

**14th Conference of the Arctic Regional Hydrographic Commission (ARHC)
Tromsø, Norway
3 – 5 September 2024**

Contribution to the IHO Work Programme 2024

Task 3.2.2.1 Prepare for and report meetings of the Regional Hydrographic Commissions (RHC) / ARHC

High level summary:

- Commission members informed each other about their recent hydrographic activities in the Arctic Region.
- Four out of five Commission members are ready to deliver S-101 ENC's and S-102 high resolution bathymetry datasets according to the timelines of IHO's S-100 roadmap from 2026 onwards.
- The Commission proposed a refined method to assess the adequacy of hydrographic survey for future use by all Regional Hydrographic Commissions.
- Regarding collaboration with the Arctic Council's Working Group on the Protection of the Arctic Marine Environment (PAME), the Commission agreed a renewal and update of the 2019 Memorandum of Understanding to foster greater communication between the ARHC and PAME and enhance coordination on strategies to improve hydrographic data and services in the Arctic and environmental sustainability, safety and efficiency of Arctic shipping.

Details:

Twenty-four participants representing four ARHC Members (Canada, Denmark, Norway, and the USA) and four Associate Members (Finland, Iceland, Italy and United Kingdom) participated in the Conference.

The ARHC Conference was chaired by Evert Flier, Norway. The IHO Secretariat was represented by Secretary-General Dr Mathias Jonas.

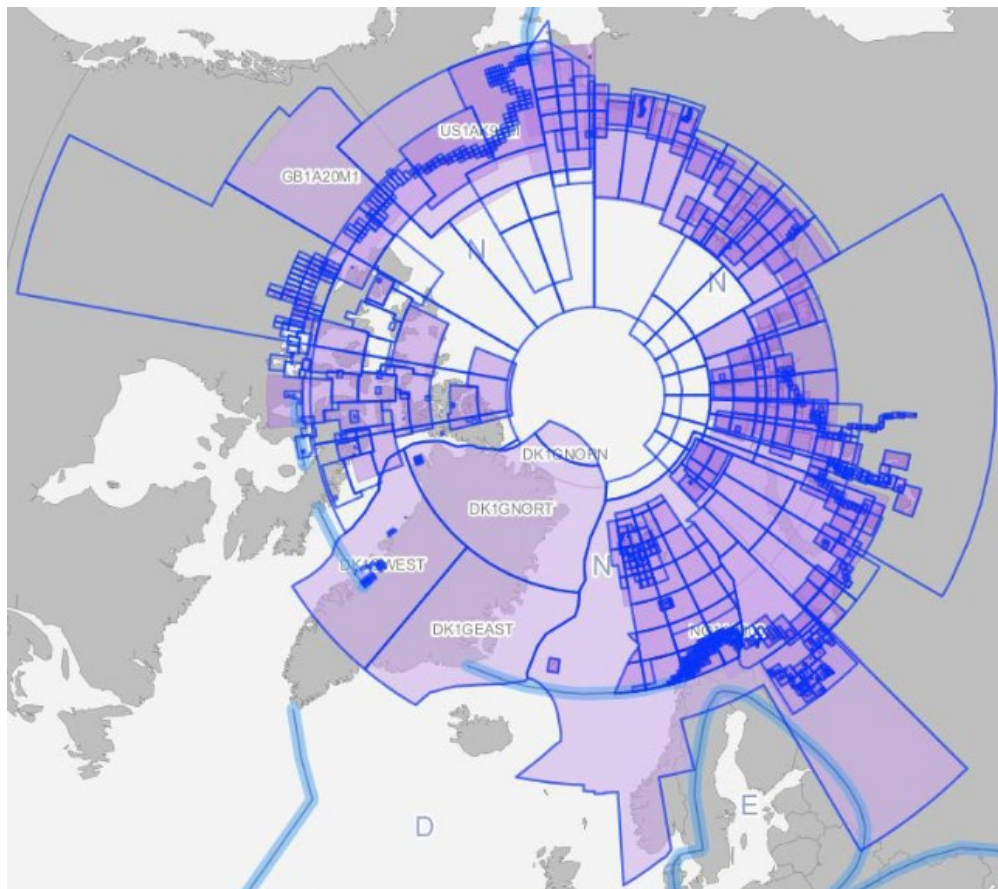
The conference was preceded by an Open Forum which saw presentations from Norwegian academia and several industry partners in the field of cutting-edge survey technology such as airborne lidar and satellite derived bathymetry.

