



MACHC23

IHO Secretariat Report

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IHO Director





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IHO MEMBERSHIP & REGIONAL APPLICATION FOR IHO MEMBERSHIP

International
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- Since MACHC22, **Iraq**, **Angola** and **Albania** acceded to the IHO Convention IHO
- Membership now stands at 98
- Serbia and Syria remain suspended

IHO Membership



Recommendation - MACHC is invited to encourage and propose to the IHO Secretariat High Level Visits to those States not yet IHO Member States.



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OUTCOMES OF THE 6TH MEETING OF THE IHO COUNCIL

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- IHO Work Programme and Budget for 2023 and the **three-year Work Programme and Budget 2024–2026**
- **Goal 1** and its Targets in the IHO Strategic Plan should have the **highest priority in the 2023–2026 Work Programme**
- To develop **guidelines for the automated production of paper charts** meeting S-4 chart minimum content requirements from S-101 ENC data
- The Council approved **version 1.0 of the Guidelines** on the Implementation of the **WEND-100 Principles**

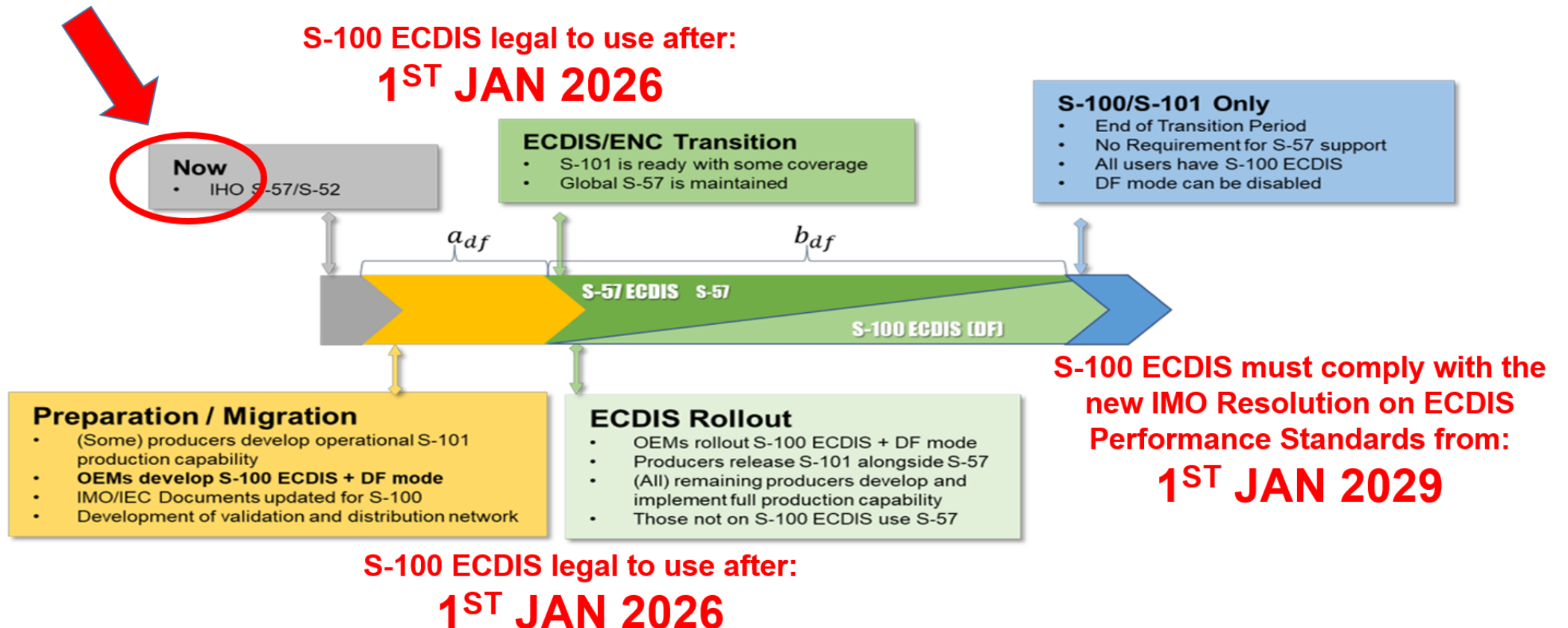


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OUTCOMES OF THE 6TH MEETING OF THE IHO COUNCIL

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- From IMO NCSR and MSC last meetings, transition period for S-100 ECDIS to become legal to use **after 1 January 2026** and systems must comply from 1 January 2029: the Council endorsed the Dual Fuel Concept for S-100 ECDIS Executive Summary:





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OUTCOMES OF THE 6TH MEETING OF THE IHO COUNCIL

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- IHO CL 43/2022Rev1 provides the resultant distribution of the **20 seats on the Council allocated to the RHCs** the Secretariat will use the table of tonnages (2021-2023) to determine the remaining 10 seats
- Council endorsed IRCC proposals for **measuring the SPIs.**
- Particular attention to **SPI 1.2.2 - Percentage of navigationally significant areas for which the adequacy of hydrographic knowledge is assessed through the use of appropriate quality indicators (CATZOC)** assigned by the Member States.



