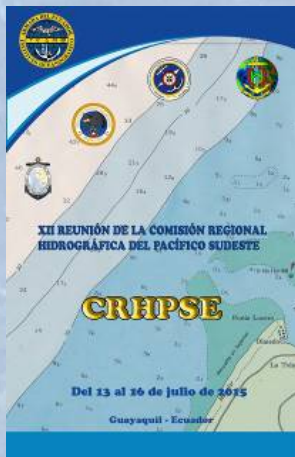


12TH MEETING OF THE SOUTH-EAST PACIFIC REGIONAL HYDROGRAPHIC COMMISSION (SEPRHC)

Guayaquil, Ecuador, 13-16 July



The 12th meeting of the South-East Pacific Regional Hydrographic Commission (SEPRHC) was hosted and chaired by the Hydrographic Office of Ecuador (*Instituto Oceanográfico de la Armada - INOCAR*) from 13 to 16 July 2015. Eighteen delegates attended the Conference. The participants included six representatives from three of the four IHO Member States of the Region (Chile, Ecuador and Peru), four observers from Mexico, the United Kingdom, the IHO-IOC GEBCO Project and the IC-ENC coordinating centre, and seven observers from industry. Representatives of Colombia participated in most of the Conference by video-link. The IHB Directing Committee was represented by Director Gilles Bessero who provided a briefing on current IHO issues and the work of the IHB.

The opening ceremony, chaired by the National Director of Marine Spaces of Ecuador, marked the change of chairmanship from Peru to Ecuador. The subsequent sessions were chaired by the Director of INOCAR. The Members of the Commission presented the reports on their national activities since the 11th Conference held in 2013. While significant progress in the coverage of Electronic Navigational Charts (ENC) for the region was reported, it was noted that due to limited resources and national priorities, the development of the INT chart scheme was at a standstill. The coordinators of the HSSC, IRCC, CBSC and WEND-WG groups reported on their work. The Commission discussed its future activities in connection with the IHO Work Programme and adopted its work plan for 2015-2016.



Director Bessero addressing the opening ceremony



The participants in the entrance hall of INOCAR



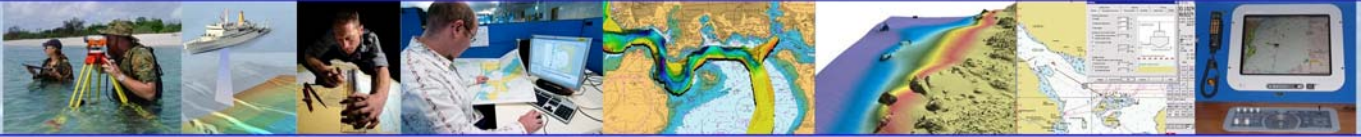
The representative of the United Kingdom highlighted the development of new products and new printing services. The representative of Mexico invited the Commission to support an initiative aiming at acknowledging Spanish as an official language of the IHO. The IC-ENC representative briefed the Commission on the support provided to assist IC-ENC members in developing their ENC production and on the IC-ENC policy on overlapping ENCs. He reported that all potential overlaps within the Region had been resolved prior to the release of the relevant ENCs by IC-ENC. Following the presentation of the GEBCO project by the Secretary of the GEBCO Guiding Committee, the Commission agreed to consider the possibility of re-activating the International Bathymetric Chart of the South East Pacific project.

The representatives from industry updated the Commission on their activities and products relevant to the activities of Hydrographic Offices.

The Commission agreed to a number of clarifications to the Statutes of the Commission.

It is expected that the next meeting of the Commission will be hosted by Colombia in 2017.

All the documents of the meeting are posted on the SEPRHC page of the IHO website.



2ND NORTH ATLANTIC SEABED MAPPING MEETING ON THE IMPLEMENTATION OF THE GALWAY STATEMENT AND 2ND STAKEHOLDER MEETING

Cork, Ireland, 9 July

The Galway Statement was an outcome of the Conference on “*The Atlantic – A Shared Resource*” held in Galway, Ireland, from 23 to 24 May 2013, where representatives of the European Union (EU), the United States of America (USA) and Canada agreed to join forces on Atlantic Ocean Research. The goal is to better understand the Atlantic Ocean and promote the sustainable management of its resources. The Galway Statement aims to connect the ocean observation efforts of the three partners. The work will also study the interplay of the Atlantic Ocean with the Arctic Ocean, particularly in relation to climate change. The actual sea area covered by the Statement is not precisely defined.

