

**12th Meeting of the
Arctic Regional Hydrographic Commission (ARHC)
St. John's NL, Canada, 12- 16 September 2022**

**IHO Secretariat's Report
on
recent developments of relevance for the
Arctic Region**

**Dr Mathias Jonas
Secretary-General**



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Arctic Regional Hydrographic Commission

Forthcoming 6th Council

Ahead of the 3rd Session of the IHO Assembly, the main topics on the C-6 agenda will be the

- Roadmap for the S-100 Implementation Decade,
- Dual Fuel concept for S-100 ECDIS,
- IHO Strategic Plan 2021-2026,
- Revised Capacity Building Strategy
- IHO Budget and Work Programme 2023 and for the period 2024-2026.



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Forthcoming 3rd Assembly

Assembly had to be moved by one week! New date 2 – 5 May

Thematic session on day 3 afternoon

Draft layout - Three moderated thematic panels:

- Survey/Ocean Mapping - GEBCO/SB2030,
- Navigation support - S100 framework,
- Bridging to UN: Ocean Decade and GGIM

Ideas for presenters welcome!



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Hydrographic Commission on Antarctica HCA (1)

- HCA met for its 18th Conference in Berlin, Germany, 24-26 May 2022
- Revised HCA Statutes now fully aligned with the IHO Resolution 2/1997 - Establishment of Regional Hydrographic Commissions (RHC) – the Antarctic Treaty System, the last ATCM Resolutions and the IHO Strategic Plan 2021-2026. Antarctic Treaty, Article II 1.(c) states that “scientific observations and results from Antarctica shall be exchanged and made freely available”.



Hydrographic Commission on Antarctica HCA (2)

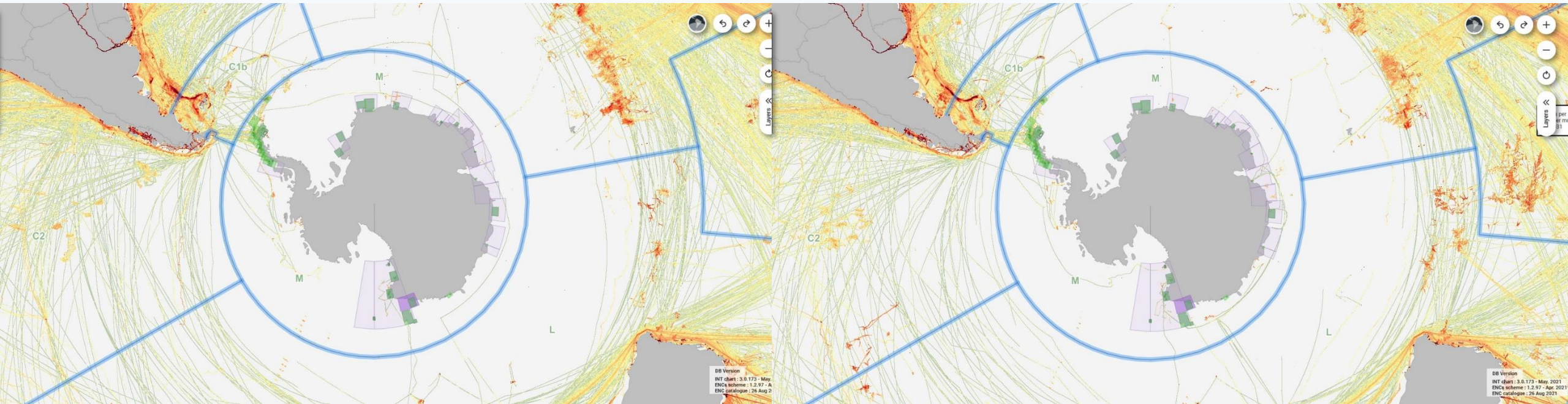
- HCA agreed to establish an HCA S-100 Implementation Working Group. Some actions are planned to prepare the governance and production strategies for the top priority S-100 based products (S-101, S-102, S-104, S-111, S-122, S-124, S-128, and S-411). <- Proposed comparable action for Arctic Region.

