 representatives from 39 different entities for the IHO Stakeholders' Forum on "Realizing the full potential of ECDIS, ENC's and digital hydrographic data" which was held on the afternoon of the 26th of September and the morning of the 27th of September.



HSSC4 participants

The Committee reviewed the activities, proposals, and work plans of its working groups and the decisions of other bodies and organizations affecting its work, with particular attention being paid to critical areas. The Committee endorsed two draft new editions of IHO publications (draft edition 3.1.0 of S-57 - Appendix B1 - Annex A - Use of the Object Catalogue for ENC, and draft edition 1.1.0 of S-99 - Operational Procedures for the Organization and Management of the S-100 Geospatial Information Registry) and invited the IHB to circulate them to Member States for

approval. The development of the S-100 Universal Hydrographic Data Model and associated Product Specifications was discussed and the Committee tasked the working groups concerned to prepare a master plan document for framing this development. Besides the S-101 ENC product specification nearing completion, the Committee established a new working group for developing a surface current product specification and focused the future work of the Standardization of Nautical Publications Working Group on developing S-100 based data models and product contents. The Committee acted on a number of other matters dealing notably with the quality indicator of charts (CATZOC - Category of zones of confidence in data), the training of mariners on quality aspects of the practical use of ENCs, e-navigation, marine spatial data infrastructure, tidal and water levels issues, and the hydrographic dictionary.



New HSSC Chairman (Mathias Jonas, BSH, Germany) and Secretary (Gilles Bessero, IHB)

The theme of the IHO Stakeholders' Forum was dealt with in some twenty presentations from the IHB, IHO Member States and industry addressing a variety of issues such as the global status of surveys, ENC coverage issues, GIS and cloud-based services, and S-100 related developments. A poll on "What the IHO should be doing but is not?" identified some forty thought-provoking ideas for further consideration by the IHO.

The Committee elected Dr Mathias Jonas (Germany) as Chair, and Mr Mike Prince (Australia) as Vice-Chair for the next five years. The next HSSC meeting will be held from 4 to 8 November 2013, in Monaco unless an alternative venue is proposed by a Member State before 1st February 2013.

Further information at http://www.iho.int/mtg_docs/com_wg/HSSC/HSSC4/HSSC4Docs.htm

GEBCO MEETINGS

IHB, Monaco, 1 – 5 October

A series of GEBCO meetings were held at the IHB, Monaco from 1 – 5 October 2012:

- 1 & 4 October: Joint Technical Sub-Committee on Ocean Mapping (TSCOM) and interim Sub-Committee on Regional Undersea Mapping (iSCRUM) meeting;
- 1 October: GEBCO-Nippon Foundation Programme Management meeting and task group meetings;
- 2 October: GEBCO Science Day; and
- 5 October: GEBCO Guiding Committee (GGC)

TSCOM and iSCRUM

The GEBCO Technical Sub-Committee on Ocean Mapping (TSCOM) and the interim Sub-Committee on Regional Undersea Mapping (iSCRUM) held joint meetings on 1 and 4 October 2012. The meetings were chaired by Dr. Martin Jakobsson (IOC- Sweden), and included reports and presentations on the status of hydrographic surveying and nautical charting in Antarctica and mapping activities of the International Bathymetric Charts (IBC) projects. Reports on the following IBC regions were provided: the East Pacific (IBCEP), the Southern Ocean (IBCSO), the Arctic Ocean (IBCAO) and the Caribbean Sea and the Gulf of Mexico (IBCCA). Breakout groups were convened to discuss issues concerning: the Antarctic and Arctic mapping activities, and a new Indian Ocean mapping initiative. Other important topics discussed included the GEBCO World Map, GEBCO Cookbook, Gridding techniques, Metadata and the creation of a GEBCO Common Data Store.

Science Day

For the seventh consecutive year, GEBCO organized a "Bathymetric Science Day" which took place on 2 October in the Salle du Ponant, Princess Grace Theatre, and was opened by HSH Prince Albert II of Monaco. This year the Science Day coincided with the 7th ABLOS Conference with members of both communities attending each other's sessions. The Science Day featured presentations on: the development of user interface for multibeam data processing in Linux; multibeam backscatter-driven investigations reveal previously unknown cold seeps in the south-eastern Tyrrhenian Sea; coordinated data stewardship and efforts to optimize data quality; FRAM 2012 – Norwegians return to the high Arctic with the research hovercraft R/H SABVABAA; global oceanography and bathymetry explorer

software; where are the bathymetric hot-spots? and inventory and qualification of bathymetric data in the NE Atlantic. These presentations can be downloaded from the GEBCO web site at:

http://www.gebco.net/about_us/meetings_and_minutes/gebco_science_day_2011/

The TSCOM, iSCRUM and Science Day meetings were well attended by members from the IOC and IHO, and Assistant Directors David Wyatt and Tony Pharaoh represented the International Hydrographic Bureau.

GCC

All IHO members of the Guiding Committee were present. The chair, Dr Robin Falconer (IOC - New Zealand) highlighted the impact of the revised ToRs, which meant that the majority of members would be completing their 5-year terms in 2013; Ingénieur Général Etienne Cailliau (IHO-France) announced his intention to step down early in 2013, well before the next GCC meeting in October. The GCC received reports from its Sub-Committees and endorsed the work which they had undertaken. The GCC also received reports from key personnel performing functions on behalf of GEBCO and from the IHB on IHO activities since the previous meeting. A report from the IOC was delivered by the IHB.

The GCC discussed at some length the issue of the GEBCO World Map; led by Dr Martin Jakobsson, the meeting discussed an IHB draft proposal to resolve the major issue halting publication. The meeting endorsed the IHB proposal, which would allow a blank version of the GEBCO World Map to be published, whilst allowing either GEBCO or external organizations to add additional overlays to the base map with appropriate details of information source and controlling authority. Mr Robert Andersen briefed the meeting on the status regarding the GEBCO globes and the ongoing development work with the Chinese company DongXin Globe.

The GCC reviewed its work programme for the period 2013 – 2017 which had been approved by the Inter-Regional Coordination Committee (IRCC) and the XVIIIth IHC. The meeting received confirmation that the required approvals had been given by the IHO and the IOC for the publication of “The GEBCO Cookbook” (B-11). This publication will shortly be available on the GEBCO, IHO and IOC websites.



GEBCO Guiding Committee Members



19TH MEETING OF THE ADVISORY BOARD ON THE TECHNICAL ASPECTS OF THE LAW OF THE SEA (ABLOS) IHB, Monaco, 1 – 6 October

The 19th meeting of ABLOS was held at the IHB in Monaco on 1 and 6 October 2012.

The Chairman welcomed Mr John Brown (United Kingdom) who became an IHO member of ABLOS on 5 October 2012 as successor to Mr Chris Carleton (United Kingdom) who stepped down after long service to ABLOS stretching back to 1986. Additionally, members from Canada, Denmark, Indonesia and Japan, the Secretary and Observers from Bangladesh, Brazil and Japan were present.

The meeting received a report from the Chairman of the Technical Aspects on the Law of the Sea (TALOS) Manual (C-51) WG, who was stepping down after having completed the draft ready for members' comments and final review before submission to the 5th Hydrographic Services and Standards Committee (HSSC) and Member States for approval. A work plan was agreed which aimed to complete the final review process ready for submission to HSSC 5 by mid-February and adoption by IHO and IAG in time for publication at the 20th ABLOS Business Meeting in 2013.

Much of the meeting was devoted to reviewing the feedback from the 7th ABLOS Conference in 2012 and preparing for the next Conference, which will be postponed until 2015 due to the 5th Extraordinary International Hydrographic Conference planned in October 2014. The Conference will again be held in Monaco in October. An Organising Committee was established to oversee the preparations with further information to be announced by IHB CL and on the ABLOS page of the IHO web site.

The meeting also recognised the need to raise the profile of ABLOS amongst IHO Members, and to this end it was agreed there should be greater participation in HSSC meetings and ABLOS attendance at the quinquennial International Hydrographic Conferences and intermediate Extraordinary International Hydrographic Conferences.

Professor Sunil Bisnath (IAG) assumed the role of Chair on completion of the 7th ABLOS Conference and chaired the second part of the Business Meeting. Mr John Brown (IHO) was unanimously elected as Vice-Chair.

It is hoped to hold the 20th ABLOS Business Meeting in Muscat, Oman, in October 2013; however confirmation has yet to be received.