The 2nd Seabed Mapping meeting on the Implementation of the Galway Statement, which followed on from the first meeting in Brussels, Belgium, from 23 to 24 February 2015, was held in Cork, Ireland, on 9 July 2015. The meeting was chaired by Mr Alan Stevenson, British Geological Survey (BGS)/EuroGeoSurvey Marine Geology Expert Group (EGS MGEN) with representatives from the EU, Canada and USA as well as representatives from the European Commission (EC) and Non-Governmental Organizations.



2nd North Atlantic Seabed Mapping meeting participants with recovered USA Atlantic drift drone

Assistant Director David Wyatt represented the IHO and the IHO-IOC General Bathymetric Chart of the Oceans (GEBCO) Project.

The meeting reviewed the progress made since the previous meeting in Brussels, including a number of key issues relating to seabed and seabed habitat mapping. In particular the meeting received presentations on the European Ocean Observing System (EOOS), which is part of the Global Ocean Observing System (GOOS) of the Intergovernmental Oceanographic Commission (IOC) of UNESCO, the seabed mapping work undertaken by *Instituto Geológico y Minero de España* (IGME) off the south west coast of Spain, the results of a North Atlantic transect undertaken by *Celtic Explorer*, a research vessel operated by the Marine Institute of Ireland (INFOMAR), the preparations for transects by the Canadian Coast Guard vessels *Louis S. St-Laurent* and *Terry Fox* on route to the Arctic and a report on the data collection activities by research vessels of the German Leibniz Institute of Marine Sciences (IFM-GEOMAR), as well as US and EU policy up-dates.



Ms Jennifer Jencks demonstrating the updated IHO DCDB website

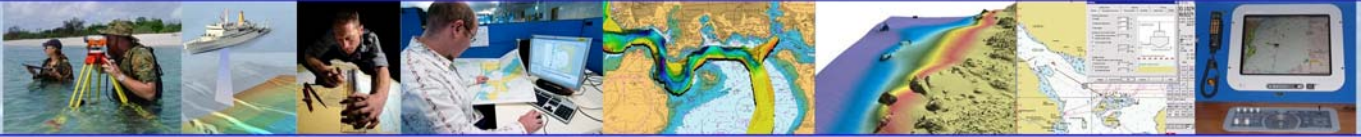
Assistant Director Wyatt and Ms Jennifer Jencks, from NOAA/National Centers for Environmental Information, gave a joint presentation and update on the IHO-IOC GEBCO Project activities and the current state of development on the updating of the IHO Data Center for Digital Bathymetry (DCDB). The new draft International Bathymetric Chart of the Arctic Ocean (IBCAO) and the potential to utilize current and past students of the GEBCO-Nippon Foundation Ocean Mapping course for multibeam system operations during transects were highlighted. The new

DCDB home page was displayed and the use of the DCDB as one of the main data storage portals for transects and area bathymetric data was generally agreed. It was noted that further development of the data uploading and access is required to ensure the processes are as simple as possible to encourage greater utilization.

There was further discussion on the basic principles and recommendations for pilot project areas. The participants at the meeting considered that close liaison must be maintained with the other elements of the North Atlantic mapping project to ensure targeted pilot areas maximize the limited resources available. All agreed that the IHO-IOC GEBCO Project and the IHO DCDB are important elements in relation to the collection and availability of bathymetric information for the Atlantic Ocean and that the identification and release of bathymetric data collected under national, academic and research programmes should be encouraged.

The meeting reviewed its outline draft Terms of Reference. Raising awareness of the need for mapping the Atlantic was acknowledged and identified as a particular area of focus for the participants.

The next seabed mapping meeting is planned for 29 October 2015 in St John's Newfoundland, Canada. The meeting report and all papers will be available from the EC web site at <http://ec.europa.eu/research/iscp/index.cfm?lg=en&pg=transatlantic-alliance>.