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OUTCOMES OF THE 6TH MEETING OF THE IHO COUNCIL

SPI 1.2.2 - MACHC

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MACHC - B										
% Surface	UB	CATZOC								UB
		1-A1	2-A2	3-B	4-C	5-D	6-U	Total	N/A	
CATZOC / ENC November 2022	3	5.7%	0.3%	16.5%	53.7%	19.7%	1.4%	97.3%	2.7%	3
	4	15.0%	1.8%	33.8%	29.4%	17.4%	1.3%	98.7%	1.3%	4
	5	20.8%	5.0%	43.4%	14.5%	10.3%	1.8%	95.8%	4.2%	5
Total		7.1%	0.5%	19.0%	50.2%	19.3%	1.4%	97.5%	2.5%	
SPI 1.2.2		96.1%								

SPI 1.2.2 : Percentage of navigationally significant areas (e.g. charted traffic separation schemes, anchorages and channels) for which the adequacy of the hydrographic knowledge is assessed through the use of appropriate quality indicators.

(CL23/2022)

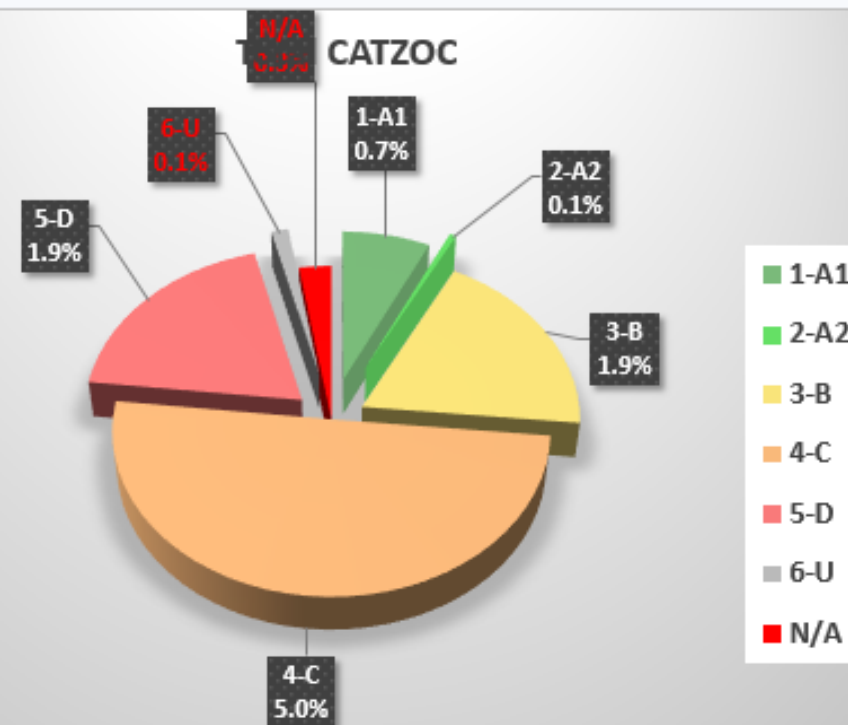
SPI 1.2.2 Region B

Sources :
ICENC & PRIMAR files
November 2022



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OUTCOMES OF THE 6TH MEETING OF THE IHO COUNCIL

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Recommendations: MACHC is invited to:

- *Continue on the implementation of the IHO Strategic Plan and **support IRCC in identifying measures and values to measure those SPI of regional interest allocated to IRCC**, and to consider providing their **CATZOC values** - through the RENCs - to support the IHO Secretariat in the process of **measuring SPI 1.2.2***
- *Note the updated version 2.0 of the S-100 Implementation Roadmap, and the version 1.0 of the Guidelines on the Implementation of the WEND-100 Principles, **with particular attention to the creation of a new role of S-100 Services Coordinator or the expansion of the role of Regional Chart Coordinator to include S-1xx products***
- *To declare **the State/s selected to the Council** seats allocated on a regional basis*



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PREPARATION OF THE 3RD SESSION OF IHO ASSEMBLY

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	Monday 1 May	all day	Registration of delegates
		PM	Meeting of the Finance Committee (Auditorium) and Meeting of Heads of Delegation (IHO Secretariat)
Day 1	Tuesday 2 May	AM	Opening Ceremony Opening of the Hydrographic Industry and the Member States Exhibitions Official Photo
		PM	Report of Council Chair Report of Secretary-General Work Programme 1: Proposals and Topical Issues
Day 2	Wednesday 3 May	AM	Work Programme 1: Proposals and Topical Issues (Continued)
		PM	Work Programme 2: Proposals and Topical Issues
Day 3	Thursday 4 May	AM	Work Programme 3: Reports of RHC Chairs, Proposals and Topical Issues
		PM	Thematic session: future challenges for hydrography in the Ocean Decade
Day 4	Friday 5 May	AM	Election for the positions of IHO Secretary-General and Director Hydrographic Industry and Member States Exhibitions close
			Closing Ceremony

