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**19<sup>th</sup> Conference of the  
IHO Hydrographic Commission of Antarctica (HCA)  
Venice, Italy, 16-18 April 2024**

**REPORT**

**IHO SECRETARIAT'S WORK, COUNCIL MATTERS  
AND WORK PROGRAMME ITEMS**

**DR MATHIAS JONAS  
SECRETARY-GENERAL**



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# HCA MEMBERSHIP

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THREE NEW HCA MEMBERS SINCE IHO ASSEMBLY MAY 2023!

## Warm welcome to

- Netherlands
- Poland
- Türkiye





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## IHO ASSEMBLY DECISIONS RELEVANT FOR HCA

### DECISION 13 AND 14

- S-100 ECDIS would be legal to use after 01 January 2026 and from 01 January 2029 new systems must comply with the new IMO Resolution MSC.530(106) on ECDIS Performance Standards.
- The Assembly ... approved the dual-fuel concept for S-100 ECDIS
- The Assembly recognized the need to establish the S-100 Infra Center and ... requested HSSC to propose to the Council to establish the S-100 Infra Center and how it can support the S-100 framework.



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## IHO ASSEMBLY DECISIONS RELEVANT FOR HCA

### DECISIONS 17 AND 19

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#### The Assembly:

- a) approved the revision of clause (e) of Article 8 of the General Regulations of the IHO (Membership of HCA “*...In the unique case of the Antarctic region, membership...reserved for Member States ... have acceded to the Antarctic Treaty and contribute resources to the provision of hydrographic data, products and services supporting marine safety of navigation within, and/or the wider marine geospatial information of the Antarctic region.*”)
- b) approved the proposed IHO Resolution on the recognition of the *Southern Ocean*.
- c) took note of the consequences on the limits of some global sea areas as a result of the recognition of the *Southern Ocean*.
- d) endorsed the fact that this new Resolution is without prejudice to or limitation of the views of the IHO, any other international body or any IHO Member State regarding the subject matter addressed.

(Effects on the creation of the S-130 dataset to be presented later)

Hydrographic Commission on Antarctica



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## IHO COUNCIL DISCUSSIONS RELEVANT FOR HCA

### C7/26 AND OTHERS

- The Council approved amendments to S-100 Implementation Roadmap. New v3.0, October 2023 at <https://iho.int/en/s-100-implementation-strategy>
- Establishment of the S-100 Infrastructure Centre
- Automated production of paper charts from S-101 data
- Way forward to test S-130 Product Specification Ed. 1.0.0 in two regions (Region E – Baltic Sea, Region M - Southern Ocean)
- Ex Abyssis ad Alta – annual IHO Award for Hydrographic Excellence
- WWNWS-SC collaboration with the WMO Worldwide Met-Ocean Information Warning Service, focused on S-124 progress and Iridium SafetyCast Implementation.



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# IHO COUNCIL DISCUSSIONS RELEVANT FOR HCA (2)

HCA HAS GAINED EXPERIENCE ALREADY ...

## Basic Survey – preference, capacity & willingness to host

**Capacity: Yes or No**

**Freq: 1=case by case, 2=annual, 3=by exception, 4=always**

	PT/WG		Committees		Council		Assembly	
	Capacity	Freq	Capacity	Freq	Capacity	Freq	Capacity	Freq
Full remote VTC								
Hybrid – in person & VTC								
In person only + passive live stream								
In person only								





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## **IHO COUNCIL DISCUSSIONS RELEVANT FOR HCA (3)**

### STRATEGIC CONSIDERATIONS RANGING INTO THE NEXT DECADE

- Council Vice-Chair to lead a correspondence group consisting of BR, DE, DK, FR, GB, HR, JP, NO, NZ, SE and US on the ways and means to prepare the next IHO Strategic Plan 2027-2032. Proposal on the scope, TORs of a Strategic Plan Review Working Group if any, to be submitted to C-8 for approval and implementation.

**PROPOSED WAY FORWARD**

- HSSC16 and IRCC16 invited for brainstorming on the possible axis of evolution of the existing SP in preparation of the revision phase (2024-2025) of the current SP. [HCA19 brainstorming to be prepared for IRCC16 on the agenda of this meeting]
- Establishment of Strategic Plan Review Working Group (SPRWG) by C-8 (October 2024)
- Prepare a draft revised Strategic Plan and provide to HSSC17 and IRCC17 (May/June 2025)
- SPRWG to finalize the draft IHO SP 2027-2032 based on comments received from IHO bodies and present it to C-9 (October 2025) for finalization/submission to A-4.

