

**46th Conference of the
US Canada Hydrographic Commission (USCHC)
Mobile (AL), USA, 16-17 March 2023**

Report

**IHO Secretariat's work, Council matters
and Work Programme items**

**Dr Mathias Jonas
Secretary-General**



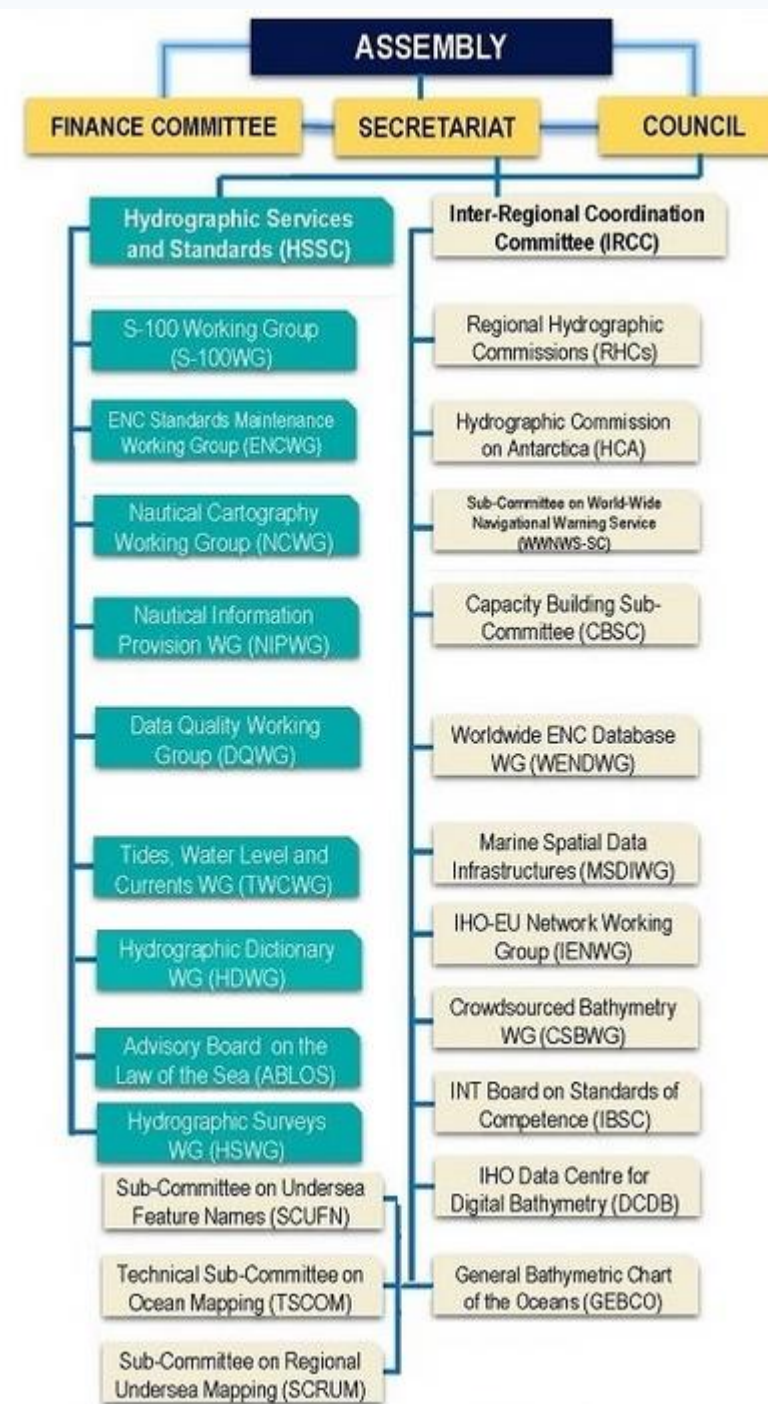
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US / Canada contribution to IHO and its Member States

US and Canada are well represented and acknowledged contributors to the vast majority of IHO Committees, Subcommittees, Working Groups and Project Teams!