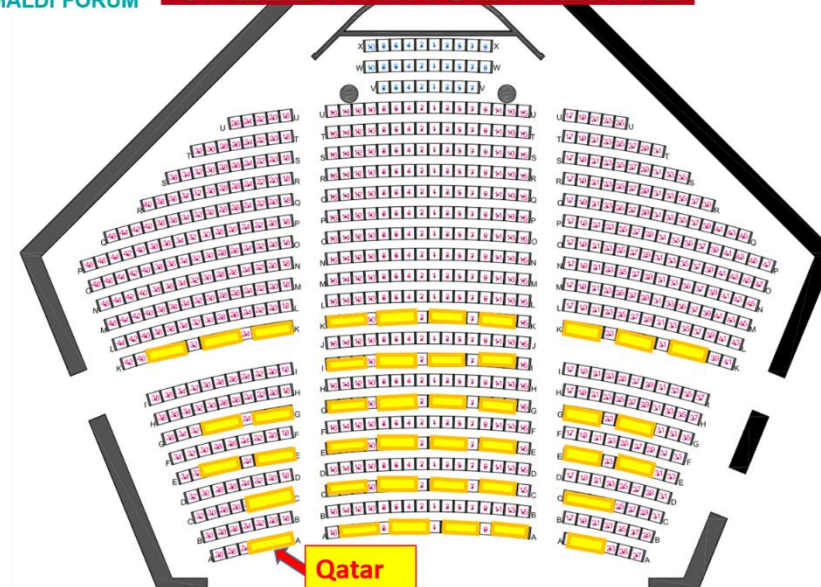
NEW DATES AND VENUE

- Date: 2 - 5 May 2023
- Venue: Grimaldi Forum, Monaco



GRIMALDI FORUM

SALLE PRINCE PIERRE



6th IHO Council - Monaco - 18 - 20 October 2022

11/11/2022



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PREPARATION OF THE 3RD SESSION OF IHO ASSEMBLY

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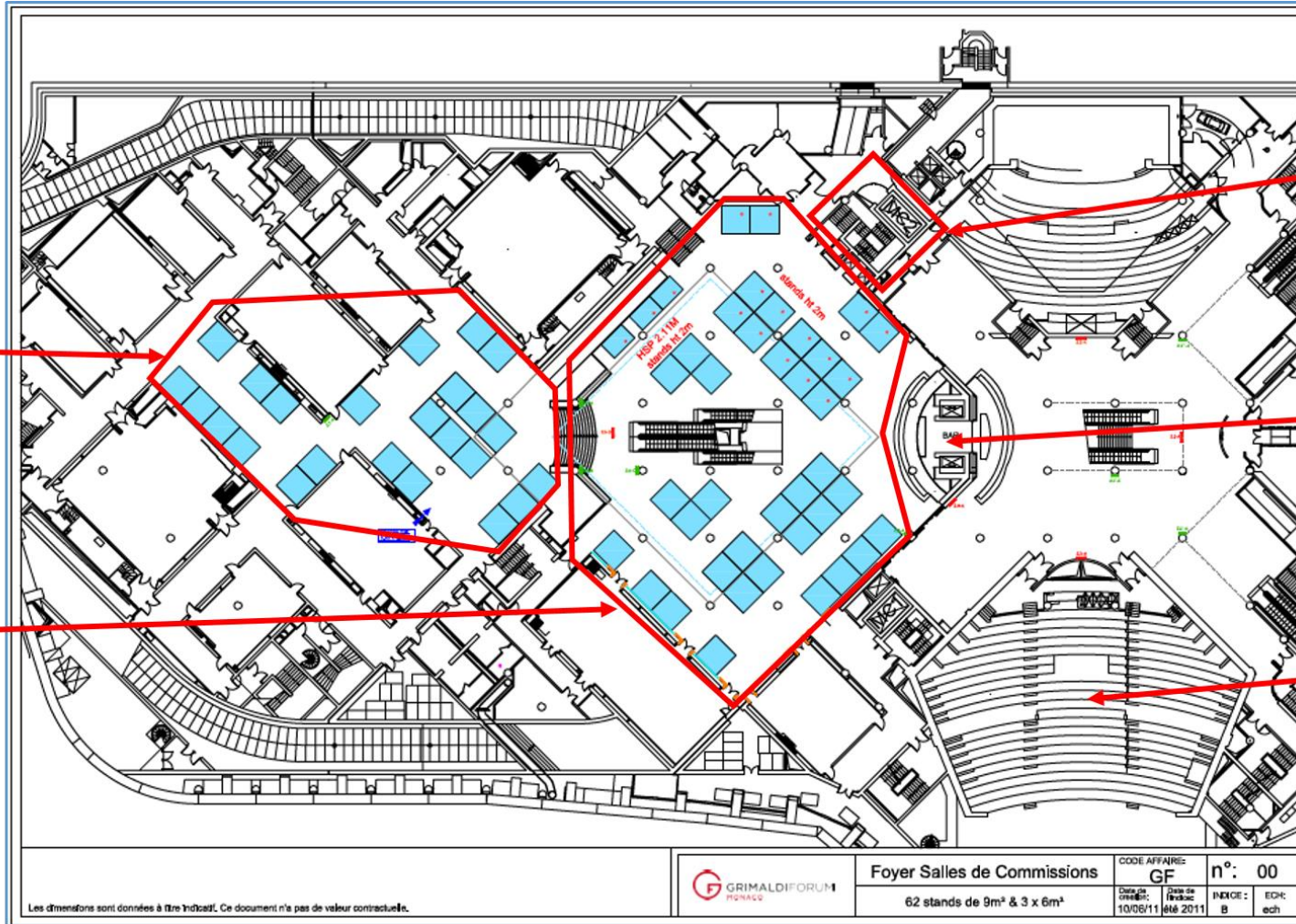
Member State
Exhibition

Industry
Exhibition

Secretariat
Offices

Bar – Catering

Auditorium



11/11/2022

Recommendation: MACHC members are encouraged to register on line their delegations and submit proposals if any by 20 December 2022.