ABLOS BM 19 Members



GEBCO SUB-COMMITTEE ON UNDERSEA FEATURE NAMES (SCUFN)

Wellington, New Zealand, 23-27 October

The 25th SCUFN meeting was jointly hosted by Land Information New Zealand (LINZ) and GNS Science of New Zealand. The meeting was held in the offices of LINZ in Wellington under the chairmanship of Dr. Hans Werner Schenke from the *Alfred-Wegener-Institut für Polar und Meeresforschung* (AWI – Germany). There were 23 participants, including 9 of the 12 SCUFN members (from Argentina, Brazil, Chile, China, Germany, Japan, Rep. of Korea, New Zealand, Russia and USA). The meeting welcomed LCdr. Felipe Barrios (Chile – IHO side) as the new member replacing Cdr. Harvinder Avtar (India) who had resigned from the Sub-Committee. Assistant Director Michel Huet attended for the IHB and as the Secretary of SCUFN.

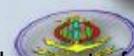


The main issues discussed at the meeting are summarized below:

- The meeting examined some 170 names or name proposals. These included the following proposals:
 - 10 from the *Servicio de Hidrografía Naval* (SHN), Argentina, in the SW Atlantic and the Southern Ocean;
 - 1 from the University of Texas, USA, and the British Antarctic Survey (BAS), in the SW Atlantic;
 - 3 from the *Istituto Nazionale di Oceanografia e di Geofisica Sperimentale* (OGS), Italy, in the Southern Ocean;
 - 4 from the Directorate of Hydrography and Navigation (DHN) and the company Petrobras S.A., Brazil, in the SW Atlantic;
 - 14 from the Japan Committee on Undersea Feature Names (JCUFN) and Kumamoto University, Japan, in the NW Pacific;
 - 15 from the State Oceanic Administration of China, in the Pacific;
 - 6 from the State Scientific Centre of Russia, in the North Pacific.
 - 4 from the Korea Committee on Geographical Names (KCGN), in the North Pacific;
 - 1 from GNS Science of New Zealand in the SW Pacific;
 - 78 from the Undersea Names Committee of the New Zealand Geographic Board (NZGB), in the SW Pacific;
 - 6 from the GEBCO Gazetteer Reserve Section.

In total, the Sub-Committee recommended the acceptance of 124 new undersea feature names for inclusion in the GEBCO Gazetteer.

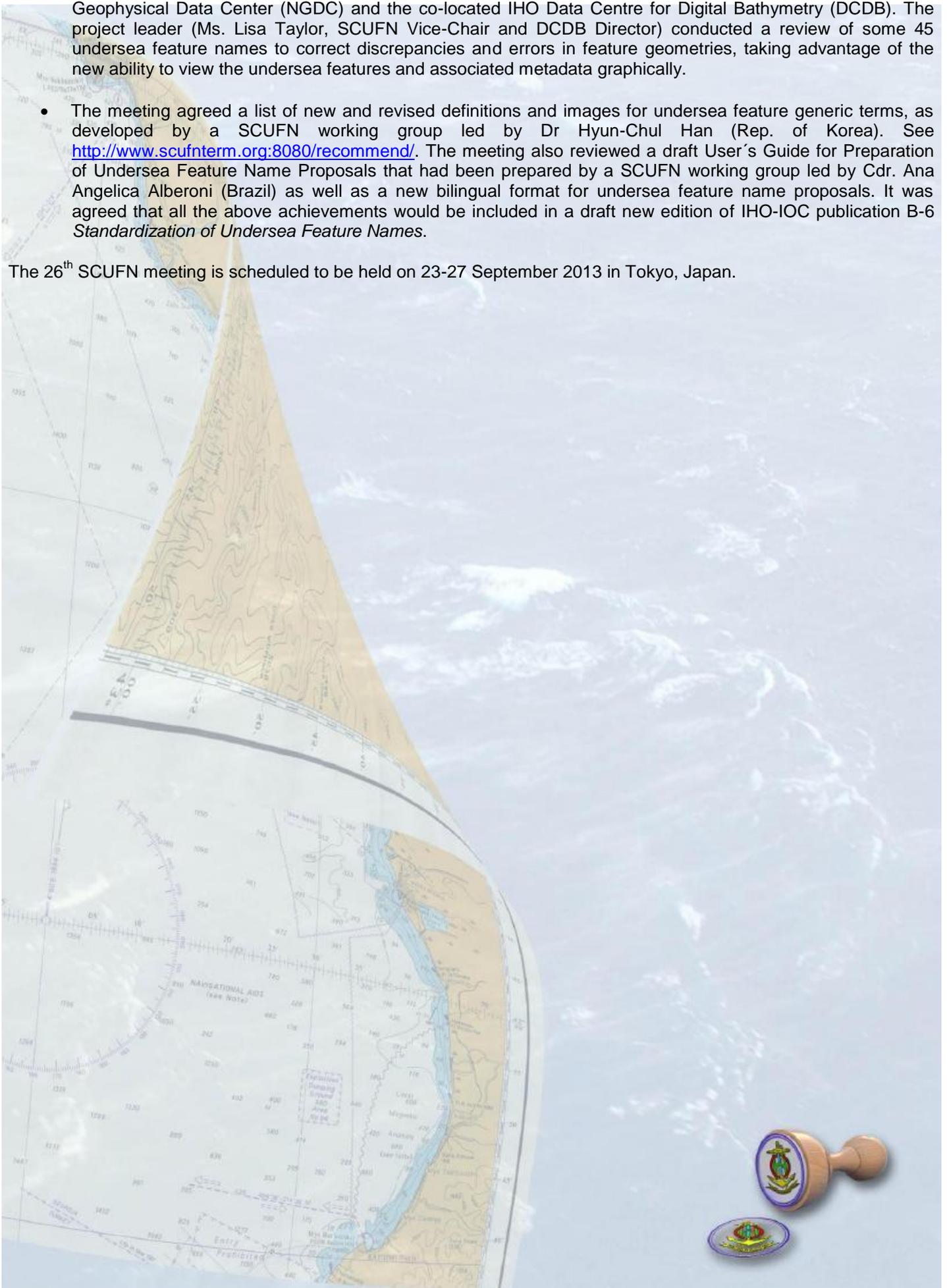
- The meeting noted with satisfaction the significant progress made in the development of a web-based map interface and on-line database for the GEBCO Gazetteer, thanks to the efforts and support of the US National



Geophysical Data Center (NGDC) and the co-located IHO Data Centre for Digital Bathymetry (DCDB). The project leader (Ms. Lisa Taylor, SCUFN Vice-Chair and DCDB Director) conducted a review of some 45 undersea feature names to correct discrepancies and errors in feature geometries, taking advantage of the new ability to view the undersea features and associated metadata graphically.

- The meeting agreed a list of new and revised definitions and images for undersea feature generic terms, as developed by a SCUFN working group led by Dr Hyun-Chul Han (Rep. of Korea). See <http://www.scufnterm.org:8080/recommend/>. The meeting also reviewed a draft User's Guide for Preparation of Undersea Feature Name Proposals that had been prepared by a SCUFN working group led by Cdr. Ana Angelica Alberoni (Brazil) as well as a new bilingual format for undersea feature name proposals. It was agreed that all the above achievements would be included in a draft new edition of IHO-IOC publication B-6 *Standardization of Undersea Feature Names*.

The 26th SCUFN meeting is scheduled to be held on 23-27 September 2013 in Tokyo, Japan.



WORKING GROUPS

6TH MEETING OF THE DATA QUALITY WORKING GROUP (DQWG) Silver Spring, USA, 24-26 July

The 6th meeting of the IHO Data Quality Working Group (DQWG) was held in Silver Spring, Maryland, USA from 24 to 26 July 2012. The meeting was hosted by the US Office of Coast Survey and chaired by Mr. Chris Howlett, of the UKHO. The DQWG is a subsidiary of the Hydrographic Services and Standards Committee (HSSC) and its objective is to develop appropriate methods of classifying and depicting the quality of digital hydrographic data.

Fifteen delegates attended, representing the Hydrographic Offices of Canada, Netherlands, Sweden, Turkey, United Kingdom and the USA, as well as industry and academia. Assistant Director Michel Huet attended for the IHB.



In partnership with the DQWG, the University of Southern Mississippi (USM) had been conducting a study into the visualisation of Data Quality within ENC's. The current status was presented in the form of a twostage approach proposal, i.e. first, to visualise individual data quality indicators (e.g. colour banding based upon horizontal uncertainty) and second, to look at how these individual visualisations can be combined to provide a composite indicator. Both visualisations should be presented to mariners so the best method can be determined.

Agreement was reached on a proposal from Japan to degrade the value of the ENC qualifying attribute CATZOC, following an extreme event such as a tsunami. Following a review of the IMO Model ECDIS Course, the DQWG felt that the emphasis on data quality was adequate in this high level document, but that another, more detailed, document would be useful to provide guidance to maritime colleges on how to build a course on ENC data quality based upon the IMO framework.

Elections were conducted to select a DQWG Chair and Vice-Chair. As a result:

- Mr. Chris Howlett (United Kingdom) was confirmed as Chair; and
- Mr. Leendert Dorst (Netherlands) was elected as Vice Chair;

Mr. Eivind MONG (Jeppesen) will continue as Secretary.

