

16TH MEETING OF THE DOCUMENT REVIEW WORKING GROUP OF THE IHO SUB-COMMITTEE ON THE WORLD-WIDE NAVIGATIONAL WARNING SERVICE (DRWG16)

London, UK, 27 February-1 March

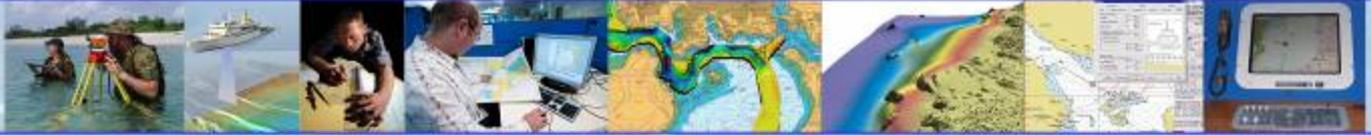
Contribution to the IHO Work Programme 2018	
Task 3.5.1	IRCC SC & WG meetings/WWNWS-SC
Task 3.5.2	WWNWS-SC meetings/DRWG
Task 3.5.3	Maintain and extend IHO standards, specifications and publications/S-53
Task 3.5.5	Participate and contribute to the IMO work items on the modernization of the GMDSS and the development of the e navigation implementation plan

The Document Review Working Group (DRWG) of the IHO Sub-Committee on the World-Wide Navigational Warning Service (WWNWS-SC), which is continuing its review of the WWNWS documentation, met at the Headquarters of the International Maritime Organization (IMO) in London, UK from 27 February to 1 March under the chairmanship of Mr Peter Doherty (USA). The meeting was held in the week following the fifth session of the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 5), to take advantage of the presence of WG Members who had previously attended NCSR 5 (Canada, Norway, Spain, UK, USA, IMO, World Meteorological Organization (WMO), International Mobile Satellite Organization (IMSO), Inmarsat, Iridium and IHO). The IHO Secretariat was represented by Assistant Director David Wyatt.

The outcomes of the 5th session of the IMO Sub-Committee on Navigation, Communications, and Search and Rescue (NCSR 5) relevant to the WWNWS-SC were reviewed. These included the work of a number of Correspondence Groups and groups developing equipment guidelines in which WWNWS-SC members should be involved.



DRWG16 participants at IMO Headquarters

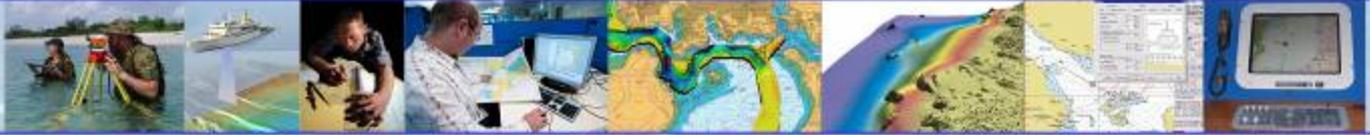


As a consequence of the decisions made at the NCSR 5, in particular the changes to the Inmarsat satellite constellation and services, the DRWG was invited to undertake a priority review of the IMO Resolutions A.705(17), as amended - *Promulgation of Maritime Safety Information*, A.706(17), as amended - *World-Wide Navigational Warning Service*, and A.1051(27) - *World-Wide Met-Ocean Information and Warning Service*. In addition the DRWG was invited to review the IHO publication S-53 – *Joint IMO/IHO/WMO Manual on Maritime Safety Information (MSI)* – and the *International SafetyNET Manual* to ensure full harmonization with the IMO resolutions and that they correctly reflected the changes to the Inmarsat satellite constellation and services. The outcomes will be considered by the next (tenth) meeting of the WWNWS-SC (WWNWS10), which will be held from 27-31 August 2018 in Monaco and subsequently submitted to the 6th session of the NCSR in January 2019.

Iridium presented the initial version of their GMDSS mobile satellite system guidance document – *Iridium EGC Satellite Services Manual*, which was reviewed and a number of suggested amendments were offered by the Group.

The DRWG also reviewed the draft agenda for the proposed joint sessions of WWNWS-SC and the World-Wide Met-Ocean Information Warning Service (WWMIWS) Committee, as well as their individual meeting agenda, in preparation for the meetings in August.