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CAPACITY BUILDING PROGRAMME

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- The 2021-2022CBWP funded activities not executed in 2021-2022 can be moved to the 2022-2023CBWP
 - The CB finance situation will be more difficult in 2023 with the expected reduction of the non-earmarked funds
 - MACHC has nr.7 funded CB project in 2022CBWP:
 - 2022: A-05 Technical Visit to Belize
 - 2022: A-11 Technical Visit to Honduras (from 2021 A-03)
 - A-13 High Level Technical Visit to Dominican Republic (from 2021 A-06)
 - A-14 High Level Technical Visit to Jamaica (from 2021 A-07)
 - P-09 MSI (training on establishment of MSI structure and basic MSI procedure)
 - **P-39 Seminar on Raising Awareness of Hydrography (from 2021 P-17)**
 - P-45 Tides Workshop for Spanish Speakers (former 2020 P11 and 2021 P-33)
- and nr.1 already funded CB project in the 2023CBWP:
- A-05 Technical Visit to Costa Rica



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CAPACITY BUILDING PROGRAMME - COURSES

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- 2 students for 2022/2023 Master of Science Programme in Hydrographic Science at the University of Southern Mississippi (USA), sponsored by the Republic of Korea.
- 14 students for the 13th and 14th GEOMAC courses in Cartography Cat B (see IHO CL 19/2022) sponsored by Nippon Foundation
- 10 students for 2022 Cat B Hydrographic Survey Programme sponsored by the Republic of Korea
- For 2023/2024, the Master of Science Programme in Hydrographic Science at the University of Southern Mississippi (USA), sponsored by the Republic of Korea, was announced with IHO CL 34/2022



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EMPOWERING WOMEN IN HYDROGRAPHY (EWH) PROJECT

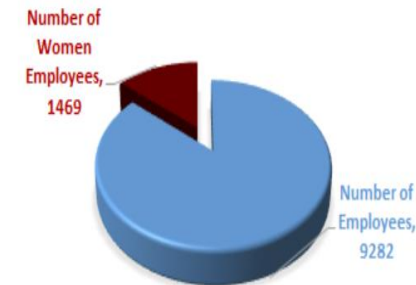
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- IHO CL 26/2022: survey to determine the percentage of female employees in Hydrographic Offices and in leadership roles (Questionnaire - the deadline has been extended till 30 November 2022)

With Letter IOC/VR/22.377/JB/AC/mb dated 9 September 2022, IOC endorsed the project entitled “**No. 62.2 - Empowering Women in Hydrography**” as a **project forming part of the UN Decade of Ocean Science for Sustainable Development 2021-2030.**

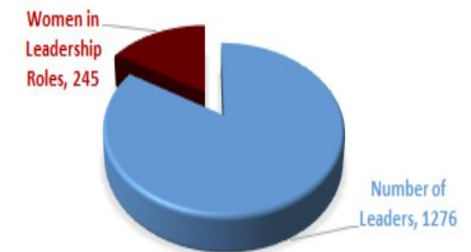
TOTAL NUMBER OF EMPLOYEES VS TOTAL
NUMBER OF WOMEN EMPLOYEES

38 Responses received to CL26/2022



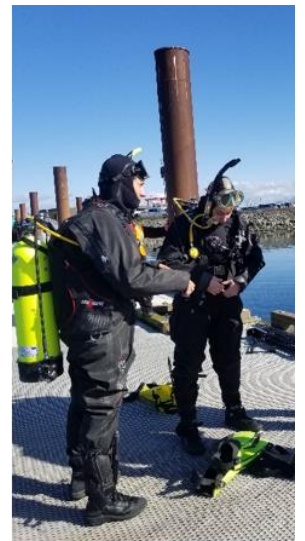
NUMBER OF LEADERS VS WOMEN IN
LEADERSHIP ROLES

38 Responses received to CL26/2022



Fisheries and Oceans
Canada

Pêches et Océans
Canada





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CAPACITY BUILDING PROGRAMME - COURSES

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Recommendations: MACHC is invited to:

- Continue follow and evaluate the possibility to ***contribute to the CB Programme***
- ***Participate at the EWH project*** and provide proposals via the specific webpage (<https://iho.int/en/basic-cb-sc-ewh>) set up under the Capacity Building Sub-Committee (CBSC) for this project, and answer to the Questionnaire issued with IHO CL 26/2022 (the deadline was extended till 30 November 2022)
- ***Provide contributions*** of online learning material ***to*** the Project Team established for ***the IHO e-Learning Center***.



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MARITIME SAFETY INFORMATION SERVICES

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Recommendations: MACHC is invited to:

- Encourage all information providers (NAV and MET Area Coordinators and RCCs) ***to complete agreements with all RMSS and commence the necessary testing of the SafetyCast system*** to progress towards declaring full operational status
- ***Establish and maintain effective communications with the relevant NAV and MET Area Coordinators*** to ensure the timely provision of MSI
- ***Use and follow the guidance provided in S-53 – Joint IMO/IHO/WMO Manual on Maritime Safety Information*** – to ensure the necessary facilities and capabilities are provided and maintained for the gathering and communication of MSI within their area of national responsibility.