The next DQWG meeting is scheduled to be held on 16-18 July 2013 in Fredericton, New Brunswick, Canada.



**2ND MEETING OF THE IHO WORLDWIDE ENC DATABASE
WORKING GROUP (WEND-WG)
London, UK, 21-22 September**



The 2nd meeting of the WEND Working Group was held at the Army and Navy Club in London, UK, on 21-22 September 2012, under the Chairmanship of Captain Jamie MCMICHAEL-PHILLIPS (UK). Representatives from RHCs (BSHC, NHC, USCHC, MBSHC, SWAtHC and EAHC), Member States (13), RENCs (IC-ENC, PRIMAR, AusRENC) and two observers, making a total of 29 participants, attended the meeting. The IHB was represented by Director Mustafa IPTES and Assistant Director Alberto COSTA NEVES. The British hosts provided an excellent venue and support for the meeting.

The meeting discussed the main challenges to achieve the objectives of this Working Group. The agenda included discussion on ENC quality, coverage, gap and overlap analysis, distribution, updating and licensing. The Working Group agreed on actions to improve the effectiveness of the WEND principles. The participation of the Regional ENC Coordinating Centres was considered key to further improve global coverage while reducing overlaps.

There was lengthy discussion on the outcomes of the IHC18, IRCC4 and HSSC4 affecting the Working Group, in particular on the improvements of the guidelines to achieve the WEND Principles, the establishment of Performance Indicators and the participation of the Regional Hydrographic Commissions. Further topics included: service provisions and publication withdrawals, the development of a global ENC scheme and the improvements to the Terms of Reference to be submitted to IRCC.

**3RD IHO WORKSHOP OF TECHNICAL EXPERTS
ON RESOLVING OPERATING ANOMALIES IN ECDIS
IMO, London, United Kingdom, 15-16 October**

The 3rd IHO Workshop of Technical Experts on resolving Operating Anomalies in ECDIS was held at the IMO Headquarters in London on 15 and 16 October 2012 under the chairmanship of Robert Ward. Director Gilles Bessero attended part of the meeting. The workshop was attended by 48 technical and operational experts representing the key stakeholder groups - including those from the IMO Secretariat, IMO and IHO Member States, Non-Governmental International Organizations, data service providers, ECDIS manufacturers, type-testing authorities, and seafarers' organizations.

The workshop considered the summary of mariners' feedback from the IHO ECDIS data presentation and performance check campaign, discussed progress on implementing the outcomes of recent IMO committee and sub-committee meetings and was provided with an update on progress with the maintenance and improvement of the relevant IHO standards.



Useful feedback was provided by the participants on issues such as display requirements, alarm management, and testing procedures. This feedback will benefit not only the maintenance of existing IHO standards related to ECDIS but also the development of related standards that will be based on S-100, such as S-101, the next generation ENC product specification. The participants at the workshop provided input for the consideration of IMO Member States in the further development of proposals for consideration by the IMO Sub-Committee on Safety of Navigation (NAV). These inputs related to the consolidation of ECDIS related circulars and the revision of footnotes to SOLAS Regulation V/27.

The meeting reached the conclusion that, whatever the date of installation, all ECDIS should be up to date so as to conform to the latest edition of the relevant IHO Standards reported to the IMO. It was also concluded that it would be useful if there was a check data set that allows a mariner to confirm that an ECDIS is up to date in relation to the applicable IHO standards. Seafarer representatives noted that, at the moment, this is a particularly contentious issue in relation to Port State Control inspections in some States and they would welcome an easy-to-use IHO “proof” of conformance.

An IHO Member State attending the workshop indicated that recent feedback had shown that some mariners have difficulty determining whether their ENCs are up to date because the relevant information is not readily apparent in some ECDIS equipment. The ECDIS manufacturers represented at the meeting encouraged the IHO to provide clearer guidance in terms of what information is required to be presented to the mariner and in what form.

The meeting, which had the widest spread of stakeholder representatives of any similar meeting held so far, provided a very useful forum for the exchange of views and information. It was agreed that the meeting had been informative for all participants and that on-going actions will benefit from the discussions that took place at the meeting. The fact that the workshop had not identified any significant new work items or initiatives to be followed was taken as a sign of continuing progress. Although work remains to be done, there was widespread agreement that ECDIS remains a powerful and valuable tool on the bridge of ships.

On conclusion of the workshop, some participants took the opportunity to join two IHO Working Group events that were held over the remaining part of the week. These were a sub-Group of TSMAD, that is continuing the revision of S-64 - *IHO Test Data Sets for ECDIS*, and a sub-Group of DIPWG that is continuing the revision of S-52 - *Specifications for Chart Content and Display Aspects of ECDIS* and the data presentation aspects of S-101 - *S-100-based ENC Product Specification*. The participation of mariners and ECDIS manufacturers was considered to be both valuable and essential.

STANDARDIZATION OF NAUTICAL PUBLICATIONS WORKING GROUP (SNPWG) FTA Helsinki, Finland (12 – 16 November)

The 15th meeting of the Standardization of Nautical Publications Working Group meeting was hosted by the Finish Transport Agency (FTA) in Helsinki, Finland. The meeting was attended by members from Denmark, Finland, France, Germany, Japan, Korea (Rep of), Spain, Sweden, UK and USA. Industry members from CARIS Jeppesen, NOVACO and Interschalt also participated in the meeting. The IHB was represented by Anthony PHARAOH.



SNPWG 15 Meeting Participants

The meeting was chaired by the SNPWG deputy chair Mr Jens SCHRÖDER FÜRSTENBERG (Germany), as the current chairman Mr David Acland (UK) had stepped down from this position earlier in the year. Mr Jens SCHRÖDER FÜRSTENBERG was elected as the new chairman, and Mr Thomas LOEPER as the new vice chairman. On behalf of the working group, Mr FÜRSTENBERG expressed sincere gratitude for the excellent leadership and guidance that had been provided by Mr Acland during his term as chair.

Work continued with the Marine Product Specification work item. A presentation was provided on the “Bringing Land and Sea Together” (BLAST) work package dealing with “Navigating the North Sea.” This work is based on the S-100 data models developed by the SNPWG. Presentations were also provided on a new Japanese production system for Sailing Directions, and a Product Specification for Radio Signals.

9TH MEETING OF THE CHART STANDARDIZATION AND PAPER CHART WORKING GROUP (CSPCWG) Seoul, Republic of Korea, 13 - 16 November

The 9th meeting of the IHO Chart Standardization and Paper Chart Working Group (CSPCWG) was hosted by the Korean Hydrographic and Oceanographic Administration (KHOA) in Seoul, from 13 to 16 November 2012. CSPCWG provides a core of expertise on the concepts of charting and is mainly tasked to develop and maintain the IHO Chart Specifications, as contained in publication S-4. The twenty-three attendees included representatives from Australia, Brazil, Canada, Denmark, Finland, France, Germany, Japan, Korea (Rep. of), Norway, Spain, Sweden, Turkey, United Kingdom, United States and the IHB, plus an expert contributor from Jeppesen. The meeting was chaired by Dr. Peter JONES (UK).



The meeting participants were welcomed by Mr. Suk-Hyun KIM, Director General of KHOA and the meeting reviewed and discussed a number of proposals relating to chart content / specifications. These included the following topics for which new or amended specifications will be prepared: submarine cables; discontinuities between surveys; maximum draught areas; footbridges; spot heights and topographic contours; sounding selection; convention on upright and sloping text styles; compilation practice; and reference to WGS84.

The comprehensive revision of S-4 Part B, which started in 2004, is now in its last phase and is planned for completion in 2013.

Dr. Peter JONES (UK) and Mr. Jeff WOOTTON (Australia) were re-elected as CSPCWG Chair and Vice-Chair, respectively.

The 10th meeting of CSPCWG has been scheduled to be held in Wellington, New Zealand, in mid-January 2014, whereas Germany has offered to host the 11th meeting in Rostock.



OTHER BODIES

58TH SESSION OF THE IMO SUB-COMMITTEE ON SAFETY OF NAVIGATION London, UK, 2-6 July

The 58th session of the IMO Sub-Committee on Safety of Navigation (NAV58) was held at IMO Headquarters in London from 2-6 July 2012. The IHO was represented by Vice Admiral Maratos - President, Director Ward, and Assistant Directors Huet and Wyatt. Several heads and representatives of hydrographic offices also attended the meeting as part of national delegations.

The IHO delegation mounted a poster display in the delegates refreshment area for the duration of the meeting. The display provided information on the benefits of membership of the IHO. A presentation was also given during one lunch break. This resulted in some non IHO Member States asking for more information and follow-up action.