All meeting documents are available on the IHO website (http://www.iho.int/mtg_docs/com_wg/CPRNW/CPRNW_Doc-review/DRWG16/DRWG16.htm). The documents, submitted by the DRWG to WWNWS10, will be available on the WWNWS page of the IHO web site. The next meeting is tentatively planned 29-31 January 2019 at IMO in London.



8TH MEETING OF THE IHO-EU NETWORK WORKING GROUP AND 9TH MEETING OF THE IHO WITH DELEGATES OF THE EUROPEAN COMMISSION Brussels, Belgium, 27 - 28 February

Contribution to the IHO Work Programme 2018

Task 1.1.4	Attendance at 8th IENWG Meeting, Plenary Session, and the 9 th IHO-EC Meeting
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The IHO-EU Network Working Group (IENWG), established by the Inter-Regional Coordination Committee (IRCC) to monitor and deal with the activities and processes developed under the aegis of the European Union (EU), held its eighth meeting (IENWG-8) in a plenary session in Brussels, Belgium, on 27 February, at the Permanent Representation of France. It was followed by IHO-EC-9 which took place on the 28 February. Delegates representing DG-Mare¹, EuroGOOS², CPMR, DG-Grow³-Copernicus⁴, EMODnet⁵ were present.

The IENWG-8 meeting was chaired by Laurent Louvart (France) supported by Corine Lohet (France) as Executive Secretary of the IENWG. Twenty delegates including National Hydrographers, from 13 Member States (Belgium, Croatia, Denmark, France, Germany, Ireland, Italy, Latvia, Netherlands, Norway, Portugal, Spain, Sweden) attended the meetings. Assistant Director Yves Guillam represented the IHO Secretariat.

The main objectives of the IENWG-8 meeting were:

- to assess the achievements made by the IHO through the IENWG since the signature, in 2012, of the Memorandum of Understanding (MoU) between the IHO and the European Commission;
- to consider the current national hydrographic priorities in support of strategic European policies, directives and projects (Maritime Spatial Planning, Integrated Maritime Policy, Research & Innovation, Data Collection and Observation Network, Coastal Mapping, etc.);
- to review the business rules of procedure of the IENWG for better efficiency and outreach.

¹ Directorate-General – Maritime Affairs and Fisheries.

² European Global Ocean Observing System.

³ Directorate-General – Internal Market, Industry, Entrepreneurship and Small and Medium Size Enterprises.

⁴ European Earth Observation Programme (<http://marine.copernicus.eu>).

⁵ European Marine Observation and Data Network (<http://www.emodnet.eu>).



In support of these objectives, participants shared several experiences through comprehensive presentations, either thematic (Maritime Spatial Planning) or more strategic (examples of EU-funded cross-border projects by Croatia, Sweden).

While welcoming the progress achieved since 2012 and before, there was a general consensus for continuing the activities as a network, with possibilities to invite other IHO Member States to contribute actively in some projects on a case-by-case basis.



Participants at the 8th IENWG meeting, Brussels, Belgium

The IHO-EC-9 meeting was organized in the framework of the Memorandum of Understanding with the European Commission following the theme “*Protecting our coasts: how to anticipate and monitor coastal risks? The contribution of coastal data*”.



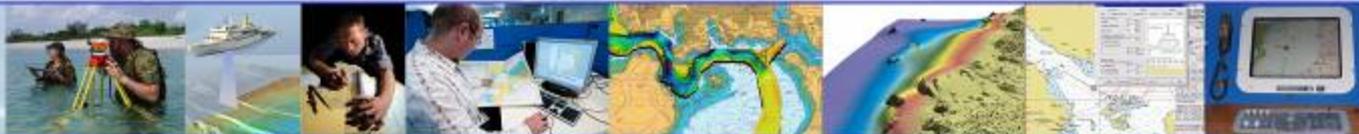
The economic value of “coastal bathymetry” authoritative data was raised several times, in line with the theme for the World Hydrography Day for 2018, in particular by the representative of EMODnet who introduced the video “*Wake up your [marine] data*”⁶.