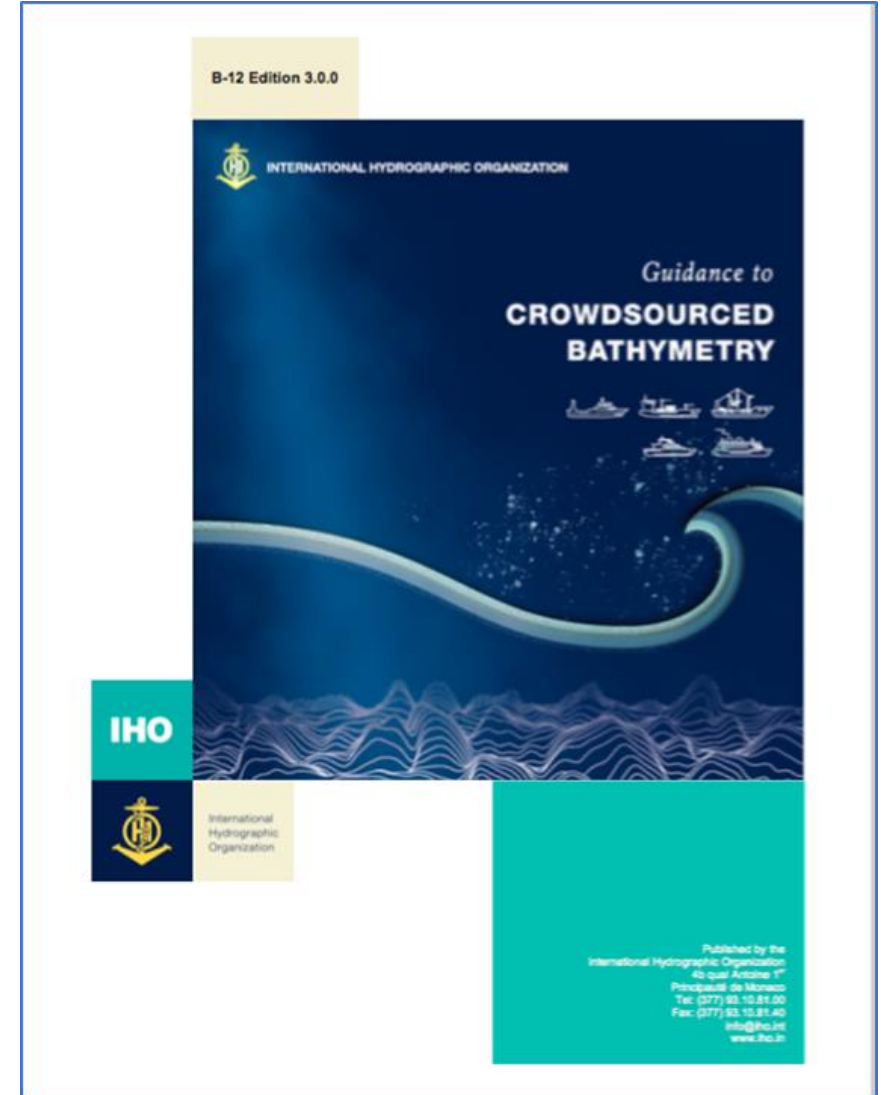


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CROWDSOURCED BATHYMETRY - GEBCO - SEABED 2030

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- With IHO CL 41/2022 ***new Edition 3.0.0 of B-12 was approved*** by 37 Member States. Updates include: incorporating feedback from operational use and experience, making the document more "equipment agnostic", simplifying the document and making it more accessible to ALL readers (data collectors, providers and users)





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CROWDSOURCED BATHYMETRY - GEBCO - SEABED 2030