Assistant Directors Huet and Wyatt discuss the IHO poster display at NAV58

NAV58 approved eight new or amended Traffic Separation Schemes (TSS), seven new or amended Routeing Measures, amendments to two mandatory ship reporting systems and the establishment of two new areas to be avoided; all of which will now be passed to the Maritime Safety Committee (MSC) for adoption at its 91st session in November 2012.

NAV58 continued its work on the development of an implementation plan for e-navigation focussing attention on the report of the intersessional Correspondence Group and numerous documents submitted by Member States. NAV58 noted the progress with regard to the development of the detailed on-board e-navigation architecture and invited IALA, IHO and other relevant organizations to contribute to its further development. NAV58 also noted that a gap analysis had been completed and endorsed a preliminary list of potential e-navigation solutions. NAV58 re-established the e-navigation Correspondence Group and instructed it to review the preliminary list of potential e-navigation solutions and to finalize the Cost Benefit and Risk Analysis. The Correspondence Group was also instructed to further develop a draft Strategy Implementation Plan and to consider the issue of software quality assurance. The Correspondence Group was instructed to make a preliminary report to COMSAR17 in January and STW44 in May and to provide a consolidated report to NAV59 in September 2013.

On the topic of AIS Aids to Navigation (AtoN), NAV58 established a Drafting Group to review the draft policy submitted by the intersessional Correspondence Group on the subject. The DG reported that further liaison was necessary to ensure standards developed by other international organizations (such as, IHO, IEC and IALA) align with the IMO policy that is under development by the Correspondence Group. The Drafting Group also reported that AIS Application Specific Message (ASM) should be further considered in conjunction with developments of AIS AtoN policy.

NAV58 re-established the Correspondence Group on AIS AtoN and instructed it to consider all relevant information and documents and to finalize a revised draft of a policy for AIS AtoN. The Correspondence Group was also to develop symbols for AIS AtoN, taking into account the symbols contained in IMO SN/Circ.243 as well as other relevant guidelines, standards and publications. A report is to be submitted to NAV59.

On the subject of Operating Anomalies Identified within ECDIS, NAV58 recognised the need for continuous monitoring of the implementation of ECDIS and any issues subsequently arising. The work undertaken to date by the IHO was acknowledged. The IHO was thanked and encouraged to continue its engagement and work in helping to resolve outstanding issues. The Sub Committee commended the IHO for the technical workshop that it will hold in October at IMO Headquarters. The Sub-Committee further invited Member Governments and international organizations to submit further comments and proposals for consideration at NAV59.

The Chair and Vice-Chair, Mr Michael SOLLOSI of the United States and Mr Kostiantyn BILLIAR of Ukraine, respectively, were re-elected for 2013.

MARINE ELECTRONIC HIGHWAY DEMONSTRATION PROJECT

Handover of the MEH Computer Facility

Batam, Indonesia, 3 August

The Marine Electronic Highway Demonstration Project (MEHDP) is a practical demonstration of the potential for a digital information network that provides environmental and related information in real time to both mariners transiting the Straits of Malacca and Singapore as well as other agencies and interested parties.

The MEHDP, which has taken nine years to complete, has been managed by the International Maritime Organization (IMO). The IHO, through the secretariat, has been a supporting partner in the Project by providing technical advice and assistance on various hydrographic aspects, including specifications for a hydrographic survey of parts of the Straits of Malacca.

The World Bank Global Environment Facility (GEF) and the International Bank for Reconstruction and Development (IBRD) provided US\$8.3 million of the US\$11 million project costs. US\$2.7 million was provided by the three littoral States - Indonesia, Malaysia and Singapore. The Republic of Korea provided US\$0.85 million - principally for the development and installation of computer technology and the establishment of a control centre in Batam, Indonesia.

The unified data centre can now provide mariners and various shore-side authorities with access in real time to environmental and related information about the Straits of Malacca and Singapore. Currently, access is via the internet but in the longer term it is envisaged that other forms of data transfer will be available.

The Secretary-General of IMO, Mr Koji Sekimizu, formally transferred the ownership and management of the Control Centre to Indonesia in a ceremony attended by representatives of the three littoral States. Director Robert Ward represented the IHO at the ceremony.



The IMO Secretary-General, Mr Koji Sekimizu, provides his congratulatory address before formally handing over the MEH computer facility to Indonesia.



The Secretary-General indicated that the MEH system has the potential to be extended to the shipping route linking Europe and the Middle East with East Asia. Follow-on phases of the Project are planned to incorporate various e-Navigation test-bed capabilities.

2ND SESSION OF THE UN COMMITTEE OF EXPERTS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT (UN-GGIM) New York, USA, 13-15 August

In July 2011, the UN Economic and Social Council (ECOSOC) established a UN Committee of Experts on Global Geospatial Information Management (GGIM). The aim of the UN-GGIM is to advance international cooperation in geospatial information management by making accurate and authoritative geospatial information readily available, particularly in support of advancing sustainable development. The UN-GGIM reports to the UN Assembly via the UN Economic and Social Council (ECOSOC). ECOSOC has instructed UN-GGIM to work according to a five-year programme and to provide its first report in 2016.

The work of GGIM is based on a list of key issues. These are:

- Developing a national, regional and global strategic framework for geospatial information
- Establishing institutional arrangements, legal and common frameworks
- Building capability and capacity, especially in developing countries
- Assuring the quality of geospatial information
- Promoting data sharing, accessibility and dissemination
- Embracing trends in Information Technology
- Promoting geospatial advocacy and awareness
- Partnering with civil society and the private sector

The GGIM held its second session at UN Headquarters in New York from 13 to 15 August. Over 50 UN Member States were represented together with representatives from 10 international organizations, including the IHO. Director Ward represented the IHO.

The 2nd session of the Committee considered various reports under the following themes:

- Future trends
- Outcome of the recent UN Conference on Sustainable Development (Rio+20)
- An overarching Statement of Ethics for geospatial information management
- Development of a UN-sponsored knowledge base for geospatial information management
- The status of mapping in the world
- A global geodetic reference system
- Developing a global map for sustainable development

The work of the UN-GGIM is of relevance to the IHO, particularly in relation to the continuing development of spatial data infrastructures around the world, and the role that IHO Member States can play in the provision of fundamental data and information covering the maritime domain.

As a result of input from the IHO at GGIM-2, the status of charting and surveying will now be added to the Committee's on-going study of the status of mapping in the world.

Commander Catapang, Chief of the Nautical Chart Division and Mr Caradang, Deputy Administrator of the National Mapping and Resource Information Authority (NAMRIA) of The Philippines visit Director Ward at GGIM-2.

GGIM also invited ISO, IHO, and the Open Geospatial Consortium (OGC) to develop proposals on issues related to standard setting in the international community for consideration by the next session of GGIM. This is another important development for the IHO because it will highlight the role that the IHO is playing in global geospatial standards setting, and in particular its recent work on establishing the S-100 standard.



CO-OPERATIVE MECHANISM ON SAFETY OF NAVIGATION AND ENVIRONMENTAL PROTECTION IN THE STRAITS OF MALACCA AND SINGAPORE 5TH CO-OPERATION FORUM Singapore, 24-25 September



The 5th Co-operation Forum under the Co-operative Mechanism on Safety of Navigation and Environmental Protection in the Straits of Malacca and Singapore took place on 24 and 25 September in Singapore. 150 delegates representing 32 Coastal States, including the littoral States of Indonesia, Malaysia and Singapore and 14 stakeholder organisations attended the Forum. The President represented the IHO.

The Cooperative Mechanism on Safety of Navigation and Environmental Protection in the Straits of Malacca and Singapore was instituted in 2008 to help keep the Straits of Malacca and Singapore safe, clean and open for navigation. The 5th Co-operation Forum enabled stakeholders, including the littoral States, other States with shipping interests and a range of maritime stakeholders to exchange views and report progress on various projects aimed at safety of navigation and protection of the marine environment.

A particular focus of the 5th Forum was an examination of the synergies between the near completed Marine Electronic Highway (MEH) Demonstration Project and the continuing development of the e-Navigation concept under the auspices of the International Maritime Organization (IMO). It was agreed by the forum participants that further development of a Marine Electronic Highway for the Straits of Malacca and Singapore might be undertaken as a project under the Cooperative Mechanism.

In an informal side meeting, the representatives of Norway, Singapore, the Chair of the IMO Correspondence Group on e-Navigation, the International Association of Aids to Navigation and Lighthouse Authorities (IALA), the International Chamber of Shipping (ICS) and the IHO considered a number of practical measures and projects that could assist in the establishment of an MEH for the region. An outline was presented to the Forum, for further consideration by the executive bodies of the Cooperative Mechanism. The informal group agreed to meet again during the e-Navigation Underway Conference (see: <http://www.e-navigation.net>) organised jointly by the Danish Maritime Administration and IALA.