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IHO Membership

- IHO membership stands at 98. Panama indicated the strong intention to accede.
- Unfortunately, Serbia and Syria remain suspended from Member States rights. Lebanon about to join the list.

Recommendation: USCHC is invited to further assist the Secretariat in promotion of membership to those States not yet IHO Member States with a focus to Meso American States.



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6th IHO Council (October 2022)

- The C-6 discussed, endorsed and finally forwarded 7 (out of 15) Proposals including the triennial Work Plan and budget estimates for 2024 – 2026.
- Council has become the main topical contributor to Assembly.
- *High appreciation to Dr. Geneviève Béchard for great term as Council Chair!*
- *Thanks to both USCHC members for proactive and relevant support on Council issues!*



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6th IHO Council (October 2022)

- Confirmed the Decision made at A-2 by which priority is to develop guidelines for the automated production of paper charts meeting S-4 chart minimum content requirements from S-101 ENC data.
- Approval of amendment to the S-100 Implementation Roadmap with the updated version 2.0 dated July 2022 and endorsed the Dual Fuel Concept for S-100 ECDIS.
- C-6 propose that Goal 1 and its targets in the IHO Strategic Plan should have the highest priority in the 2023–2026 Work Programme.



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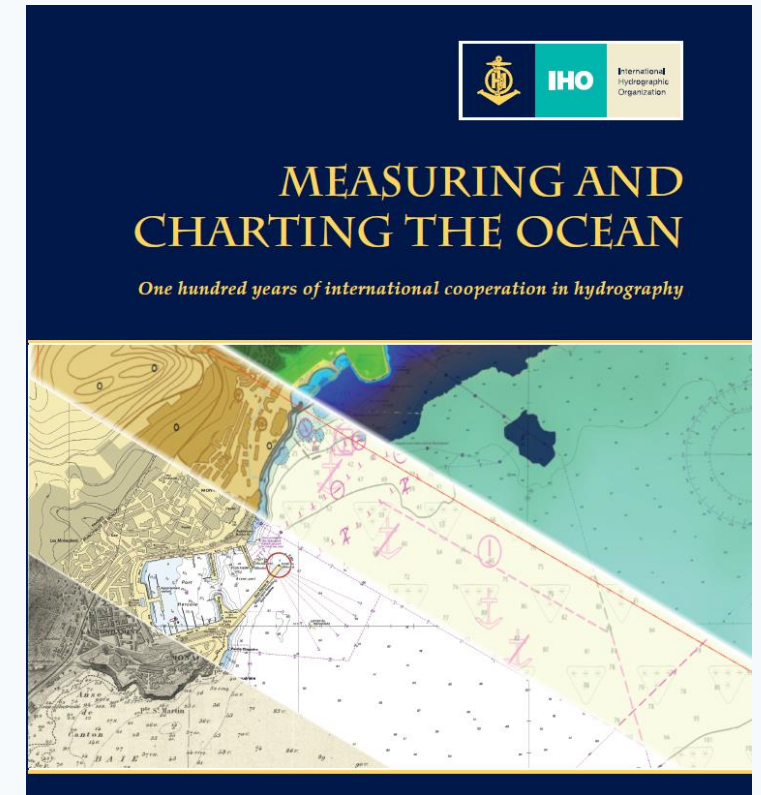
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IHO's Strategic goals as core of the Work Programme 2020 - 2026

Goal 1: Evolving the hydrographic support for safety and efficiency of maritime navigation, undergoing profound transformation.

Goal 2: Increasing the use of hydrographic data for the benefit of society.

Goal 3: Participating actively in international initiatives related to the knowledge and the sustainable use of the Ocean.