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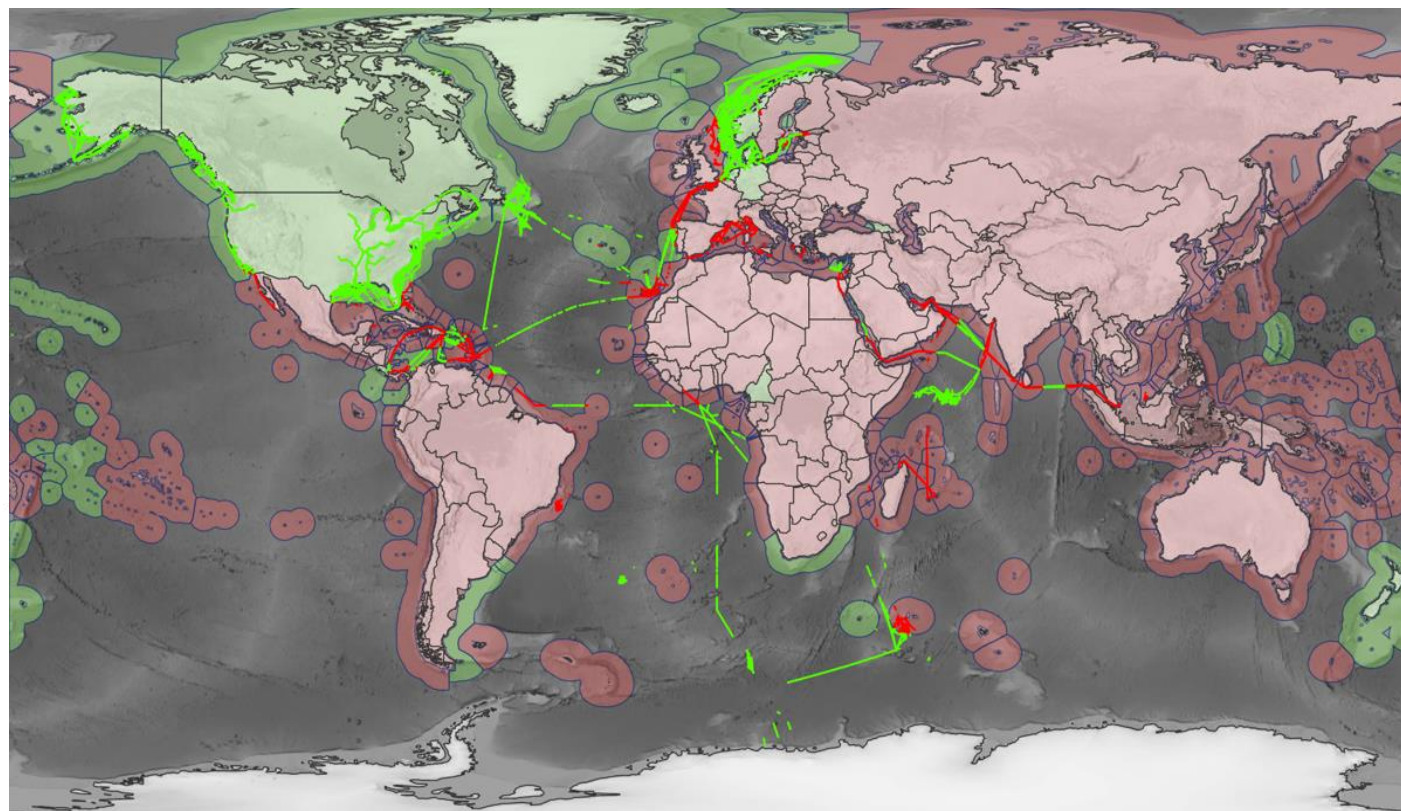
- The Circular Letters (IHO CL 21/2020 and IRCC CL 1/2020) received 32 replies

MACHC IHO Member States:

Brazil, Colombia, Cuba, Dominican Republic, France, Guatemala, Guyana, Jamaica, Mexico, Netherlands, Suriname, Trinidad and Tobago, United Kingdom, United States of America, Venezuela.



Green = Positive Response
Red = Negative Response, No Response



The IHO encourages coastal states to review the circular letters and, if possible, offer a positive response to the IHO Secretariat.

iho.int/uploads/user/circular_letters/eng_2020/CL21_2020_EN_v1.pdf

iho.int/uploads/user/Inter-Regional%20Coordination/IRCC/IRCC_Letters/IRCC_Letter_2020_01_CSB_Activities.pdf



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CROWDSOURCED BATHYMETRY - GEBCO - SEABED 2030

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- Thanks to the support of CSBWG, GEBCO and Nippon Foundation Seabed2030 project, the IHO Secretariat also promoted CSB through three sailing boats departed from Monaco and France for expeditions to and from the Antarctica in late 2021/early 2022.
- In July 2022 signed a ***Letter of Cooperation with the Yacht Club of Monaco to engage the world of yachting (yachts and mega yachts) in the CSB***





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CROWDSOURCED BATHYMETRY - GEBCO - SEABED 2030

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- It was decided to review the GEBCO Governance and write a GEBCO Strategy aligned with with the IHO Strategic Plan (2021-2026) and the IOC Medium Term Strategy (2022-2029)
- With IHO CL 10/2022 the IHO advised Member States on the 19th course of the IHO-IOC-Nippon Foundation/GEBCO Training Program leading to a Graduate Certificate in Ocean Bathymetry at the University of New Hampshire (UNH), USA (the 19th course began in late August 2022)
- A new GEBCO Sub-Committee on Education and Training (SCET) was established in 2022 and it is now operational