MEETING BETWEEN THE IHO AND THE EUROPEAN COMMISSION Brussels, Belgium, 10 October

Following the signature, during the opening session of the 18th International Hydrographic Conference, of the Memorandum of Understanding on establishing a cooperation on maritime affairs between the IHO and the European Commission (EC), a kick-off meeting took place in Brussels, Belgium, on 10 October 2012. Hosted by the Directorate-General for Maritime Affairs and Fisheries (DG Mare), the meeting was attended by 6 representatives from the European Commission (DG Mare, DG Mobility and Transport, DG Environment, DG Enterprise and Industry, DG Regional Policy) and 9 representatives from the IHO (France, Germany, Norway, Sweden, United Kingdom, IHB).

After a round of presentation, the meeting reviewed the progress of the European Marine Observation and Data Network (EMODNET) and other regional and national projects of mutual interest (Baltic Sea Bathymetric Database, MonaLisa, Bringing Sea and Land Together, Litto3D). The recently published Green Paper on "Marine Knowledge 2020" was introduced by DG Mare and the IHO representatives provided their initial comments. The respective role of Hydrographic Offices, industry and other stakeholders was discussed.

The way forward in implementing the MOU was outlined, taking into account the IHO Work Programme and the responsibilities of the relevant Regional Hydrographic Commissions. The next phase will focus on coordinating the response of the IHO to the Green Paper and facilitating mutual participation at relevant IHO and EC activities. A workshop on the results of the Green Paper was tentatively planned in March 2013, followed by a second formal IHO-EC meeting around World Hydrography Day 2013.



91ST SESSION OF THE IMO MARITIME SAFETY COMMITTEE

London, UK, 26-30 November

The Maritime Safety Committee (MSC) is the highest technical body of the International Maritime Organization. The functions of the MSC are to consider matters concerned with aids to navigation, construction and equipment of vessels, manning from a safety standpoint, rules for the prevention of collisions, handling of dangerous cargoes, maritime safety procedures and requirements, hydrographic information, log-books and navigational records, marine casualty investigations, salvage and rescue and any other matters directly affecting maritime safety. The 91st session of the IMO Maritime Safety Committee (MSC 91) was held at the IMO Headquarters in London from 26 – 30 November. The President Robert Ward and Assistant Director Wyatt represented the IHO.



IMO MSC 91 Plenary in session

Of particular interest to the IHO, the MSC endorsed the revised ECDIS Training syllabus that was completed at the 43rd session of the MSC Sub-Committee on Standards of Training and Watchkeeping (STW 43) earlier in the year.

The MSC also addressed other matters related to hydrography and nautical charting including those resulting from the 58th session of its Sub-Committee on Safety of Navigation (NAV 58). The main items included adopting a large number of new routing measures, traffic separation schemes and mandatory ship reporting systems. The MSC noted the progress which had been made in the development of an e-Navigation strategy implementation plan and in the development of the revised draft text of the policy and development of symbols for AIS Aids to Navigation. The MSC also re-established correspondence groups to progress both of these issues.

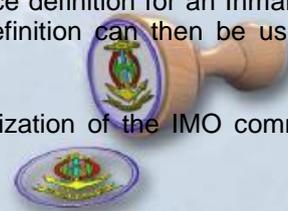
After extended discussion, the MSC endorsed SN.1/Circ.312 on operating anomalies within ECDIS, and noted the outcome of a meeting held between the IMO Secretariat and Original Equipment Manufacturers (OEMs) of ECDIS and a subsequent workshop organised and chaired by the IHO Secretariat to continue to address operating anomalies identified within ECDIS. The Committee urged ship owners, managers and ships to use the information provided on the IHO website and on the websites of individual ECDIS manufacturers to ensure their ECDIS systems were updated to meet the latest applicable standards. The MSC noted the information provided by Japan on the action taken by Japanese manufacturers of ECDIS to address operating anomalies identified in their older equipment.

After further discussion the MSC agreed to a proposal from the United Kingdom to include ECDIS matters on the agenda of future sessions of NAV and, taking into consideration the need to address the issue of ECDIS anomalies as early as possible, to include it in the agenda for the next session of NAV in 2013.

The MSC also considered a number of matters arising from the 16th session of its Sub-Committee on Radiocommunications and Search and Rescue (COMSAR 16). The MSC endorsed the action taken by COMSAR to invite the International Electrotechnical Commission (IEC), assisted by the International Mobile Satellite Organization (IMSO) and the Comité International Radio-Maritime (CIRM), to develop a data interface definition for an Inmarsat C SafetyNET terminal, similar to the existing definition for NAVTEX. This interface definition can then be used by manufacturers of Inmarsat C terminals and navigation display systems, such as ECDIS.

The MSC 91 completed its work with a lengthy discussion on the proposed reorganization of the IMO committee structure.

The next session of MSC will take place at IMO Headquarters in June 2013.



CONFERENCES / SEMINARS / WORKSHOPS

INTERNATIONAL SEMINAR ON THE IMPORTANCE OF HYDROGRAPHIC SERVICES IN RELATION TO NATURAL DISASTERS AFFECTING COASTAL AREAS

Tokyo, Japan, 7-8 August

The Japan Hydrographic and Oceanographic Department (JHOD) of the Japan Coastguard held a seminar on the importance of hydrographic services in relation to natural disasters affecting coastal areas. The seminar was prompted by JHOD's involvement in the aftermath of the earthquake and tsunami that affected Japan on 11 March 2011. Representatives from various Japanese government and other institutions, together with the national hydrographers of States within the region that are vulnerable to significant natural disasters such as tsunami, extreme weather events and flooding, attended the seminar. The Hydrographers or senior hydrographic representatives of China, Indonesia, Malaysia, Philippines, Republic of Korea, Thailand and Sri Lanka were present.

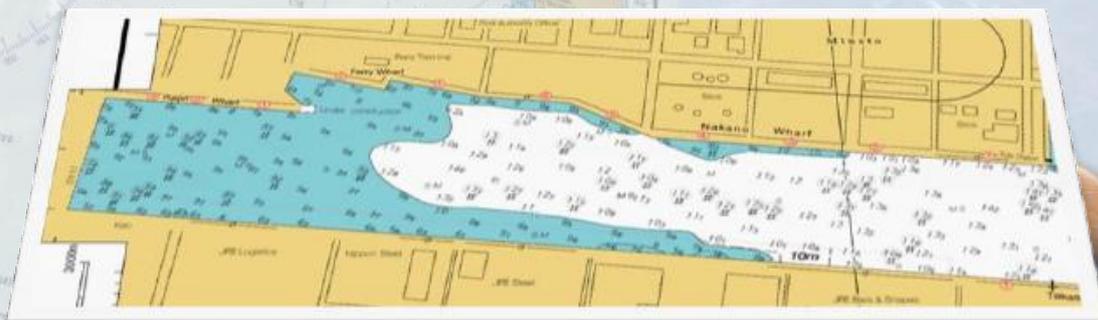
Director Robert Ward provided an opening address in which he highlighted the IHO Resolution dealing with assistance in the event of natural disasters and the most recent additions to that Resolution, proposed by Japan. Foremost in the amendments is an emphasis on the need for vulnerable States to develop contingency plans in advance of natural disasters so that appropriate action and coordination can be put into effect as swiftly as possible afterwards.



Dr Sengoku, JHOD's Director of External Relations in discussion with Director Ward

Various presentations were made, both on the recent experience of JHOD, and also activities and lessons learned from those States affected by earlier tsunami - particularly the Indian Ocean tsunami of 26 December 2004.

A site visit to the area most affected by the 2011 tsunami took place on the second day of the seminar. New surveys were continuing in the harbour, more than a year after the disaster.



Revised chart of Sendai Port showing a very large number of underwater obstructions - debris left in the aftermath of the tsunami.

As a result of the seminar, the participating States agreed a Declaration - to be known as *The Tokyo Declaration*. Under this declaration it has been agreed that coordination and cooperation under the auspices of the East Asia Hydrographic Commission will greatly assist in the development of appropriate contingency plans for each State, and in the execution of those plans and in the rendering of appropriate assistance such as practical surveying and charting. As a result, practical measures will be discussed and reviewed at the meetings of the Commission.

7TH ABLOS CONFERENCE IHB, Monaco, 3-6 October

The 7th ABLOS Conference entitled "*UNCLOS in a Changing World*" was held in the Salle du Ponant, Princess Grace Theatre, in Monaco from 3 - 5 October 2012. The Conference attracted an audience of nearly 90 delegates from 26 countries with 30 papers being presented during 11 sessions. The Keynote Address "Maritime Claims in the South China Sea: Issues and Challenges" was delivered by Professor Robert Beckman, the Director of the Centre for International Law, National University of Singapore. The delegates and accompanying persons were the guests of the IHO at a reception held in the Foyer of the Salle du Ponant. Most of the papers submitted and presentations given during the Conference are available for download from the IHO web site www.iho.int > Committees > ABLOS > 7th Conference.

