

IHO Hydrographic Commission on Antarctica 15th Conference, Niteroi, Brazil 26-28 June 2018

Contribution to the IHO Work Programme 2018	
Task 3.2.2	Organize, prepare for and report meetings of Hydrographic Commission on Antarctica (HCA)

The IHO Hydrographic Commission on Antarctica (HCA) operates in a similar way to the other 15 Regional Hydrographic Commissions that encompass the world. Born by initiative of IHO Member States which are Member States of the Antarctic Treaty too, the HCA seeks to coordinate hydrographic activities so as to improve the quality, coverage and availability of nautical charting and other hydrographic data, information and services covering the Antarctic region. Due to the specifics of the legal conditions of Antarctic territories, their remoteness from civilization and its poorly explored state, HCA statutes put special emphasis on a collaborative approach of all Member States activities and addresses the support of scientific activities on the same level as safety of navigation. The 15th Conference of the HCA was held at the *Diretoria de Hidrografia e Navegação* (DHN), in Niteroi, Brazil, from 26 to 28 June.

The Conference was chaired by Dr Mathias Jonas, Secretary-General of the IHO, supported by Assistant Director Yves Guillam, Secretary (IHO Secretariat). 19 delegates from 10 Member States (Australia, Brazil, Chile, Colombia, Italy, Russian Federation, South Africa, United Kingdom, USA, Venezuela), one stakeholder organization (IAATO¹), attended the meeting. Apologies were received from Argentina, France, Germany, India, Japan, the Republic of Korea, and Norway, who were unable to attend but provided their national reports.



Participants of the 15th Conference of the IHO Hydrographic Commission on Antarctica

¹ IAATO: The International Association of Antarctic Tour Operators.

The Conference reflected on the effects of the revised Convention on the IHO pertaining to the HCA Statutes and agreed to apply the resulting editorial adaptations when the amendments to the IHO Resolution 02/1997, proposed by the IRCC, are endorsed by the Council.

The HCA reviewed progress since its 14th Conference held in 2016 and received reports from the IHO Member States present. Reports received from Member States not present were delivered by the Secretariat. The reports demonstrate impressively that numerous HCA members are strengthening their engagement for the Antarctic in terms of new ship's capacity for survey and research and investment in new carrier technology such as Autonomous Surface vessels. IAATO delivered a comprehensive explanation of its constitutions and operations. The IAATO representative highlighted the compelling need for enhanced hydrographic activities and agreed to check if the new IHO guidance on crowd-sourced bathymetry (B-12) can be implemented technically – possibly by export from Voyage Data Recorder recordings. This coincided with the consent of the commission that HCA Members should be encouraged to ensure that bathymetric information contained in their HCA ENC's should be extracted and transmitted to the IHO DCDB.

The Chair delivered the Secretariat's Report. He explained the association of the Commission to the relevant IHO bodies, namely IRCC, the IHO Council and the IHO Assembly and provided information on the preparations of the centenary celebrations of the international cooperation in hydrography with the peak event of the 100th anniversary of the IHO in 2021. He requested the HCA Members to identify materials and contributions from the Antarctic region to demonstrate the achievements since the 1st HCA Conference and provide the list of this materials to the IHO Secretariat for consideration.

HCA noted the solid progress in the production of paper charts (so far altogether 90 charts) and related ENC coverage. Taking note of a recent IRCC decision, it was agreed that the Region M Coordinator, in liaison with HCA Secretariat and the RENCs, has the responsibility to check and monitor ENC overlaps within the Antarctic region.

Discussions at the meeting centred not only on the need to obtain bathymetric data from all sources and observers in the region, but also on the need to improve and develop a coordinated approach across the HCA membership on the future provision of S-100 based data products. HCA agreed that, as a matter of principle, the current primary charting authorities in Antarctica should be encouraged to consider future production and distribution of S-100 based products for Antarctica, in their designated areas of charting responsibilities.

The Secretariat reported on recent activities to add functionality to IHO's native GIS Portal INTtoGIS to provide specific functional enhancements for the polar region such as polar centric azimuthal projection for the presentation of chart schemes. The Commission opted for an intensified cooperation with external data portals such as Quantarctica, led by the Norwegian Polar Institute to promulgate relevant hydrographic content through integration into their respective GIS services. Such collaboration was agreed as the future favourite solution instead of further technical investment from the Secretariat for a native HCA GIS database solution. In this context IAATO was requested to consider the possibility of providing metadata of vessels traffic patterns for inclusion as a layer.

The Chair of the HCA Hydrographic Priorities Working Group (HPWG) provided a comprehensive analysis of the charting coverage (INT paper charts and ENC's) in the region. Statistics and illustrations of recent vessel traffic patterns, provided by IAATO, and access to AIS data were very useful in verifying the existing maritime shipping routes (MSR) and were used to set survey and charting priorities in the HCA and resulted in the identification of two new MSRs.



Impressions of the arrangements made by the host to celebrate the event of HCA-15

Brazil delivered a presentation of the extended and successful interpretation of backscatter data as a result of a campaign to survey. The Commission agreed that the use of backscatter technology should gain more attention since it bridges well to scientific domains like geology and proves the concept of multiple re-use of survey measurements.

The Chair informed the Commission on the confirmed opportunity to present the status of hydrographic activities in Antarctica at a seminar as part of the 42st session of the Antarctic Treaty Consultative Meeting (ATCM) taking place in Prague, Czech Republic in July 2019. The Commission agreed on the outline of the HCA presentation to be given at the event and placed the upcoming HCA-16 around this date from 3 to 5 of July 2019. Since the Czech Republic is not an IHO Member, the Secretariat accepted the organizing role for the event.



Since the HCA-15 was coincidentally timed with the Football World Cup in Russia. The HCA members did not miss to collectively watch the game of the Brazilian team against Serbia and congratulated the winner.