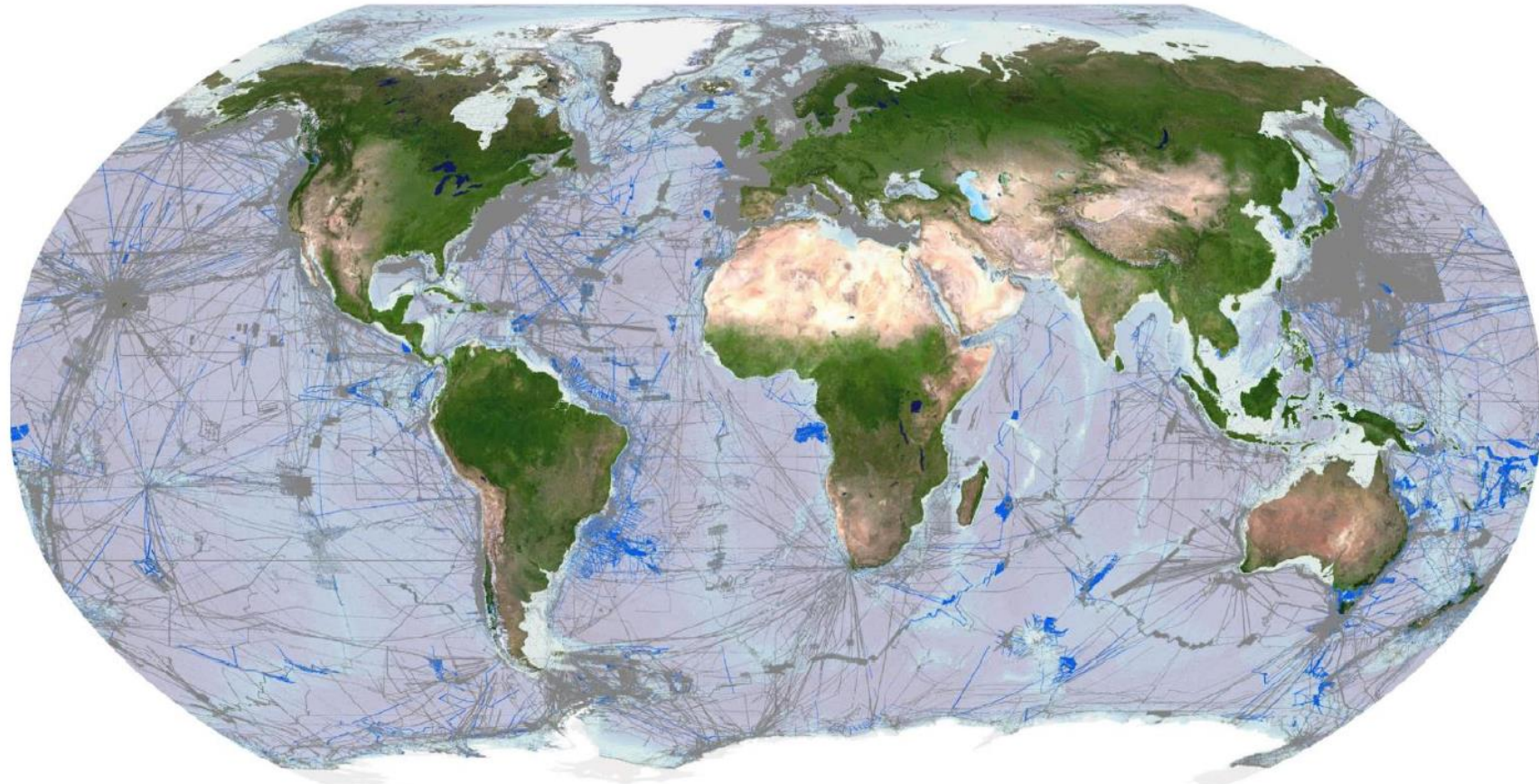


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CROWDSOURCED BATHYMETRY - GEBCO - SEABED 2030

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- Nippon Foundation
GEBCO-Seabed
2030 project was
endorsed as an
**Action of UN
Decade of Ocean
Science for
Sustainable
Development**
- Global mapping
coverage now
stands at **23.4%**
(June 2022)



GEBCO Grid 2022 (blue) v 2021 (dark grey) coverage comparison



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CROWDSOURCED BATHYMETRY - GEBCO - SEABED 2030

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Recommendations: MACHC is invited to:

- Consider the impacts of the increasing global societal and United Nations (UN) driven need ***to complete the picture of the seafloor*** as well as the potential benefits to individual coastal States
- ***Make data freely available for inclusion in the DCDB*** and the widest possible use, ***in accordance with IHO Resolution 1/2017***
- ***Nominate the CSB-GEBCO-Seabed 2030 Regional Coordinator***
- Consider to review national legislation to ***remove barriers restricting CSB activities within their waters***