Although it was highly recommended that EMODnet moves towards INSPIRE compliancy, it looks that the S-100 framework still needs to be promoted by Hydrographic Offices for further developments supported by the European Commission programmes. The participation of the IENWG at the EOOS Conference⁷ in November 2018 seems to be a good opportunity to promote the S-100 framework. The IHO will also need to consider the United Nations Decade of Ocean Science for Sustainable Development (2021-2030), as a key driver for the future.

The 9th meeting of the IENWG is planned back-to-back with the EOOS Conference in Brussels, Belgium in November.

⁶ <https://www.youtube.com/watch?v=p3vwngxyXuo>

⁷ European Ocean Observing System: <https://webgate.ec.europa.eu/maritimeforum/en/node/4123>



15TH CONFERENCE OF THE SOUTH WEST PACIFIC HYDROGRAPHIC COMMISSION AND TECHNICAL WORKSHOP ON IMPLEMENTING HYDROGRAPHIC GOVERNANCE Nadi, Fiji, 20-22 February

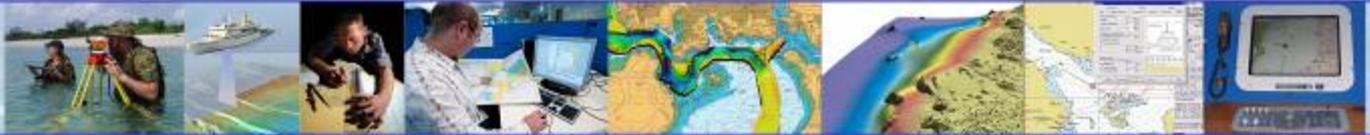
15th Conference of the South West Pacific Hydrographic Commission

The Royal Fijian Navy hosted the 15th Conference of the South West Pacific Hydrographic Commission (SWPHC) on 21-22 February in Nadi, Fiji. Representatives from all nine Member States of the Commission (Australia, Fiji, France, New Zealand, Papua New Guinea (PNG), Tonga, United Kingdom (UK), United States of America (USA) and Vanuatu), and six of the seven Associate Members (Cook Islands, Indonesia, Kiribati, Niue, Samoa and Solomon Islands) attended the meeting. Two Observer States (Nauru and Tuvalu), three international organisations and three representatives from industry also participated, a total of 39 participants. The IHO was represented by Director Abri Kampfer and Assistant Director Alberto Costa Neves.

The meeting was opened by Chief Guest, the Hon. Ratu Inoke Kuboabola (Fiji's Minister of Defence), and chaired by Commodore Fiona Freeman (Australia). Each of the coastal States present provided an update on their activities since the last meeting that took place in the Noumea, New Caledonia, 15 months previously. The meeting noted the support provided by Australia in conducting surveys in PNG, in becoming the primary charting authority for Solomon Islands, the hydrographic training provided to Fiji and the plans for surveying and charting in the region.



Participants to the 15th Conference of the South West Pacific Hydrographic Commission



The Commission acknowledged the significant progress made in Fiji since the last meeting with the support from Republic of Korea and other States in the region. New surveys and charts were conducted and plans for expanding the hydrographic service are in place. France reported the progress in New Caledonia, French Polynesia and Wallis & Futuna with new surveys and charts, including seven new ENC's, deployment of new survey systems, increase in the monitoring of sea level and availability of hydrographic-related data.

New Zealand informed the production of new ENC cells and New Editions (in country and in other States in the region), progress made in the Pacific Regional Navigation Initiative (PRNI) with increasing data discovery, risk assessment, capacity building, mitigation measures and partnerships. Surveys were conducted in its own waters and in Samoa, and surveys are planned in Cook Islands, Niue, Samoa, Tokelau and Tonga. Risk assessments were conducted in Samoa and Tokelau.

The progress made by PNG was noted by the Commission. With the support of the Asian Development Bank's Maritime & Waterways Safety Project (MWSP), surveys were conducted in ports and coastal areas and will be used to update the relevant charts. Tonga reported the new surveys and chart updated in cooperation with the neighboring countries and the developments in its hydrographic unit.



Mr Henry Worek (center) from Department of Ports & Harbours of Vanuatu receives the IHO crest from Director Abri Kampfer after signing the Statutes of the SWPCH as a full Member in the presence of Commodore Fiona Freeman (Australia), SWPHC Chair.