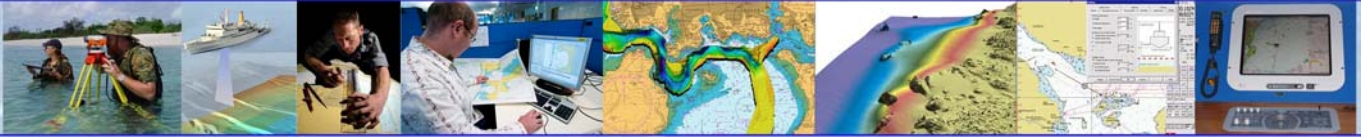
10TH MEETING OF THE DATA QUALITY WORKING GROUP Brest, France, 7 - 9 July

The 10th meeting of the Data Quality Working Group (DQWG) was hosted from 7 to 9 July 2015, in Brest, France, by the French Hydrographic Office (SHOM). The meeting was chaired by Mr Antti Cástren (Finland). Twelve delegates from seven Member States (Australia, Finland, France, Mexico, Netherlands, United Kingdom, and USA) and two expert contributors from industry attended the meeting. Assistant Director Yves Guillam represented the IHB.



The Working Group, in its role as the IHO data/product quality expert group, discussed how best to assist other working groups dealing with new product specifications. The DQWG agreed to draft a guidance document listing the questions that need to be addressed when determining what level of data quality is needed in an S-100 based product specification. This should ensure, in particular, harmonization of the data quality model for different product specifications.

As an example the working group reviewed a proposal made by the S-100 WG on the data quality section of the IHO S-101 – *ENC Product Specification*. Further work will be continued by correspondence on this matter to ensure compliance with other standards such as the ISO 19100 series of geographic standards. Data quality of non-bathymetric data, such as time and velocity attributes in the IHO S-111 - *Surface Current Product Specification*, were also addressed.

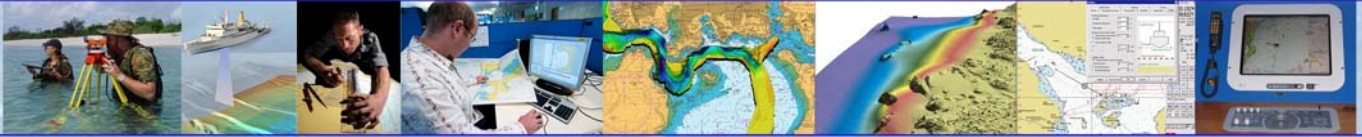


The development of indicators reflecting the quality of surveys and of bathymetric data to be portrayed on charts remain the core activity of the DQWG and most of its time was spent discussing a range of issues, including: feature detection, survey coverage, accuracy of measurements, temporal variation of dynamic seabed. One of the objectives of the Working Group is to assist in harmonizing the practices of Hydrographic Offices in the production of future products derived from surveys. Following the conclusions of a pragmatic report by the representative of Australia on the impact of a three-tier bathymetric data classification in future S-101 ENCs, the DQWG nevertheless agreed to retain the six-category S-57 model for Category Zone of Confidence (CATZOC). As for satellite derived bathymetry and portrayal related issues, the DQWG agreed that there was no need for any specific considerations as the current chart specifications to express uncertainty (position approximate, dashed iso lines, and so on) can be used to inform mariners on this type of data.

The DQWG agreed that the list of nautical shipping incidents, that was tentatively maintained by the DQWG and used by Hydro International, for instance, as an IHO reference, should be removed from the DQWG page of the IHO website. Hydrographic Offices will be invited to share future concerns and lessons learned from nautical shipping incidents with the relevant IHO working groups.

The DQWG initiated the preparation of a new draft work plan to be presented at the 7th meeting of the Hydrographic Services and Standards Committee in November 2015. The next meeting of the DQWG is scheduled to take place from 10 to 12 May 2016, in the USA.

Further information concerning the meeting is available on the IHO web site at www.iho.int > Committees & WG > DQWG > DQWG-10.