Following up on Action WENDWG12/33 (IGIF pathway matrix per S-1xx product, per RHC), **HCA** agreed on some guiding initial principles and leaders to fill the HCA S-100-IGIF Matrix:

- **S-101: GB** (as Region M Charting Coordinator, continuity by S-57 conversion)
- **S-102: GE** (in liaison with **AWI**, as Seabed 2030 Data Centre/IBCSO)
- **S-104: US** (in its global capacity in ocean modelling)
- **S-111: US/FR** (in its global capacity in ocean modelling)
- **S-122: EC/GE** (making benefits of experience gained in Ecuador and BSHC)
- **S-124: AR, AU, CL, ZA, NZ** (as NAV Coordinators)
- **S-128: NO/GB** (as Operators of PRIMAR/IC-ENC)
- **S-411 – Ice information: AR/CL/GE**



HCA (2) enhanced functionality of IntoGIS: AIS Layer



Traffic Density in March 2019,
UB3 to UB6 for INT and ENC

Traffic Density in March 2020,
UB3 to UB6 for INT and ENC



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HCA (3) Naming of the „Southern Ocean“

- Re-opening of the discussion on the issue raised by the publication of an article in National Geographic recognizing a 5th ocean in the world (the so-called “Southern Ocean”) while a Note on the Oceans in the foreword of IHO Publication S-23, indicates why this body of water has been omitted in S-23, Edition 3, 1953. Noting the wide usage of “IBCSO” by GEBCO for instance, HCA agreed to consider the possibility of submitting an IHO Resolution at the next Assembly
<https://www.nationalgeographic.com/environment/article/theres-a-new-ocean-now-can-you-name-all-five-southern-ocean>.
- A draft text for the possible new IHO Resolution was sent out to HCA members for consideration and comments before submission by the HCA Chair to A-3. <- **proposed response to [e-HCA Letter 03/2022](#), deadline 30 Sep by HCA members.**



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IMO NCSR9 Decisions (relevant for ARHC)

- agreed to the draft amendments to SOLAS chapter XIV and the Polar Code parts I-A and I-B (ships safety).
- agreed to the draft MSC circular on ECDIS Guidance for good practice (deletion of some of the obsolete references made to the Data Presentation and Performance Check (DPPC) dataset of IHO in relation to anomalies)
- approved the draft MSC resolution on Performance Standards for Electronic Chart Display and Information Systems (ECDIS) and forward it to the Committee (MSC 106, November 2022) for adoption;



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Consequences on IMO Decisions specific for ECDIS

- ECDIS Performance Standards now include references to IHO Product Specifications S-98, S-100 and S-101.
- NCSR9 agreed on a transitional period of three years between 1 January 2026 to 1 January 2029, during which new installations of ECDIS compliant with either the existing IMO Resolution MSC.232(82) standards or the newly introduced S-100 based IMO ECDIS Performance Standards is accepted.
- IHO has now commitments towards IMO and other stakeholders to achieve operational status on the prioritized S-100 Product Specifications iaw the Roadmap for the S-100 Implementation Decade to achieve substantial coverage including robust distribution and update services for S-101 ENCs and related products by 1 January 2026.



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Consequences on IMO ECDIS Decisions specific for ARHC

