

19th Conference of the IHO Hydrographic Commission on Antarctica (HCA)
Venice, Italy, hybrid, 16 – 18 April 2024
&
HPWG¹, Region M ICCWG² and S-100 Workshop, 15 April 2024

Contribution to the IHO Work Programme 2024	
Tasks § 1.1.2	Maintain relationship with the Antarctic Treaty Consultative Meeting (ATCM)
§3.2.2	Organize, prepare for and report meetings of Hydrographic Commission on Antarctica (HCA)

The 19th Conference of the IHO Hydrographic Commission on Antarctica was held at the Army Club in Venice, Italy, in hybrid format from 16 to 18 April 2024, hosted by the Italian Hydrographic Office (IIM). It was preceded by a technical workshop (HPWG, Region M ICCWG and S-100) on the 15th April.

The Conference was chaired by Dr Mathias Jonas, Secretary-General of the IHO, supported by Assistant Director Yves Guillam, HCA Secretary, and Ms Caroline Fontanili (IHO Secretariat), as rapporteur. There were 58 delegates registered (28 present and 30 online) reflecting 21 out of 27 HCA Member States³: Argentina, Australia, Brazil, Chile, China, Colombia, France (including the Deputy Director from the French Polar Institute Paul-Emile Victor -IPEV), Germany (including the Lead of the Seabed 2030 Southern Ocean Regional Centre (SORC), Greece, Italy, Netherlands, Norway, Peru, Poland, Republic of Korea, Russian Federation, Spain, Türkiye, United Kingdom, USA, Venezuela and three Observers (Institute of biochemistry and biophysics - Polish Academy of Sciences⁴, and SCAR). The Chair made a special welcome to the Netherlands, Poland and Türkiye as new HCA members.



The HCA Chair thanked RAdm Massimiliano Nannini, Director of the IIM, for his warm welcome address in presence of the representative of the City of Venice, and Italy for hosting HCA-19 in such a historical and inspiring venue.

¹ HPWG : HCA Hydrography Priorities Working Group.

² Region M ICCWG : Region M International Charting Coordination Working Group.

³ Apologies received from New Zealand, South Africa and Uruguay. Australia (who registered as face-to-face) participated online.. India was registered but not present.

⁴ Also as Member of COMNAP.

The HCA Chair reminded HCA Members those fundamental principles of the Antarctic Treaty (1959), Article III, and also highlighted those principles which are fully reflected in the HCA statutes to promote international cooperation and exchange in order to make information freely available for the purpose of the conduct of hydrography in the *Southern Ocean*.



ARTICLE III
1. In order to promote international cooperation in scientific investigation in Antarctica, as provided for in Article II of the present Treaty, the Contracting Parties agree that, to the greatest extent feasible and practicable:

(a) information regarding plans for scientific programs in Antarctica shall be exchanged to permit maximum economy and efficiency of operations;

(c) scientific observations and results from Antarctica shall be exchanged and made freely available.

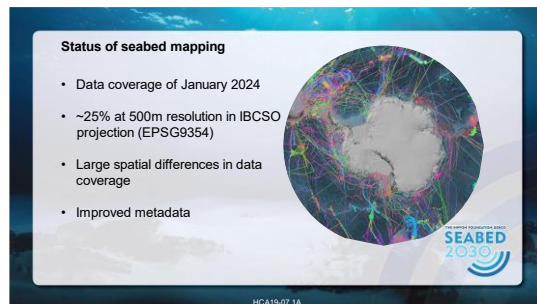
2. In implementing this Article, every encouragement shall be given to the establishment of cooperative working relations with those Specialized Agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica.

In introduction, the importance for HCA to become involved in the programmes and actions in relation to the impact of climate change in this specific region, was also highlighted. This subject was addressed in a set of proposals⁵ led by the HCA Vice Chair supported by the US and the IHO Secretariat.

The HCA Chair reported on various outcomes since the last HCA Conference in 2022 and highlighted those decisions and actions from the 3rd Assembly and the 7th Council meeting having a potential impact on HCA activities, such as:

- the approval of the amendments to S-100 Implementation Roadmap
- the Assembly decision to establish a S-100 Infrastructure Centre.

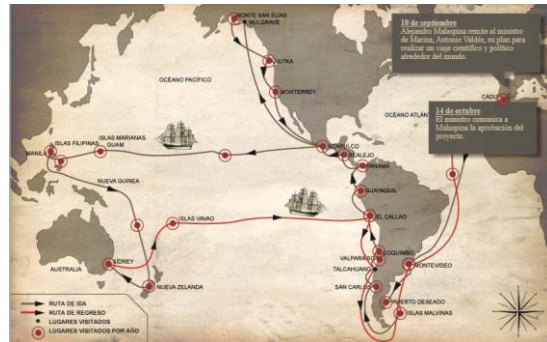
Dr Boris Dorschel, Alfred-Wegener Institute (AWI), gave an update on the development of the Seabed 2030 and the IBSCO and invited Member States to engage with their national marine research institutes to improve their contribution to GEBCO / Seabed 2030. The GEBCO Guiding Committee (GGC) Chair, highlighted the new GEBCO strategy and Governance report, as well as the IHO DCDB data holdings in Antarctica. It was agreed that the IHO in general⁶ should better depict the data flow for making contributions and promote it at high level (ATCM, and others contributing parties) to stimulate the provision of data to the IHO DCDB and metadata survey coverage (planned and existing) and, in return, facilitate the pull-push mode to get a one stop-shop discovery access on an annual basis.