Most relevant themes related to Goal 1: support for safety and efficiency of maritime navigation

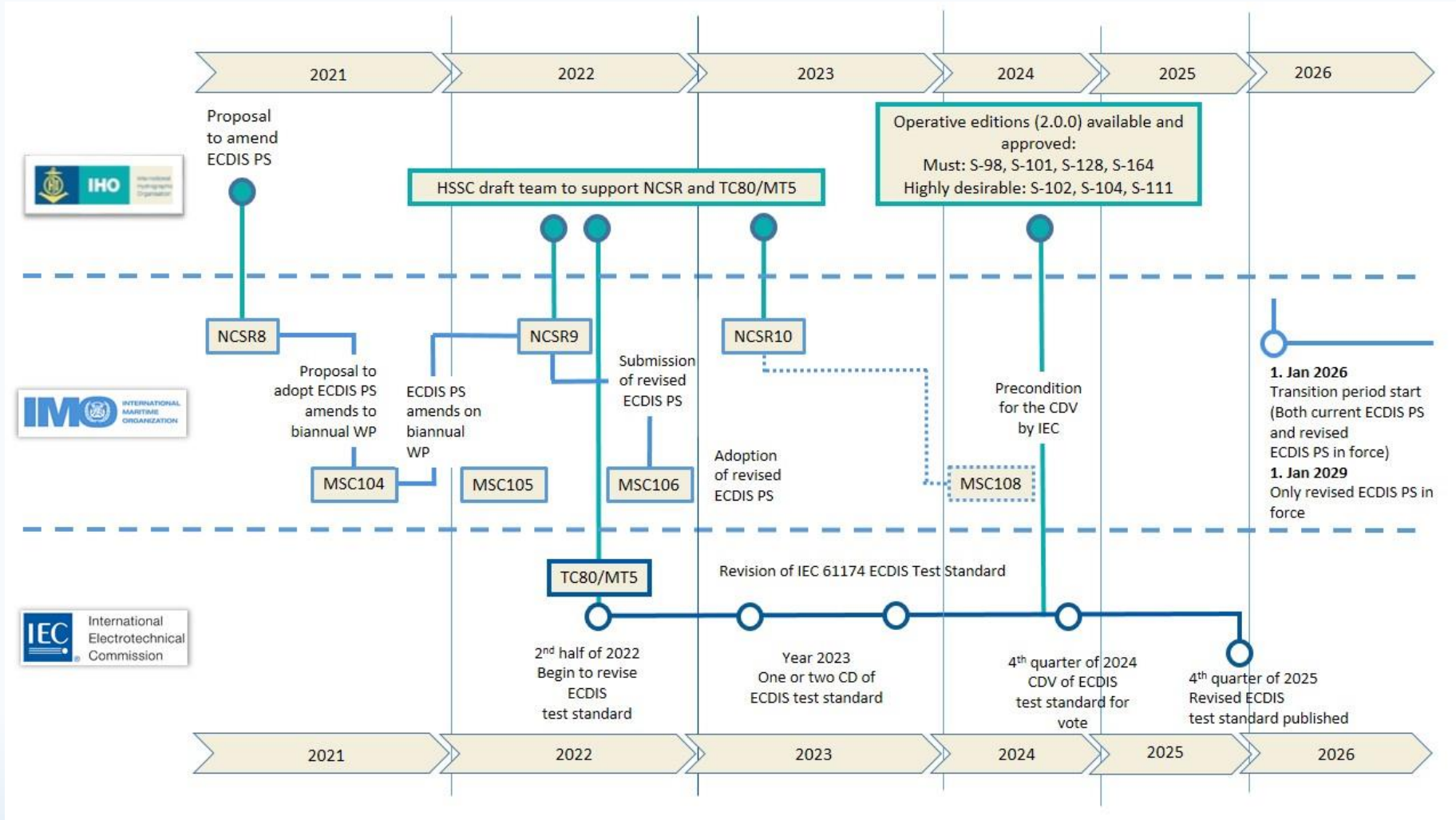
- Revision of MSC.232(82) - ECDIS Performance Standards
- Future production of S-101 ENCs in conjunction with S-57 maintenance/production
- Future production and provision of amending S-1xx products.
- Future provision of paper charts.