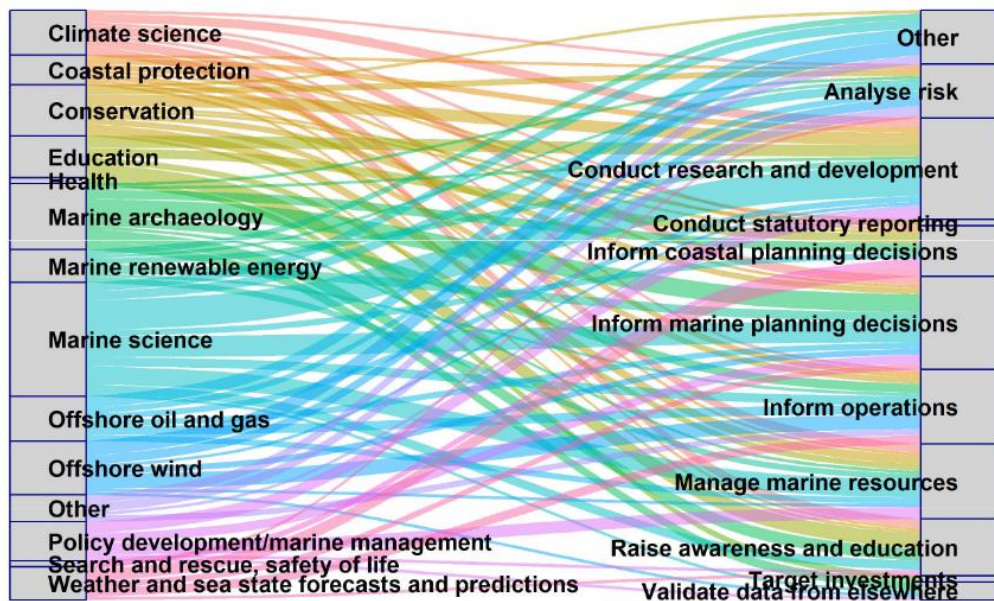
To meet new IMO ECDIS its time for action. Like HCA, ARHC is invited

- to set up a S-100 Services Coordination transition S-57 to S-101, other S-1xx, S-4xx in Arctic...) for the Arctic Region (ICCWG for Region N extension?) and apply instructions from IRCC/WEND (reference: [WENDWG Letter 02/2022](#)).
- to report via ARHC representative in WENDWG at WENDWG13 on the S-100 Roadmap for the Arctic.



UN Oceans Conference Lisbon June 2022

Message: uses of hydrographic data are diverse



IHO SG, Assistant Director Sam Harper and PR&Comm Officer Sarah Jones-Couture attended the 2nd UN Ocean Conference in Lisbon, 27th June – 1st July 2022.

- The principle aim of the mission was to ensure that seabed mapping and hydrography were appropriately represented and build the IHO's strategic network and understanding of developments within the field of ocean science and the UN Ocean Decade.
- The IHO organized a side event on the role of marine data to help address the competing needs of a broad range of ocean stakeholders.



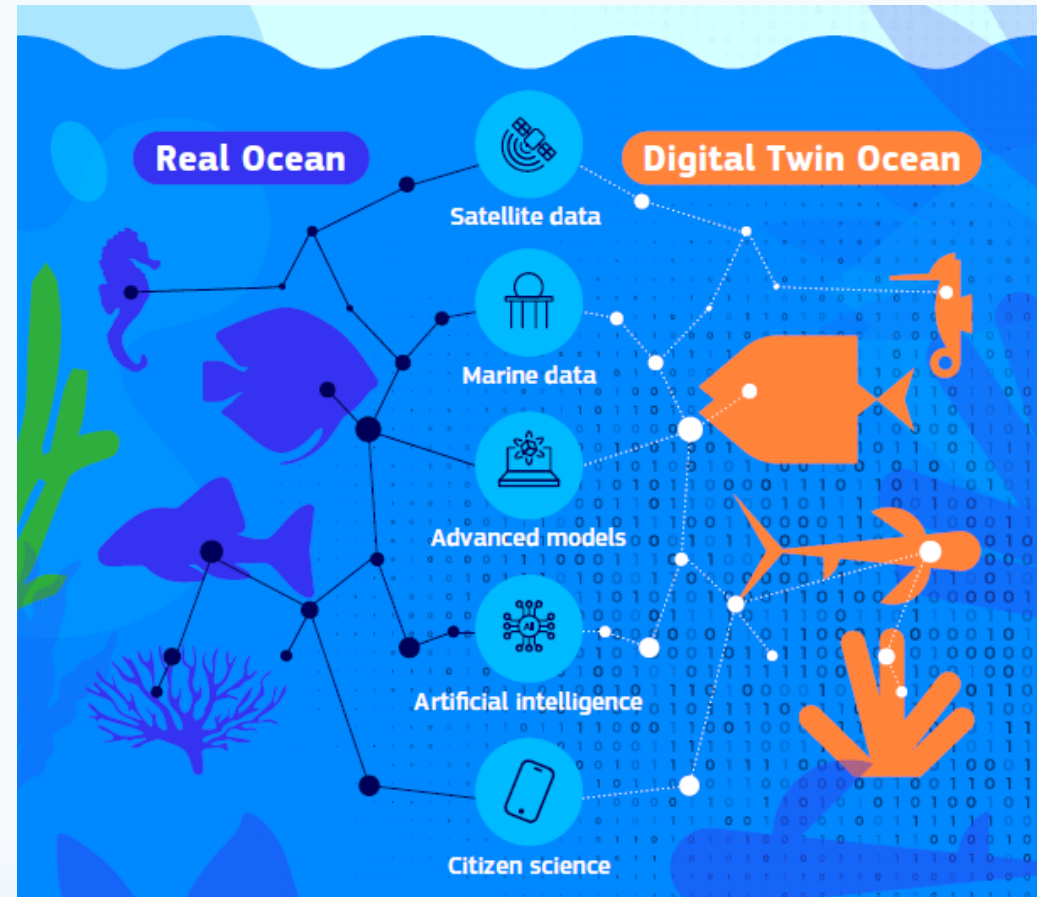
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UN Open-ended Informal Consultative Process on Oceans and the Law of the Sea