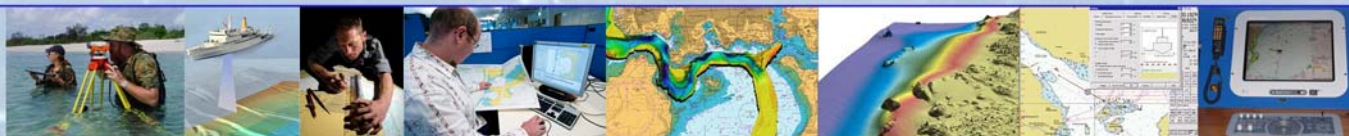


19TH CONFERENCE OF THE MEDITERRANEAN AND BLACK SEAS HYDROGRAPHIC COMMISSION Batumi, Georgia, 30 June-2 July

The 19th Conference of the Mediterranean and Black Seas Hydrographic Commission (MBSHC) was held in Batumi, Georgia from 30 June to 2 July, hosted by the State Hydrographic Service of Georgia. The Conference was chaired by Captain Erhan Gezgin, Director of the Turkish Navy Office of Navigation Hydrography and Oceanography (TN-ONHO). 40 representatives from Cyprus, Egypt, France, Georgia, Greece, Italy, Iran (Islamic Republic of), Israel, Lebanon, Malta, Monaco, Montenegro, Romania, Spain, Tunisia, Turkey, Ukraine, United Kingdom and United States of America attended the meeting. 13 IHO Member States of the region and four Associate Member States were therefore represented. Four partners from industry, IC-ENC and PRIMAR, the two Regional ENC Coordinating Centres (RENC), were also present as observers. The IHB was represented by Director Mustafa Iptes and Assistant Director Yves Guillam.



MEDITERRANEAN AND BLACK SEAS HYDROGRAPHIC COMMISSION
(MBSHC 19) 30 JUNE-2JULY 2015, BATUMI, GEORGIA



Director Iptes reported on the IHO Work Programme in general and on the positive momentum within the region with regard to the IHO and MBSHC memberships. While the MBSHC is the regional hydrographic commission of the IHO with the largest number of Members and Associate Members, other Coastal States, such as Lebanon and Israel, expressed their intention to submit their applications in due course. Georgia and Montenegro signed the MBSHC Statutes, thus becoming full MBSHC Members.

The IHB representatives provided informative presentations on the cooperation with the International Maritime Organization (IMO), on the main outcomes of the 28th session of the Assembly of the Intergovernmental Oceanographic Commission (IOC), on the development of standards and on the evolution of the IHO information management system using GIS¹ layers derived from the IHB country information database.

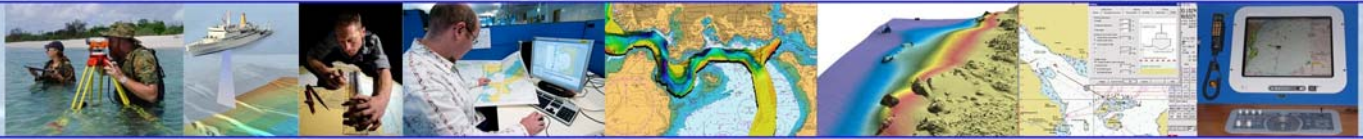
The Chair of the MBSHC and Director Iptes presented the most important decisions arising from the 7th meeting of the Inter-Regional Coordination Committee (IRCC-7) that have an impact on MBSHC activities: Decision 3 in particular, which introduces a two-year experimental procedure for the review of INT charts by the Regional Charting Coordinators, was explained as well as the remaining steps before the commissioning of the INTtoGIS project being developed by the IHB with the assistance of the Republic of Korea. This project intends to supersede the current maintenance process of the IHO S-11 Part B *Catalogue of INTERNATIONAL Charts* through the use of web services and to improve the quality and content of the associated INT charts regional databases. France, as the International Charting Coordinator for Region F, chaired two side-meetings to progress with INT and ENC scheming and chart production issues. Italy kindly offered to support France, and to take the lead of an ad hoc sub-working group of the nations concerned to identify the course of action needed for eliminating existing overlaps in the small scale ENC scheme covering the Mediterranean Sea.

The Conference covered a wide range of other important topics: Greece reported on the projects funded by the European Commission that are managed or monitored by the IHO-EU Network Working Group (IENWG) such as EMODnet² and Coastal Mapping. Based on the information provided by some Members, Spain also reported on the status of hydrographic surveying in the region as well as on Maritime Safety Information (MSI) in its role as NAVAREA III coordinator.