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The road to S-100 ECDIS – IHO's commitment to deliver



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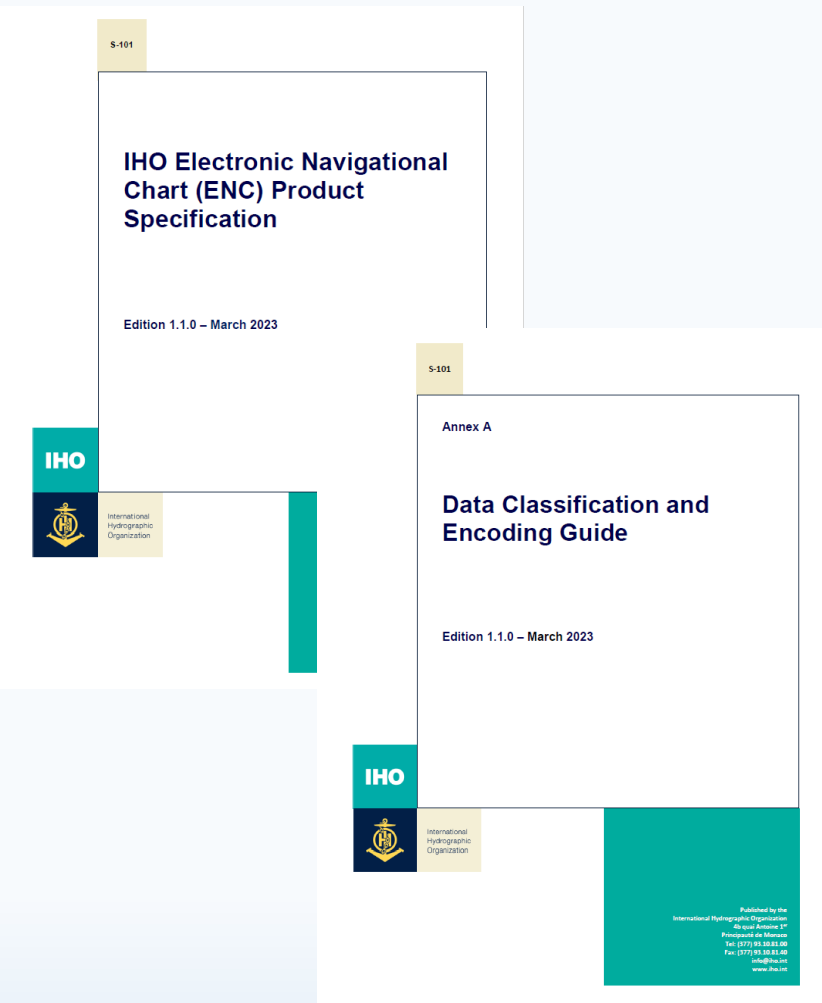
The S-100 eco-system is taking shape

Significant progress in all areas of S-101 development.

- S-101 Portrayal,
 - Data Validation Checks,
 - Dataset Load/Unload and Scales,
 - Test Dataset Development.
-
- S-101 Edition 1.1.0 Feature and Portrayal Catalogues to be commenced on approval of the S-101 Edition 1.1.0 Main document

Increased focus on critical elements:

- S-98 Interoperability
- S-128 Catalogue
- S-164 Test data set



Problems encountered

- Lack of nominations for office bearers for technical working groups & project teams
- Shortage of experts for IT-driven elements of IHO Work programme items
- Requirement for more (payed) contract support
- Regional coordination of S-100 based services in demonstrators and follow up regular services – take note of the report of the WENDWG chair.
- Member States fear of S-100 conversion
 - * Provision of multiple production lines
 - * Call for more capacity building for S-100



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Most relevant themes related to Goal 2: Increasing the use of hydrographic data

Observations:

- Uptake of blue economy along all coasts – fish farming, sea weed etc.
- Increased request for deep ocean bathymetry for exploitation, renewable energy production, cable, pipelines, **deep water warfare** etc.
- Private enterprises and digital philanthropists endeavored ocean bathymetry as an area to receive public attention and recognition.
- Revitalization of the GEBCO programme with SeaBed2030 project and **Map the Gaps** as a booster.
- Most recent decision of UN in favour of 30% MPA by 2030.