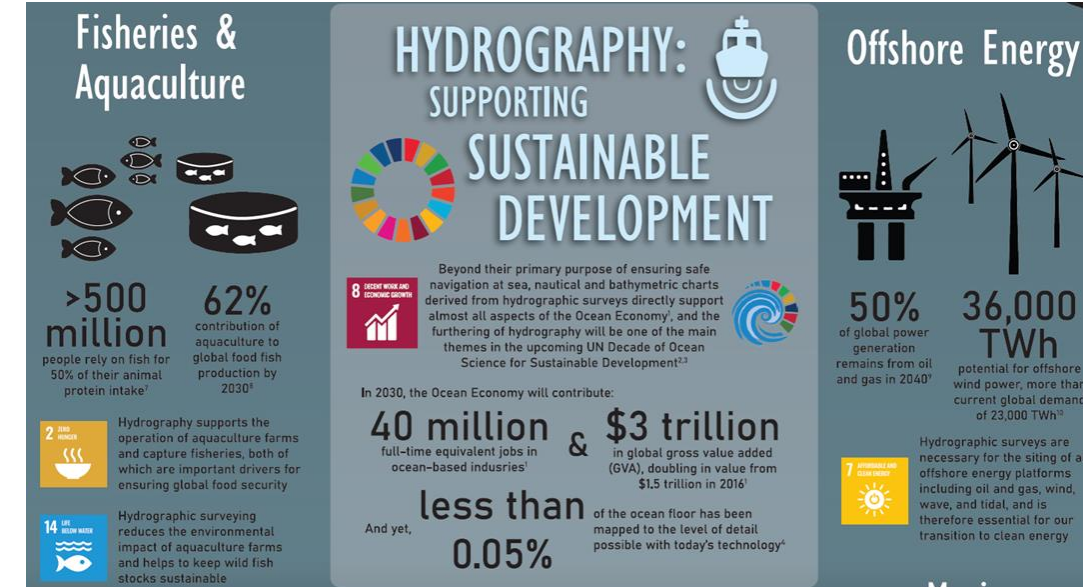


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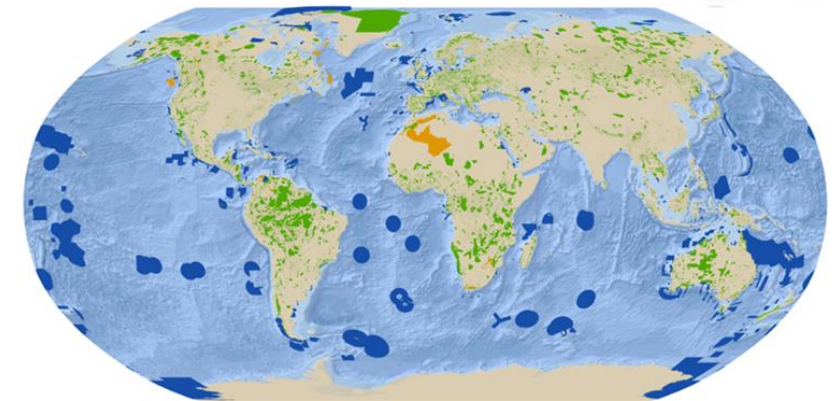
IHO AND UNITED NATIONS DECADE OF OCEANS FOR SUSTAINABLE DEVELOPMENT

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- **Depth** to be added to the list of **Essential Ocean Variables (EOVs)**
- For the “Global Ocean Alliance” to protect 30% of the world’s land mass (land and ocean) by 2030, **SP-122 – Marine Protected Areas** will play a role in supporting the sustainable use of such areas
- **IHO to be the key point of contact for seabed mapping and hydrography** in the Organization for Economic Co-operation (OECD) in the report “the Ocean Economy in 2045”



Protected areas and OECMs of the world



Source: UNEP-WCMC and IUCN (2022). Protected Planet: The World Database on Protected Areas (WDPA) and World Database on Other Effective Area-Based Conservation Measures (WD-OECM) [On-line].



Terrestrial protected areas Marine and coastal protected areas OECMs





IHO IHO GIS AND DATABASES

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- Yearbook (P-5) and Status of Hydrographic Surveying and Charting Worldwide (C-55) are regularly updated
- The IHO Online Form system has been used since March 2019
- An Esri-based GIS solution has been implemented for the efficient visualization of geospatial data stored in the Country Information System

Country	P-5 –Yearbook Last update received	C-55 Last update received
Brazil	March 2022	June 2022
Colombia	October 2022	August 2021
Cuba	August 2020	December 2016
Dominican Republic	January 2021	-
France	January 2022	August 2022
Guatemala	August 2022	December 2019
Guyana	November 2021	January 2022
Jamaica	February 2021	January 2022
Mexico	October 2021	November 2012
Netherlands	September 2022	October 2022
Suriname	September 2019	January 2022
Trinidad and Tobago	September 2019	January 2022
United Kingdom	July 2022	August 2022
United States of America	June 2022	December 2018
Venezuela	September 2022	November 2021
Antigua and Barbuda	-	January 2022
Barbados	November 2019	January 2022
Belize	-	January 2022
Costa Rica	March 2020	-
El Salvador	April 2017	December 2016
Grenada	-	January 2022
Haiti	June 2017	December 2016
Honduras	-	November 2005
Nicaragua	April 2017	-
Panama	September 2017	January 2022
Saint Lucia	-	January 2022
St Kitts and Nevis	December 2020	January 2022
St. Vincent and the Grenadines	-	March 2021

Recommendation - MACHC is invited to *review their entry in the IHO Yearbook P-5 and C-55* and to provide the IHO Secretariat with the appropriate updates or to report no change (CL 20/2019 refers)



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IHO OUTREACH

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- The theme for WHD 2022 is *“Hydrography - contributing to the United Nations Ocean Decade”*
- As announced with IHO CL 42/2022, the proposed theme for WHD 2023 is *“Hydrography - underpinning the digital twin of the ocean”*
- Through IHO CL 03/2022, since 5 January 2022, the IHR has a new editor Dr Patrick Westfeld from Germany; IHR volumes from the entire collections (1923 to 2018) are available online
<https://journals.lib.unb.ca/index.php/ihr>

Recommendation - MACHC Members are invited to *submit papers for publication in the IHR*



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ACTION REQUESTED OF MACHC

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- a) Note this report**
- b) Consider all the Recommendations proposed in this report**
- c) Review entries related to IHO C-55 and P-5 (Yearbook) annually**
- d) Consider submitting papers for publication in the International Hydrographic Review**
- e) Take any other actions as considered appropriate**