UK informed the meeting that 104 ENC's were published in the region since the last meeting, alongside updates to several nautical publications. Progress was made under the Commonwealth Marine Economies (CME) Programme for providing surveys, charting and capacity building in the region, with the ultimate goal to promote economic growth and prosperity.

The effort made by USA to allow existing source data to be available for charting was noted by the Commission, this will have substantial impact in US charts in the region. USA reported progress and plans for survey and charting in the region.

The progress made by Vanuatu was significant and acknowledged by the meeting. Since the last meeting the country became an IHO Member and during the Conference Vanuatu became a full Member

of the SWPHC. Progress was seen in the establishment of the national coordinating committee, the development of a survey priority plan and the plans to build a hydrographic unit.



The Cook Islands reported the surveys and charting done in bilateral agreement with New Zealand, in cooperation with The Pacific Community (SPC) and with industry support. Kiribati informed the meeting that a National Coordinator for MSI was established and plans are underway to establish hydrographic services. Nauru informed the meeting on the difficulties to put in place legislation to support the development of hydrography and nautical cartography in the country. Niue reported the support received from New Zealand through the PRNI and the plans to establish a National Hydrographic Authority and a National Coordination Committee. Palau reported the efforts to build capacity in the country.

Samoa reported the establishment of the National Hydrographic Committee and the risk assessment conducted by New Zealand and informed the plans to establish the National Coordinator for MSI and to establish a hydrographic office. The meeting was informed on the difficulties in Tuvalu to survey and update existing charts, but the country has plans to establish legislation and to establish a MSI position in the near future.

Cook Islands, Kiribati, Samoa and Tuvalu informed the Conference on their intention to become a Member State of the IHO.

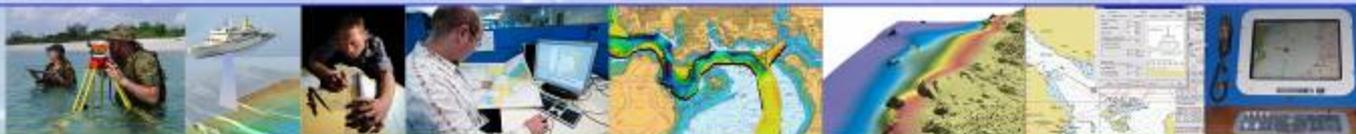
During the Conference Indonesia, from the neighboring EAHC signed the SWPHC Statutes as Associate Member, in order to facilitate the harmonization of ENC's, and to coordinate hydrographic surveys, capacity building activities, data sharing and exchange expertise.

SPC briefed the Commission on the development of its Pacific Safety of Navigation Project and the progress conducting hydrographic and geodetic surveys, implementing Aids to Navigation and supporting data discovery in the region. IALA World-Wide Academy informed the meeting on the work done via its needs assessment visits using risk assessment tools, bringing attention to the beneficiary countries on the shortcomings of their nautical charts and MSI infrastructure. GEBCO and New Zealand provided insights on the GEBCO Seabed 2030 Project with the support of the Nippon Foundation of Japan, the appointment of a Project Director and the next steps to be taken to advance toward its goals.

The Commission was informed about the significant impact of the severe tropical cyclone Gita just before the SWPHC16 which prevented Tonga to hold the meeting as planned.

IHO/SWPHC Technical Workshop on Implementing Hydrographic Governance

The 15th meeting of the Commission was preceded by a technical workshop on *Implementing Hydrographic Governance* sponsored by the IHO capacity building fund and delivered by representatives from the Primary Charting Authorities in the region, IHO Secretariat, International Association of Aids to Navigation and Lighthouse Authorities (IALA) and the Pacific Community (SPC). The workshop was intended to provide the representatives of the Pacific Island Countries and Territories (PICT) with elements to assist in the development and strengthening of hydrographic capacity to meet their international obligations under SOLAS and to support economic growth and protection of the marine environment. Nine presenters briefed the 29 participants to the workshop. Their presentations are available on the IHO website under the SWPHC page.