IRCC CL to all IRCC members (RHCs and subordinate bodies) asking them for input at IRCC16 on the possible axis of evolution of the existing SP in preparation of the revision phase (2024-2025) of the current SP.





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# HCA - CONTRIBUTION TO THE IHO STRATEGIC PLAN TO COVER 2027 - 2032

THE ANTARCTIC REGION IS SPECIAL

- Strawman discussion paper prepared by VC HCA
- The adaption of the HCA and the evolution of its programme of work to face climate change impact in Region M - Inputs to be considered in preparation of the revision of the IHO Strategic Plan
- Concerted implementation and maintenance of S-100 based data services for the region according to the burden sharing for INT charts among HCA members
- Consideration of amending S10x services for the region – in particular for ice and ocean weather

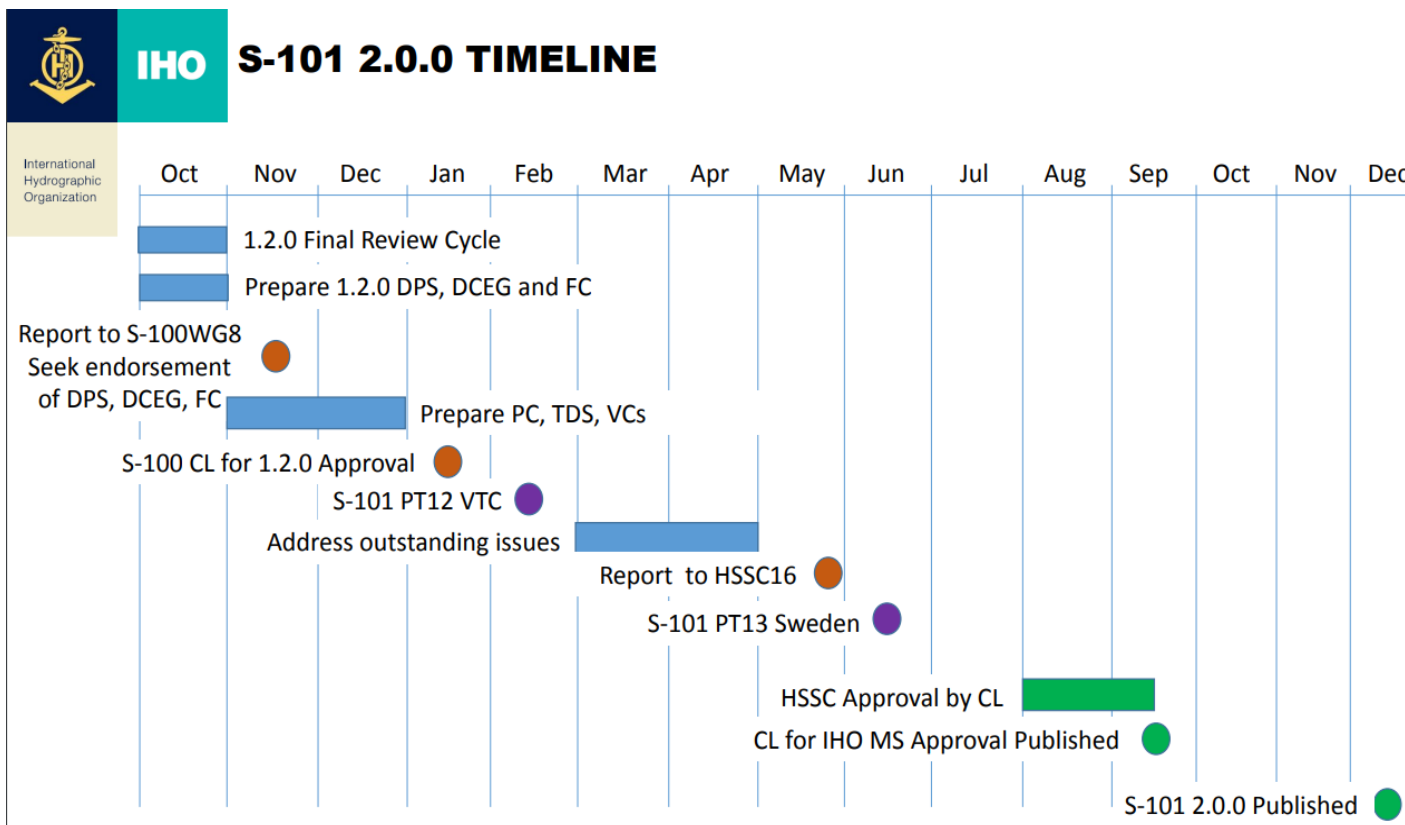
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# PROGRESS: IHO S-101 ROAD MAP