In a departure from previous Conferences, the event coincided with the week of GEBCO meetings and Science Day. Delegates were able to attend the series of presentations and poster displays, which made up the GEBCO Science Day, whilst GEBCO delegates were able to attend the first day of the ABLOS Conference.

HSH Prince Albert II of Monaco honoured both Organizations by formally opening both events at an official Opening Ceremony on Tuesday 2 October, prior to the start of the GEBCO Science Day.



HSH Prince Albert delivering his address prior to formally opening the GEBCO Science day and 7th ABLOS Conference





7th ABLOS Conference in session

**SYMPOSIUM : « LAW OF THE SEA, 30 YEARS AFTER MONTEGO BAY,
ECONOMIC OPPORTUNITIES AND ENVIRONMENTAL CHALLENGES »
Monaco, Principality of Monaco, 9 October**

Director Gilles BESSERO represented the IHO at a Symposium on the Law of the Sea which was held on 9 October 2012 onboard the French Naval ship "Tonnerre", an amphibious assault, command and power projection ship, on a port call in the Monaco Hercules Port.

Placed under the high patronage of HSH Prince Albert II, this symposium was organized by the magazine « *Marine et Océans* » with the support of the French Navy and General Secretariat of the Sea and the Monegasque foundations - the Prince Albert IInd of Monaco Foundation, Oceanographic Institute - Albert Ist Foundation, Prince of Monaco.

Bringing together more than 300 participants, mainly French and Monegasque, the Symposium covered the following subjects : the advances and limits of the law of the sea, the state of the marine environment in contact with human activity, the economic pressures and environmental changes and the perspectives of change in the managing of the oceans.

In his opening speech, the Minister of State of Monaco hailed the work undertaken by the organizations based in Monaco in the domain of the seas and oceans, making particular mention of the IHO and the 7th ABLOS Conference. Gilles BESSERO emphasized the need to encourage the improvement of the knowledge of the seabed after having evoked the limits of the current state of surveys worldwide.

HSH Prince Albert II was present at the opening of the Symposium and made the closing address.

**E-NAVIGATION WORKSHOP ON INFORMATION EXCHANGE
AND COMMUNICATIONS IN POLAR REGIONS
Haugesund, Norway, 17 - 18 October**

The Norwegian Coastal Administration organized a focussed workshop on e-navigation and information exchange and communications in polar regions. The workshop paid particular attention to the potential difficulties in implementing an e-navigation environment in polar regions where consistently reliable digital communications channels are problematic.

The workshop comprised over thirty contributors from the telecommunications industry, several mariners experienced in polar operations, potential e-navigation equipment suppliers and a representative from each of the secretariats of the IMO and IHO. The President represented the IHO.



The workshop was convened by Mr John Erik Hagen, the Director of the Western Region of the Norwegian Coastal Administration and Chair of the IMO Correspondence Group on e-navigation.



During a break in the workshop, Captain Jon Leon Ervik of the Norwegian Coastal Administration indicates LRIT and other information being monitored in the EMSA North Atlantic Information Management Centre.

The principal outcome of the workshop was the development of an advanced draft of a submission to the next session of the IMO Sub-Committee on Communications and Search and Rescue (COMSAR) scheduled to take place in January 2013. The draft confirmed that improvements to communications would be required before e-Navigation could be successfully implemented in polar regions. A very significant proposal included in the submission was a proposal that IMO Member States should consider using the shore-based infrastructure that supports the Long Range Identification and Tracking (LRIT) requirement to support the shore-based exchange and distribution of e-Navigation information. It was highlighted that the LRIT infrastructure had already been agreed and implemented by the IMO and was particularly suitable to support the infrastructure requirements of e-navigation. It also has an embedded trials and development facility that could be used to test any e-Navigation service prior to full implementation.

At the invitation of the Chair of the IMO Correspondence Group and in support of the fact that the IMO has already agreed that IHO S-100 will be the baseline standard for e-navigation information, the President briefed the workshop participants on the standard.

2ND FLUVIAL HYDROGRAPHY WORKSHOP Iquitos, Peru, 12-13 November

The 2nd Fluvial Hydrography Workshop, organized and hosted by the Peruvian Hydrographic Service for Navigation of the Amazon (SHNA), was held in Iquitos (Peru) on 12-13 November 2012. Chaired by CDR Hugo Montoro (Commander, SHNA) this was a follow-on to the 1st Workshop that was held in Iquitos in November 2007.

Over 45 persons attended the Workshop including representatives from hydrographic offices, inland waterway transportation agencies, and companies who conduct inland/river hydrographic surveys. Attendees included persons from Hydrographic Offices of Brazil, Ecuador and Peru, and representatives from commercial companies of Canada, Peru and the United States. There were also observers from the Inland ENC Harmonization Group (IEHG) which met in Iquitos later that week.



The Workshop involved a series of seminars and on-water demonstrations aimed at increasing the level of knowledge of the hydro-dynamic process that influences dynamic changes in South American river systems. Presentations by Dr. Jorge Abad (University of Pittsburgh, Pennsylvania, USA) explained how parameters such as volume and velocity of water flow, sediment transport, and river bed composition/morphology are the primary factors. He also provided examples of complex river meander shapes and fluctuations that occur in Peru and Brazil. Another series of presentations by Mr. Kevin Oberg (US Geological Survey) provided both a theoretical background and practical advice on the use of Acoustic Doppler Current Profilers (ADCPs).

This Workshop had several take-home messages related to conducting fluvial hydrographic surveys. In addition to using satellite images to monitor changes in river configuration, there is also a need to rely on field observations, experimental measurements, and numerical modelling in order to better predict changes in river configuration that continually occur. When conducting fluvial hydro surveys, various types of equipment and procedures are required that are not often used when conducting hydrographic surveys in ocean and coastal regions. In this regard, it was recommended that there may be a need to review existing IHO standards on hydrographic surveying in terms of their application and adequacy for conducting hydrographic surveys in dynamic, river systems. In particular, this includes *IHO Standards for Hydrographic Surveys (S-44)* and the *Manual on Hydrography (C-13)*.

ECDIS REVOLUTION CONFERENCE **London, UK, 21-22 November**

The third Annual ECDIS Revolution Conference and Exhibition, organized jointly by Quaynote Communications and Da Gama - Navigation Management, was held in London on 21-22 November 2012. Director Gilles Bessero attended the Conference and gave a presentation on the “Chart Developers’ point of view” addressing ENC availability, standards maintenance and implementation issues.

The Conference brought together about 70 participants from Hydrographic Offices (Oman, Norway, UK), RENCs (Primar, IC-ENC), Navies (Norway, Singapore), the UK Maritime and Coastguard Agency, Nautical Institutions, Shipping Companies, ECDIS training providers, ECDIS manufacturers and maritime consultants. The main focus was on ways and means to ensure mastery of the ECDIS on the bridge, from the procurement of the equipment to training and routine operation of ECDIS. ENC issues were not at the top of the list, although concerns were expressed that ENCs derived from paper charts do not display enough depth contours to optimize route planning and monitoring when under keel clearance is limited. A small exhibition complemented the Conference.

Further information on the Conference is available from the web site <http://www.ecdisrevolution.org/>.



VISITS TO IHB

VISIT BY STUDENTS FROM THE INTERNATIONAL TRIBUNAL ON THE LAW OF THE SEA (ITLoS)

A course leader and seven students attending a 9-month course, funded by the NIPPON Foundation, at ITLoS in Hamburg, Germany, visited the IHB on Thursday 30 August 2012 where they received a briefing on "Hydrography and UNCLOS" followed by a Question and Answer Session. The visit was part of the International Liaison section of their course. In addition to the IHB they will visit other intergovernmental organizations in Europe. .

The course leader, Mr Matthias Füracker, came from Germany and the students were from: Armenia, Gambia, Dominican Republic, Chile, Republic of Guinea, Sri Lanka and Myanmar.



ITLoS course with IHB President and Directors



NEW HYDROGRAPHERS

HEAD OF THE MARITIME HYDROGRAPHIC DIRECTORATE

Romania

Captain Vasile NECULA



Captain Vasile Necula was born in 1962 in Comănești, Bacău district. He graduated from the Marine Military High School "A. I. Cuza " in 1981 and then the Marine Institute "Mircea cel Bătrân", Faculty of Navigation, in 1985. Upon graduation he was assigned the command of a motor torpedo boat within Battalion 81, Motor Torpedo Boats, until 1989, when he was promoted to Division Commander in the same unit of hydrofoil motor torpedo boats.

From 1997 to 1998 he served as Chief Mate on a large torpedo boat.