Twenty-Second meeting UN Headquarters, New York, USA 6 – 10 June 2022 (1)

- SG IHO contributed as panelist to Segment 2 “International cooperation and coordination in advancing ocean observing and addressing related challenges” and by means of his presentation titled “Mapping the Ocean to deliver base line information for all specific observations & interoperable ocean data in support of the digital twin”.



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UN GGIM - 12th Session of the UN Committee of Experts on Global Geospatial Information Management (UN-GGIM) 3 - 5 August 2022

UNHQ, NEW YORK / 1-5 AUGUST 2022

The Integrated Geospatial Information Framework (IGIF) provides a basis and guide for developing, integrating, strengthening and maximizing geospatial information management and related resources in all countries

 **UN-IGIF**
INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

 **UN-GGIM**

Twelfth Session of the United Nations Committee of Experts on Global Geospatial Information Management



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UN GGIM - 12th Session of the UN Committee of Experts on Global Geospatial Information Management (UN-GGIM) 3 - 5 August 2022 (2)

The Group of Standard Development Organizations (SDO) formed by ISO, OGC and IHO reported on their collective efforts and conducted a side event which was organized and moderated by the IHO.

- Under the title “Bringing Land and Sea together – How standardization helps to implement the Integrated Geospatial Information Framework in Coastal States“ this event presented the approach of the maritime domain how marine geodata can be operationalized by means of IGIF paradigms and presented case studies demonstrating how World Bank’s IGIF methodology is applied in developing island/coastal Nation States.
- Dr John Nyberg (USA), Chair of the UN-GGIM Working Group on Marine Geospatial Information, informed the participants about the progress made in the layout of the interpretation of the IGIF for hydrography (IGIF-H).



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Conclusions on participation of UN Events in view of Strategic Goal No 3

- IHO is only one in a multitude of voices. Visibility and networking is essential but comes with costs and efforts.
- IHO is well organized and effective thanks to the representation of Member States through hydrographic offices which belong to the national administration and enjoy secured funding for systematic work.
- IHO has a chance to become a main player for the digital twin of the ocean if the suitability of the S-100 concept is understood and adopted beyond our traditional stakeholder's community. In liaison with OGC and ISO, IHO should strive to interface with the oceanographer's community put focus of marine geo services like nowcast, forecast and simulation. ARGO is a good example.
- IHO should consider further development of existing and new authoritative regional and global geoinformation services such as GEBCO grid, ENC coverage, CATZOC, undersea feature names, S-130 polygon and ... marine protected areas.



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Proposed action for ARHC in view of Strategic Goal No 3

Identify themes of the hydrographic domain to support Strategic Goal No 3 - for example

- renew Sea Ice data service provision (S-411)
- start to collect MPA information (coverage, metadata) to become prepared for a test case for S-122 GIS service for the region
- allocate human and material resources to assist the Secretariat in outreach to UN Ocean decade activities addressing themes of the Arctic region



ARHC is invited
to take note of this briefing,
and to take action as considered
appropriate



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