The HCA then reviewed progress with national reports from Member States present and online. It was noted the excellent quality of the reports, and collaboration between states sharing data in general for harmonized production of nautical charts, avoiding duplication of efforts which must be encouraged. Noting the new assets available or planned, the reports demonstrated that numerous HCA members are strengthening their engagement for the Antarctic.

⁵ Addressed further in this bulletin report.

⁶ GGC Chair in liaison with IHO Secretariat.



Cdr José María Bustamante Calabuig (IM), when delivering the National Report from Spain at HCA-19, makes a moving reference to his ancestor, Captain José Bustamante y Guerra, commanding officer of the corvette *Atréviga*, sailing in the *Southern Ocean* during the *Malaspina and Bustamante expedition* (1789-1794)

A very substantive report was delivered remotely by Dr Chandrika Nath, SCAR representative. The HCA noted the information for a better understanding of future sea level change in Antarctica as well as the announcement of the 5th International Polar Year 2032-2033, to be considered as a possible input to the Revised IHO Strategic Plan. IAATO was thanked for sharing all IAATO reports to ATCM XLV (2023) for consultation on the HCA webpage as unfortunately Dr Lisa Kelley, IAATO representative, could not attend. The HCA Secretary reminded the importance for HCA to prepare carefully ATCM XLVII (2025), due to Priority Task#9 of the ATCM Multi-Year Strategic Work Plan: the IHO is expected to report on the progress made in the improvement of hydrographic surveys and products in Antarctica.

The HCA noted the report from the IHO Secretariat on the development of the INTToGIS III. A presentation was given on the structured development plan including the changes of the interface, adding S-100 products and ENDS (Phase I) and additional data layers. For the future planning of INTToGIS III, from 2025 – 2029, this tool is expected to facilitate planning / scheming ENC's, S-100 Products and ENDS by Member States, via a coordinated process within the RHCs. Then from 2026, the development of INTToGIS IV will include Phase II S-100 Products and ENDS.

Following up on the decision made at HCA-18 in 2022 and based on the outcome of the WENDWG-14 meeting in February 2024, the HCA Secretary reported on the way the HCA should handle the coordination of S-100 in Region M and consider a new distribution model (including cybersecurity), making easy access for end-users to obtain all S-100 Phase I products and ENDS⁷. It was also recommended that the HCA was to support the S-100 communication strategy towards end-users, manufacturers, IMO, addressing the planning of geographic coverage of S100 based products and data services from 2026.

Mr Lee Truscott (UKHO), Chair of the HCA Hydrography Priorities Working Group (HPWG) and Chart Coordinator for Region M, provided an outstanding review of the compilation of updates received from Members on INT charts and ENC production, and proposed options on the evolution of charting schemes (INT charts and ENC's) in the region and the Antarctic Peninsula in particular. The HCA welcomed the offer made by the Region M ICCWG Chair for VTC meetings, as and when required. Following the workshop and many bilateral discussions in session, consolidated decisions on these matters are to be attached to the main list of decisions and actions. It must be noted that this Conference allowed a real harmonisation of efforts and a great cooperative spirit between the parties.

⁷ Electronic Navigational Data Services.

Regarding the discussions on the strategy for the HCA in the future, the Vice-Chair delivered a report mainly focused on the impact of climate change including a set of proposals (simulation of new ice-free areas which will require surveys⁸, mean-sea level rise, etc.). After a fruitful discussion the HCA agreed to recommend IRCC that the HCA establishes and manages a specific HCA action plan on the subject, led by the Vice-Chair of HCA. As part of this action plan, the HCA Chair invited HCA Members to consider in particular the development of a digital twin of navigable waters of the *Southern Ocean*, free of charge as far as possible, in the true spirit of the Antarctic Treaty.

The HCA thanked Mr Patrick Dorr (NGA, USA) for his six years in service as active HCA Vice-Chair and elected Chile (RAdm Arturo Oxley, Director of SHOA) as new Vice-Chair.

In the HCA Chair's closing remarks, Dr Mathias Jonas highlighted four headlines to describe this very productive workshop and meeting:

- Coordination
- Collaboration
- Cooperation
- Transition

The HCA commended Mr Lee Truscott, supported by Ms Laura Caton (UKHO), for their hard work in the run up to this event. Sincere thanks were passed onto the IIM for their heartwarming and efficient hospitality. For the future, it was agreed that the hybrid option was acceptable and deemed useful for some HCA Members unable to travel for the HCA plenary Conferences, but inappropriate for technical complex sessions in workshop mode.

Finally, the HCA Chair gave a moving farewell to Mr Yves Guillam – the outgoing HCA Secretary. His exceptional work was hugely acknowledged, and the participants naturally rose for a standing ovation.

Thank you Monsieur Guillam.



The next HCA 20 meeting will be held in Punta Arenas, Chile, from 2 to 6 December 2025.

⁸ Possibly as a contribution to the SCAR research project INSTANT.



Participants in HCA-19, in-person and VTC