In 2000 he graduated from the Joint Arms of High Military Studies Academy in Bucharest, on completion of which he was appointed Commander of a large torpedo boat.

In 2001 he was authorized by order of the Chief of Navy Staff to take up the position of Chief of Staff to Battalion 81 of hydrofoil motor torpedo boats.

From 2001 until 2003 he served as Commander of a hydrofoil motor torpedo boats department and Commander of a large motor torpedo boat.

In July 2001 he was appointed First Officer in the battle training office to the Deputy Chief for staff matters within the Naval Academy "Mircea cel Bătrân".

In 2003 he served as Chief of the battle training office to the Chief of Staff of the Naval Academy "Mircea cel Bătrân".

In 2005 he attended a postgraduate management course "Human and Material Resources Management of the Navy".

In 2006-2008 he served as Commander of Battalion 306, School Training Vessel .

In 2008 he was appointed Deputy Chief of Staff for Support to the Fleet Command.

In 2009 he was Deputy Chief of Staff for Training to the Fleet Command.

In 2012 he graduated from the Postgraduate Course of Strategic Management Improvement (joint level) within the National Defense University "Carol I".

On 7 May 2012 he was appointed Head of the Maritime Hydrographic Directorate.

He is married and has one daughter.

EDUCATION:

- Postgraduate Course of Strategic Management Improvement (joint level) - 2012
- Intermediate English Course - 2009
- "Human and Material Resources Management of the Navy "postgraduate course - 2005
- High Military Studies Academy in Bucharest, Joint Arms Faculty, marine leading specialty - 2000
- Staff Course of Intensive and Integrator French Language - 1998
- Navigation Experts Course - 1995
- Perfecting Course for Vessel Commanders - 1987
- Marine Institute "Mircea cel Bătrân", Faculty of Navigation, 1981 - 1985
- Marine Military High School "A. I. Cuza ", 1977 – 1981



DATE OF RANK ADVANCEMENT:

- 1985 - Lieutenant
- 1988 - Lieutenant - major
- 1992 - Captain
- 1996 - Lieutenant-Commander
- 2001 - Commander
- 2006 - Captain

ORDERS AND MEDALS:

- The honorary sign "In the Army Service" for 15 years length of service
- The honorary sign "In Service of the Country" for 20 years length of service
- The honorary sign "In Service of the Country" for 25 years length of service
- Emblem of merit "In the Romanian Army Service" class II
- Emblem of Honor of the Romanian Army
- Emblem of Honor of the General Staff
- Emblem of Honor of the Navy
- Knight of the Order "Maritime Virtue"

NEW DIRECTOR OF THE NOAA OFFICE OF COAST SURVEY
United States of America
Rear Admiral Gerd GLANG



Following his promotion to Rear Admiral, Gerd GLANG was appointed in August Director of the NOAA Office of Coast Survey and Chief Hydrographer responsible for mapping and charting of all the US coastal waters. He succeeds Captain John E. LOWELL who retired in June following a 29-year career in the NOAA Corps, serving the last three years as Director of NOAA's Office of Coast Survey.

A NOAA Corps officer since 1989, Rear Admiral GLANG has a strong background in the hydrographic surveying and seafloor mapping sciences that are the foundation of Coast Survey's primary mission. As a result of an 18-month sea tour as Commanding Officer of NOAA Ship *Ronald H. Brown* mapping the ocean in support of tsunami modeling and conducting deep water coral studies, he has gained the experience to broaden the applications of hydrographic data acquired for updating charts. He initially gained his hydrographic expertise on three sea tours of NOAA Ship *Whiting*, as executive officer of NOAA Ship *Heck* and as junior officer on his first sea assignment with NOAA Ship *Rainier* in 1989.

He graduated in 1984 from the State University of New York Maritime College with a bachelor's degree in engineering and also received a graduate certificate in ocean mapping from the University of New Hampshire Center for Coastal and Ocean Mapping, and is a graduate of the Harvard Kennedy School Senior Executive Fellows program.

He is married with two children.

DIRECTOR OF THE HYDROGRAPHIC DEPARTMENT OF DPRK
Democratic People's Republic of Korea
Rear Admiral REE In Sop

We inform you that Rear Admiral REE In Sop was appointed Director of the Hydrographic Department of DPRK from July 15 as successor to Rear Admiral KIM Chang Sik.

Born on 6 November 1956, he has undertaken and performed various posts in the Navy.



DIRECTOR GENERAL OF THE KOREA HYDROGRAPHIC AND OCEANOGRAPHIC ADMINISTRATION

**Republic of Korea
Suk-Hyun KIM**

PERSONAL HYSTORY

He was appointed as Director General of the Korea Hydrographic and Oceanographic Administration on 6 August 2012.

In 1984, he graduated from the Hanyang University. In 2004, he took a master's degree in Water Resources Planning at Colorado State University.

I began my career as public official since 1986. Thereafter, he has built up my experiences in various divisions, including – amongst others – the River Environment Division, the Water Resources Policy Division, the River Flood Control Office, The Regional Construction and Management Administration of Ministry of Land, Transport and Maritime Affairs.

C.V.

Name: Suk-Hyun KIM

Date of birth: October 10, 1956

ACADEMIC BACKGROUND

1984 Bachelor Degree in Civil Engineering, Hanyang University

2004 Master's Degree in Water Resources Planning, Colorado State University

PROFESSIONAL CAREER

Aug. 12	Director General, Korea Hydrographic and Oceanographic Administration, MLTM
Marc. 11 – Jul. 12	Director General, Busan Regional Construction and Management Administration, MLTM
Mar. 10 – Feb. 11	Director, Han River Flood Control Office, MLTM
Mar. 08 – Mar. 10	Director, Water Resources Policy Division, Office of Construction and Water Resources Policy, MLTM
Dec. 05 – Mar. 08	Director, River Environment Division, Office of the City Infrastructure, MOCT
Sept. 05 – Dec. 05	Director, Safety Planning Division, Office of Construction Advancement, MOCT

COMMANDING OFFICER OF THE INSTITUTO HIDROGRAFICO DE LA MARINA Spain

Captain José Ramón Fernández de Mesa Tembours

On July 9th 2012, Captain José Ramón Fernández de Mesa Tembours took up the post of Commanding Officer and Director of the Instituto Hidrográfico de la Marina, IHM (Spanish Hydrographic Office).

Captain Fernández de Mesa was born in Madrid in 1958. He joined the Navy in 1978, graduated from the Naval Military Academy as Lieutenant Junior Grade in July 1983, and was promoted to Captain in July 2010.

He completed his Hydrographic Officer Master in 1988. During his professional career he assumed different posts, including a command post as: Commanding Officer of the Spanish



Hydrographic Vessel "Rigel", Executive Officer of the Spanish Hydrographic Vessel "Tofiño" and the Spanish Navy Frigate "Vencedora", and then Commanding Officer of the Spanish Hydrographic Vessel "Tofiño".

He also served on several Spanish Navy Vessels: Dock Landing Ship "Galicia", Amphibious Transport "Castilla", Minesweeper "Miño" and Oceanographic Research Vessel "Hespérides". He was Chief Operations and Survey Officer on the Oceanographic Research Vessel "Hespérides" during her Antarctic Campaign in 1994-1995.

He has a diploma in Human Resources High Management. His onshore services include the Petty Officers Naval Academy as a teacher, the Instituto Hidrográfico de la Marina, the Navy Staff in Madrid and the Ministry of Defence in Madrid.

NEW DIRECTOR OF THE OFFICE OF NAVIGATION, HYDROGRAPHY AND OCEANOGRAPHY

Turkey

Captain (Ph.D) Erhan GEZGIN



Captain (Ph.D) Erhan GEZGIN was born in Mannheim, Germany on 7 March 1963. He joined the Naval Academy in 1977 and graduated as an Ensign in 1985.

His service onboard ship was as follows:

- Communications Officer onboard a destroyer 1985-1988
- Operations Officer on a patrol boat 1988-1989

In 1991 he graduated from the Naval Postgraduate School, Monterey, CA, USA with an MS degree in Physical Oceanography, and then he joined the Turkish Navy Office of Navigation, Hydrography and Oceanography (TN-ONHO). He has been serving in the TN-ONHO in various posts since then.

In 1993 he temporarily worked for four months as a Summer Research Assistant at the NATO Undersea Research Center in La Spezia, Italy. He received a Ph.D degree in Physical Oceanography in January 2002.

He took up the post of Director of TN-ONHO on 31 August 2012 and currently is also acting as the Head of the Coordination Board which coordinates marine research activities in Turkey in accordance with a special law.

Capain GEZGIN speaks English and German.

He is married and has one daughter.

NEW DIRECTOR OF THE HELLENIC NAVY HYDROGRAPHIC SERVICE

Greece

Commodore Georgios LEVENTIS, HN

Commodore Georgios LEVENTIS, HN was born in Aliveri, Greece in 1961. He joined the Hellenic Naval Academy in September 1979 and graduated in June 1983 as an Ensign Deck Officer.