Director Iptes provided a general overview of the IHO capacity building activities. The representative of Turkey, as Capacity Building Coordinator for the region, reported on the outcomes of the 13th meeting of the Capacity Building Sub-Committee (CBSC), held in Mexico, in May. Technical visits to Montenegro and Albania are planned at the end of 2015 or early 2016.

¹ Geographic Information System.

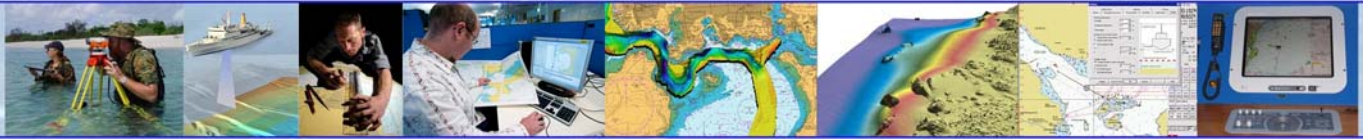
² European Marine Observation and Data Network



IC-ENC and PRIMAR gave a joint presentation on the benefits of distributing ENC through the RENCs and reported individually on the progress made with different ENC Producer nations and on the development of distribution solutions for IHO S-102-compliant bathymetric surface products. Egypt also announced that their ENCs covering the new Suez Canal had been issued on 2 July.

Participants from industry provided presentations on the evolution of the technologies available in the hydrographic domain. They had opportunities to talk with the delegates in the margins of the Conference.

At the end of the Conference, Bruno Frachon, Director General of SHOM (France), was elected as the new Chair of the MBSHC for the next two years. The 20th Conference of the MBSHC will take place in Montenegro, from 4 to 6 July 2017.



1ST MEETING OF THE NAUTICAL INFORMATION PROVISION WORKING GROUP (NIPWG)

Monaco, 29 June – 3 July

The 1st meeting of the Nautical Information Provision Working Group (NIPWG) took place at the International Hydrographic Bureau (IHB) in Monaco from 29 June to 3 July.

The NIPWG is one of the new working groups resulting from the implementation of a new organizational structure under the Hydrographic Services and Standards Committee (HSSC). It continues the activities of the former Standardization of Nautical Publications Working Group (SNPWG) with a broader mandate to develop general specifications in support of the e-navigation services that are intended to provide mariners with harmonized up-to-date information on integrated displays in the future.

Twenty participants from nine IHO Member States and five stakeholder organizations attended the meeting. The IHB was represented by Assistant Director Anthony Pharaoh. Director Gilles Bessero welcomed the participants and provided some inputs in relation to the e-navigation strategy implementation plan adopted by the International Maritime Organization (IMO). He also reported on the recently established liaison with the International Harbour Masters' Association (IHMA) concerning their related initiative on "Port Call Optimization".

Mr Jens Schröder-Fürstenberg (Germany) was elected Chair of the Working Group and Mr Edward Hosken (United Kingdom) was elected Vice-Chair. Mr Tom Loeper (USA) was appointed as Secretary.



Participants at the NIPWG-1 Meeting



The meeting reviewed the various items of the NIPWG work plan approved by the HSSC. Reports were presented and discussed on the continuing development of S-100 based product specifications, namely the Marine Protected Areas Product Specification (S-122), the Radio Services Product Specification (S-123), the Physical Environment Product Specification (S-126), and the Traffic Management Product Specification (S-127). Arrangements were agreed to ensure appropriate coordination with the development of the IHO Navigational Warning Product Specification (S-124) under the aegis of the World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC) and with the work of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) on the development of Maritime Service Portfolios. Reports on the project of the East Asia Hydrographic Commission (EAHC) on e-Marine Information Overlays and on the work undertaken by US agencies on geo-tagging features in nautical publications were considered. Further progress on addressing and testing the interactions between different product specifications within an ECDIS and the portrayal of quality indicators was discussed.

The participants were invited to attend the World Hydrography Day celebration which took place on board the Japan Coast Guard training vessel *Kojima*, berthed in the port of Monaco, on 30 June.

The next meeting of the Working Group was scheduled for 21 to 25 March 2016. The location will be decided at a later date.