Next Meeting

Subject to final confirmation, the next meeting is scheduled in Niue, in February 2019. The Commission re-elected Commodore Fiona Freeman (Australia) and Lieutenant-Commander LCDR Saula Tuilevuka (Fiji) to continue as its Chair and Vice-Chair.



5TH SESSION OF THE IMO SUB-COMMITTEE ON NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE

London, United Kingdom, 19 – 23 February

The Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) is a subordinate body of the Maritime Safety Committee (MSC) of the International Maritime Organization (IMO). The 5th session of the Sub-Committee (NCSR 5) was held at the IMO Headquarters in London, United Kingdom from 19 to 23 February 2018. The IHO was represented by Assistant Directors David Wyatt and Anthony Pharaoh, Mr Peter Doherty, the Chair of the World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC), and Mr Christopher Janus, Branch Chief, NGA Maritime Watch - NAVAREA IV/XII. Several representatives of Hydrographic Offices also attended the meeting as a member of their national delegation.

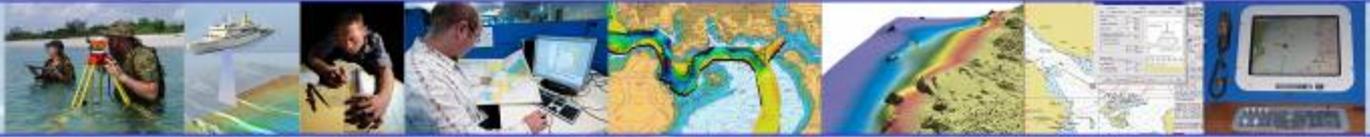
The IHO Secretariat reported on ECDIS issues, including comments on the outcomes of the withdrawal of Edition 3.4 of the ECDIS Presentation Library and the associated IHO ECDIS Check Dataset.

NCSR 5 approved four routing measures, two areas to be avoided and one ship reporting system, which will be forwarded to the MSC for adoption at its 99th session (MSC 99) in May 2018. The Sub-Committee received reports from the Chair of the IMO NAVTEX Panel and the Chair of the IHO WWNWS-SC reported on the activities of the sub-committee.



IMO NCSR 5 Plenary in session

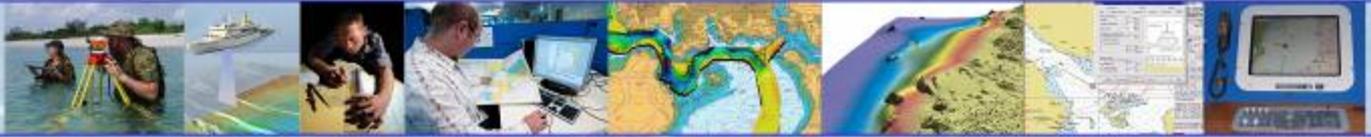
With respect to navigation matters, the NCSR 5 approved the next meeting of the IMO/IHO HGDM under revised terms of reference and the establishment of a Correspondence Group to progress the development of *Guidelines on standardized modes of operation, S-Mode*. The Sub-Committee also endorsed the draft *Interim Guidelines for the harmonized display of navigation information received via communications equipment* and the draft *Guidance on the definition and harmonization of the format and structure of maritime services within the Maritime Service Portfolio (MSP)*. In addition the NCSR 5 invited domain coordinating bodies to submit the description of maritime services under their remit to HGDM 2.



In regard to Communications and Global Maritime Distress and Safety System (GMDSS) matters, the Sub-Committee approved the establishment of a Correspondence Group on the modernization of the GMDSS, taking into account the progress on the revision of SOLAS chapters III and IV and on the related and consequential amendments to existing instruments other than SOLAS. The NCSR 5 approved the terms of reference for the 14th meeting of the IMO/ITU Experts Group and the draft IMO position on relevant WRC-19 agenda items. The Sub-Committee approved the draft MSC resolution on the *Statement of Recognition of Maritime Satellite Services by the Inmarsat Global Ltd.*, and for it to be forwarded to the MSC for adoption.

The Sub-Committee invited the WWNWS-SC and the WWMIWS Committee to prepare draft revisions to the relevant MSI documentation to reflect the announced migration of the recognized GMDSS services from the Inmarsat-3 to Inmarsat-4 satellites during 2018 and submit them to the next meeting of the Sub-Committee for approval. NCSR 5 also requested Member States and relevant Organizations to bring the information to the attention of certified SafetyNET users, MSI providers and MRCC operators in their respective countries through the promulgation of Notice to Mariners and any other appropriate media.