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S-101 Edition 2.0.0 Development timeline ranging from October 2023 to December 2024



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# WENDWG14 DISCUSSIONS AFFECTING HCA

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SEPARATE PRESENTATION UNDER AGENDA ITEM 07.6



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# PROGRESS S-122 (MARINE PROTECTED AREAS)

A NEW CARTOGRAPHIC TASK FOR IHO TO ASSIST BBNJ

- Finalization of the S-122 product specification under contract funded by IC-ENC
- Planned collaboration with ProtectedSea and ESRI to create S-122 global data set
- Planned Provision via IntoGIS III or IV (more under agenda item 07.5B)

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# **PROGRESS S-130 (POLYGONAL DEMARCATION)**

## TESTING AND EXPERIMENTATION PHASE

- Production of test data sets for the Baltic Sea and the Southern Ocean under contract
- Further technical refinement of the S-130 Product Specification based on the experiences gained in the round of test data set production
- Expansion of test data to the North Atlantic

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## LIAISON WITH ATCM

... MORE UNDER AGENDA ITEM 06.1A

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- HCA Secretary presented HCA report at ATCM XLV in Helsinki.
- No specific HCA report planned for ATCM XLVI in Kochi, India due to timely coincidence.
- Recommendation: HCA Members registered in ATCM XLVI in Kochi, India, are invited to participate in ATCM social events and side-discussion meetings.



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# GEBCO SUPPORT THROUGH CROWDSOURCED BATHYMETRY AND SEABED 2030

## RECOMMENDATIONS

- HCA members and associate members are encouraged to officialise and/or review their positions on the conduct of CSB in their waters of national jurisdiction (iaw IHO CL 21/2020 and IRCC CL 1/2020) and to identify further potential sources of bathymetric measurements and survey data providers to facilitate the further completion of the DCDB data holdings, as well as to make data openly available for inclusion in the DCDB and the widest possible use, in accordance with IHO Resolution 1/2017.
- HCA members are encouraged to become actively involved in the GEBCO programme and its subordinate projects, to support the collection of data within their waters, and to make more detailed and comprehensive seabed data available, in particular deep ocean data from transit or commercial/scientific surveys. (IHO's main contribution under Strategic Goal No. 3)



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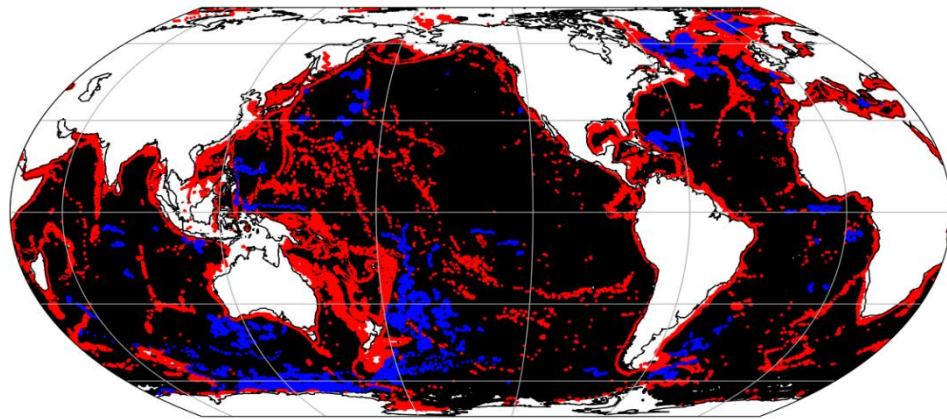
# GEBCO SUPPORT THROUGH ARGO FLOATS NOT LIMITED TO THE SOUTHERN OCEAN

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## Project Aims:

- Provide a validated Argo Bathymetry Data Product to contribute to GEBCO/Seabed 2030
- Validate Argo groundings and methodology

- Estimate vertical and horizontal uncertainties
  - vertical accuracy is promising
  - horizontal accuracy is challenging
- Provide routine updates as Argo array expands



## Proof of concept and first results by CSIRO:

IBCAO incorporated 3920 of the Argo soundings in the latest version. median difference was 14.2m, the mean difference was 31.2m and 540 measurements provided info where there is currently no data (> 10km away from IBCAO points).

**SCRIPPS/US California is working to make bathymetry a standard ARGO data product and aims to produce this layer permanently**

E. van Wijk, L. Wallace, B. Halley, N. Zilberman on behalf of the Argo Bathymetry Task Team and supported by:

Red = Core Argo (< 2000 m)

Blue = Deep Argo (4000 to 6000 m)

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