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Most relevant themes related to Goal 2: Increasing the use of hydrographic data

IHO's MSDI-Working Group: refocus on global datasets typical for IHO

UNGGIM:

- Focus on standardization in collaboration with ISO and OGC
- Marine Information Working Group
- Best practice: UK sponsoring model with World Bank to build up hydrographic Capacity



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GEBCO support by USCHC members

- USHC members are instrumental for the substantive quantitative and qualitative growth of the GEBCO grid over the last three years.
- A revision process for GEBCO governance has started recently.
- DCDB operations and functionalities have constantly improved.
- NOAA and the IHO look forward to update the DCDB hosting agreement in the margins of the upcoming Assembly.
- Further assistance is needed to unlock existing data so far not available for GEBCO/DCDB.



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Capacity Building Programme (1)

- The level of activity of the IHO Capacity Building (CB) Programme was clearly affected by the COVID 19 pandemic in 2020 and 2021 showing in 2022 a restart of the activities but having some that needed to carry on to 2023.
- The CB finance situation will be balanced in 2023 but demand is higher than resources. It remains very important to allocate additional resources and invest in the remote activities – e-Learning Center will enjoy enduring sponsorship by Republic of Korea.
- Two candidates were selected for 2022/2023 Master of Science Programme in Hydrographic Science at the University of Southern Mississippi (USA), sponsored by the Republic of Korea, continuation of the Programme 2023/2024 is secured.



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Capacity Building Programme (2)

- The A-2 approved the adoption of a new work item of Empowering Women in Hydrography (EWH) to the Work Programme of the IHO CBSC.
- CANADA and IHO signed an Agreement (<https://iho.int/en/mou-agreements>) which secures the funds for the period 2021-2024, and finally describes a series of activities and initiatives which will enable more women to participate equitably in the field of hydrography and to assume more leadership roles within the hydrographic community.
- workshop on “Gender balance & Empowering Leaders”
- submission for EWH project to become an UN Ocean Decade Action
- 1 internship on Outreach, 3 internships related with the review process of submitted IBSC programmes
- three opportunities for an at-sea experience on a NOAA hydrographic ship
- Launch of mentorship programme (12 mentors/mentees nominated)



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International Hydrographic Review (IHR)

- IHR will issue a jubilee edition to celebrate its centenary. A Paper version will be distributed at Assembly.
- Papers for consideration for publication in the IHR should be forwarded directly to the editor (ihr.review@iho.int, copy to ihr.editor@iho.int.com). The deadlines are:
 - End of January for the May Edition
 - End of July for the November Edition
- *USCHC Members are invited to submit papers for publication in the IHR.*



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Most relevant themes related to Goal 3: Participating actively in international ocean initiatives

- First active participation on UN Oceans Conference Lisbon
- Regional activities: Europe – collaboration with EMODNET, Digital Twin
- Collaboration with global ocean observation programs such as ARGO and Mercator Ocean

Observations:

- Oceans observation / modelling / forecast has entered the political agenda as being most relevant for the climate discussion
- Multitude of players – challenge to make IHO / hydrography visible
- Ocean mapping is accepted as base line information layer
- Tides, current, water level information is too less visible as hydrographic information
- S-100 is most relevant for digital twin but difficult to establish in the oceanographer's domain
- IHO member states invited to consider how more can be done beyond ocean mapping and standardized data model (S-100) in support of the Ocean Decade



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Forthcoming 3rd IHO Assembly 2023 and the new Council (C-7 to C-9) after

- The forthcoming third IHO Assembly is scheduled as in person event to 2-5 May 2023.
- *Because of the pandemic pause and generation change Assembly will be a completely new experience for many delegation members*
- *Discussions are expected for all together fifteen Proposals*
- *Thematic session as a new element*
- *US to dispatch a vessel and provide science on a sphere as central element of the chart exhibition*
- The USHC selected Canada for the next Council period 2023 – 2026.



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USCHC is requested
to take note of this briefing,
and to take action as considered appropriate



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