Mr Ringo Lakeman, Netherlands, and Mr Nigel Clifford, New Zealand, were re-elected as Chair and Vice-Chair, respectively, of the Sub-Committee for its sixth session (NCSR 6) scheduled to be held at the IMO Headquarters from 21 to 25 January 2019. The full report of NCSR 5 (NCSR 5/23) will be available on the IMODOCS website (<https://webaccounts.imo.org/>) when issued.



7TH MEETING OF THE IHO-EU NETWORK WORKING GROUP Saint-Mandé, France, 06-07 February

Contribution to the IHO Work Programme 2018	
Task 1.1.4	Attendance 7th IENWG

The IHO-EU Network Working Group (IENWG), established by the Inter-Regional Coordination Committee (IRCC) to monitor and deal with the activities and processes developed under the aegis of the European Union (EU), held its seventh meeting in Saint-Mandé, France, on 6 and 7 February 2018, at the invitation of the French Hydrographic Office (Shom).

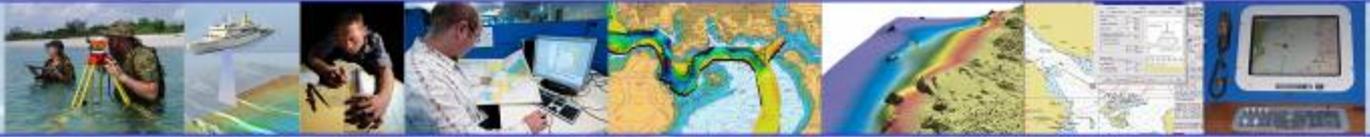
The meeting was chaired by Laurent Louvart (France) and attended by representatives from the following Regional Hydrographic Commissions:

- Baltic Sea Hydrographic Commission (Sweden),
- Eastern Atlantic Hydrographic Commission (France),
- Meso American - Caribbean Sea Hydrographic Commission (France),
- Nordic Hydrographic Commission (Norway),
- South Africa and Islands Hydrographic Commission (France),
- South West Pacific Hydrographic Commission (France).
- North Sea Hydrographic Commission (Germany)

Apologies had been received from Denmark, representing the Arctic Regional Hydrographic Commission and Greece representing the Mediterranean and Black Sea Hydrographic Commission. Representatives from the Italian Hydrographic Office and a representative from Ireland participated, both as Associate Members. Director Abri Kampfer represented the Secretariat of the IHO.



Participants to the 7th IENWG meeting



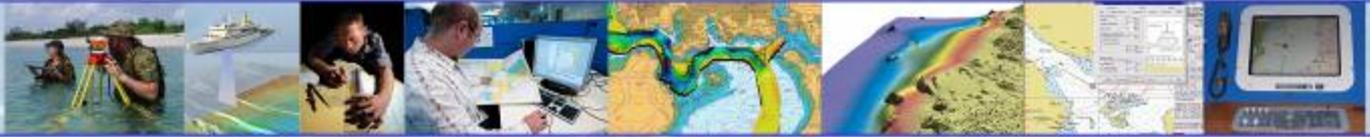
The main objective of the meeting was to finalize the IENWG plenary session programme planned on 27 and 28 February in Brussels. The programme will include feedback on the progress with the European Maritime Spatial Planning directive as an outcome of participation in the Expert Group of States. The deadline for the establishment of Maritime Spatial Plans (MSP) is 2021. Member States are in different stages of their MSP development processes, using different methodologies and tools. Although Hydrographic Offices (HOs) are potentially key players for MSP due to their experience of using many reference data, some are not involved in their national organisation for MSP. IENWG took an action of promoting the role of HOs for MSP and noting a strategy to improve participation will need to be determined.

Progress of the Coastal Mapping Project, funded by the European Commission in support of the development of the European Marine Observation and Data Network (EMODnet) and in particular phase III of the component of EMODnet, was discussed. Discussion will also be required on ways to collaborate with the IHO-IOC/GEBCO Seabed 2030 Project. The meeting also considered the possible development of a European Strategy for High Resolution Coastal Bathymetric Data Acquisition Programmes.