Since then he was promoted as follows:

- 1986 - Lieutenant Junior Grade
- 1990 - Lieutenant
- 1995 - Lieutenant Commander
- 2000 - Commander
- 2008 - Captain
- 2012 - Commodore



He has served onboard submarines, frigates and destroyers. The most important duties include:

- 1993-1995 Executive Officer of Submarine TRITON (S-112)
- 1995-2000 Commanding Officer of Submarine TRITON (S-112)
- 2000-2001 Operations Officer of Submarines Command

- 2001-2003 Weapon Systems and Training Officer in Kiel Naval Base for the new submarine class 214 program
- 2003-2004 Weapons Systems and Training Officer in Skaramaga Naval Base for the submarine program
- 2004-2006 Commanding Officer of FFGH HS AAEGEAN (F-460)
- 2006-2008 Head of HNGS Armaments Directorate Submarines program
- 2008-2010 Defence Attaché of Greece in The Netherlands and Belgium
- 2010-2011 Director of HNGS Armaments Directorate ME2 programs
- 2011-2012 Commander of War Headquarters HNGS WHQ Athens, GRC
- Aug 2012 Assumed duties as Director of the Hellenic Navy Hydrographic Service

Graduate of the Hellenic Naval War Academy and the National Defense College.

He has been awarded the following distinctions:

- Golden Cross of the Order of Honour
- Commander's Cross of the Order of Phoenix
- Medal of Military Merit B Class
- Medal of successful Command B class

He is married and has one son.

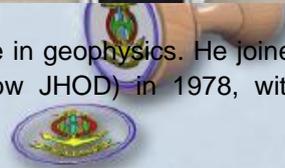
NEW DIRECTOR GENERAL OF THE HYDROGRAPHIC DEPARTMENT
Thailand
Vice Admiral Kittuch Virojvong

We inform you that Vice Admiral Kittuch Virojvong was appointed Director General of the Hydrographic Department of Thailand from December 2012 as successor to Vice Admiral Nirut Hongprasith.

NEW HYDROGRAPHER
Japan
Shin Tani

Mr. Shin TANI was appointed as the Chief Hydrographer of Japan on 27th August 2012, after serving as a Cabinet Counselor at the Cabinet Secretariat of Japan for almost nine years, where he led the National Program for the Extension of the Continental Shelf under the framework of the United Nations Convention on the Law of the Sea.

He was born in 1954 and graduated from the Kyoto University in 1976 where he majored in physical oceanography, followed by study at the Post Graduate School of Kyoto University in 1978 where he obtained the degree on Master of Science in geophysics. He joined the Hydrographic Department of the Japan Maritime Safety Agency (the then JHD, now JHOD) in 1978, with the qualification in physics for upper-echelon positions in the civil service.

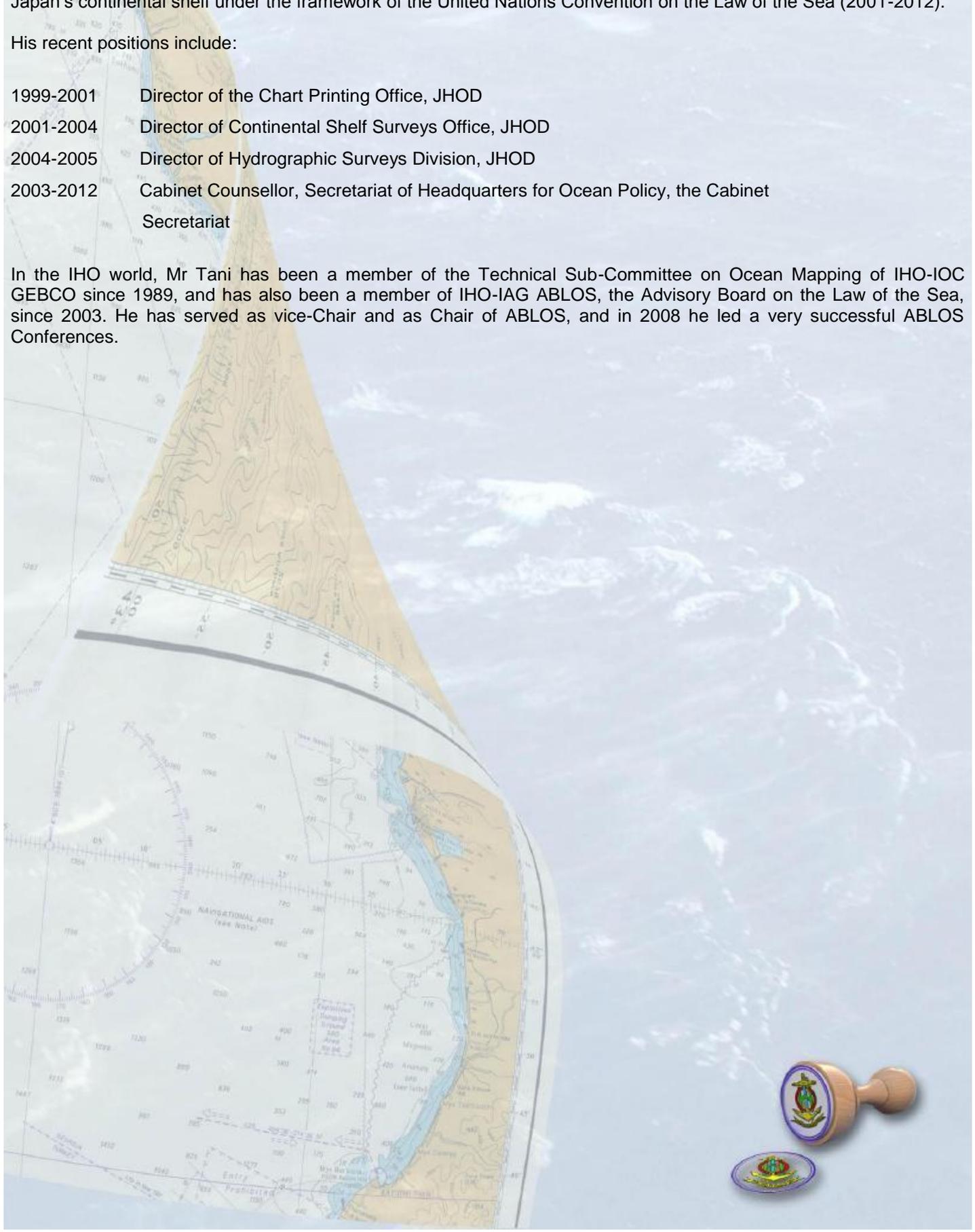


During more than 30 years of governmental service, Mr Tani has been involved in various hydrographic, geophysical and geodetic programs and projects, including the development of marine-spatial information management, processing of multibeam data, and modernization of chart printing. In particular, he led two important national programs - the transformation of the national geodetic system (1999-2001) and the recognition of the extension of Japan's continental shelf under the framework of the United Nations Convention on the Law of the Sea (2001-2012).

His recent positions include:

- 1999-2001 Director of the Chart Printing Office, JHOD
- 2001-2004 Director of Continental Shelf Surveys Office, JHOD
- 2004-2005 Director of Hydrographic Surveys Division, JHOD
- 2003-2012 Cabinet Counsellor, Secretariat of Headquarters for Ocean Policy, the Cabinet Secretariat

In the IHO world, Mr Tani has been a member of the Technical Sub-Committee on Ocean Mapping of IHO-IOC GEBCO since 1989, and has also been a member of IHO-IAG ABLOS, the Advisory Board on the Law of the Sea, since 2003. He has served as vice-Chair and as Chair of ABLOS, and in 2008 he led a very successful ABLOS Conferences.



INFORMATION OF INTEREST

NEW DIRECTING COMMITTEE

A new Directing Committee took over at the IHB on 1 September. The previous President of the Directing Committee, Vice Admiral Alexandros Maratos and Director, Captain Hugo Gorziglia had served ten years each.

Robert Ward from Australia took over as the new IHO President, having been in Monaco for the past five years as the Director responsible for the IHO's technical programme. He was joined by Mustafa Iptes and Gilles Bessero, the former national Hydrographers of Turkey and France. Director Iptes assumed responsibility for the IHO's regional coordination and capacity building programme, while Director Bessero will oversee the IHO technical programme.

The old and the new Directing Committee were presented to His Serene Highness Prince Albert II of Monaco as part of the handover procedure.



l.to r. : Mustafa Iptes, Hugo Gorziglia, Robert Ward, HSH Prince Albert II, Alexandros Maratos, Gilles Bessero

The new Directing Committee was elected by the 81 Member States of the IHO at the 18th International Hydrographic Conference in April.