There is an expectation that 14 countries will be represented at the plenary, namely Belgium, Croatia, Denmark, France, Germany, Greece, Ireland, Italy, Latvia, Netherlands, Norway, Portugal, Spain and Sweden. An important anticipated outcome of the plenary will be that Hydrographic Offices should be identified by the Offices of the European Commission as a major network representing significant elements for coastal knowledge and associated policies.

France was re-elected to chair the IENWG. The meeting shared the concern of irregular attendance and participation in work by correspondence from some members.

The IENWG Plenary session will be held in Brussels, Belgium, from 27 to 28 February 2018.



NEW HYDROGRAPHER OF CANADA

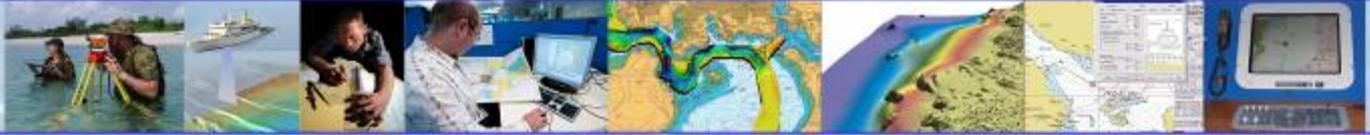


On February 21, 2018, **Dr. Geneviève Béchard** will be joining the Department as Director General, Canadian Hydrographic Service.

With close to 30 years of experience in the federal public service, Geneviève is coming to the Department with extensive experience in leading national program development and implementation in science & technology organizations.

She spent much of her career at Natural Resources Canada where she held positions with increasing responsibility including Director of Applications Division in the Canada Center for Remote Sensing, Director of Programs and Planning and Operations, and Director of Central Canada Division - Geological Survey of Canada. Since 2012, she has been Director General of Monitoring and Data Services at the Meteorological Service of Canada, Environment and Climate Change Canada. In this role, she has ensured delivery of continuous weather, water quantity and climate data services to Canada.

Geneviève holds a Ph.D. in Biology from Carleton University, as well as a Master and a Bachelor of Science in Applied Microbiology.



NEW HYDROGRAPHER OF PAKISTAN

1. SERVICE HISTORY

Captain Muhammad Khalid PN has joined Pakistan Navy in 1990 and Hydrographic service in 1998. During the 27 years of service, has served at distinguished Naval & Hydrographic appointments. Major appointments are as follows:



At Present: Hydrographer Pakistan Navy

- **2015-17** Commanding Officer Hydrographic cum Oceanographic Vessel BEHR PAIMA
- **2014-15** Commanding Officer Trailing Suction Hopper Dredger BEHR KUSHA
- **2014** Second-In-Command Hydrographic cum Oceanographic Vessel BEHR PAIMA
- **2013** Staff Officer (Operations) of Auxiliary Squadron comprising Hydrographic cum Oceanographic ship and Dredging Vessel
- **2010** Senior Surveying Officer of Hydrographic cum Oceanographic ship – responsible for planning all hydrographic / oceanographic surveys, their execution, data processing / product preparation and cruise / survey reports
- **2007-2009** Staff Officer (Hydrography and Oceanography) at National Hydrographic Office – Responsible for overall prioritization, Issuance of relevant instructions, management of national hydrographic and naval oceanographic surveys
- **2005-2006** Staff Officer (Hydrography) at Naval Headquarters, (NHQ) – Responsible for processing hydrographic and oceanographic related cases with at NHQs
- **1998-2004** Survey Officer onboard Hydrographic cum Oceanographic ship – Remained involved at field level hydrographic and physical oceanographic surveys

2. PROFESSIONAL QUALIFICATION

- MS Physical Oceanography from Naval post Graduate School, Monterey – USA
- Post Graduate Diploma hydrographic Surveying from Plymouth university – UK
- Advance Hydrographic Survey Course (Cat A) – UK
- Basic Hydrographic Survey Course (Cat B) – IMA Italy
- Attended EEZ protection Course from HMS Collingwood – UK
- On Job Training with Turkish Hydrographic, Oceanographic and Navigation Department – Istanbul Turkey