The Meeting commenced with the IHO Secretariat's Report. ARHC Members were informed by the IHO Secretary-General of the strategic issues discussed at this year's meetings of HSSC and IRCC, these strategic issues will be on the agenda of the upcoming 8th meeting of the Council. In his presentation, the Secretary-General put special emphasis on the parallel activities of the Hydrographic Commission on Antarctica in view of a coordinated approach for the implementation of future regional S-100 based data services.

All participants reported on their national activities in the Arctic region since the last Conference. The Conference took note of items such as uncrewed survey technology, national survey programs, definition of cross boundary ENC gridding schemes ENC provision and other themes of relevance for all Hydrographic Offices of the region. All four Commission members present confirmed their principal readiness to start the regular provision of S-101 and S-102 products according to IHO's agreed S-100

roadmap implementation timelines. Canada shared an interesting comment made by Navigators operating in the region: in their view, detailed and up to date ENC's make Aids to Navigation redundant. The following facts provided by the US report are of common interest beyond the Arctic Waters:

- USA and Canada agreed on rescheming their transboundary ENC's to an agreed grid.
- USA/NOAA S-100 coverage will be permanently presented under a new GIS service named "nowCoast" <https://nowcoast.noaa.gov/>
- Marine Spatial data infrastructure: in August 2024, the U.S. notified national and allied partners of the potential action for termination of the Global Maritime Traffic Density Service. This will impact on the continued provision of this layer by means of the IHO Secretariat's INTOGIS Service, as since up today there is now other accessible global source of traffic density based on AIS data recordings.
- Geospatial studies: USA/NGA has publicly released the Dynamic World Coastline – a world-wide coastline collected at 1:50k (50-meter accuracy)
- All existing US traditional paper nautical charts, including small craft charts and associated raster chart products will be cancelled by January 2025 as part of the U.S. program to "transition" all "traditional" paper nautical charts and related raster products. A paper chart alternative is being made available in the form of the online NOAA Custom Chart application. This enables users to create their own customized nautical charts directly from the latest official NOAA electronic navigational chart (NOAA ENC®) data. NGA produces the Certified Printed ENC for customers where NOAA has cancelled paper nautical charts to meet SOLAS or other regulatory requirement for specific customers.



*Overview on the ENC coverage Region N
Source: IHO INTOGIS Web catalogue*

US and Canada also reported about the unification of their respective national assessment of adequacy of hydrographic survey for all their international charting waters to feature IHO publication C-55. The engineering solution is based on water depth, CATZOC, and recent survey footprints and gains more adequacy compared to assessment of simply CATZOC. ARHC will draft a proposal to be bring this forward as the recommended method to IRCC which will include the coded algorithm as public domain.

Another discussion arose on IMO's ongoing review of the Polar code: the Commission proposed to add a cautionary note on the limited availability of detailed navigational charts and digital services in this specific area while at the same time strong commitment was expressed to apply the S-1xx based amending data services carrying regionally specific information such as ice information and MPA for the Arctic region.

Regarding collaboration with the Arctic Council's Working Group on the Protection of the Arctic Marine Environment (PAME), the Commission agreed a renewal and update of the 2019 Memorandum of Understanding (MOU). The purpose of this MOU is to foster greater communication between the ARHC and PAME and enhance coordination on strategies to improve hydrographic data and services in the Arctic and environmental sustainability, safety and efficiency of Arctic shipping. The ARHC and PAME intend to maintain and increase opportunities for scientific, technical and professional exchange between their members, sharing knowledge and expertise to the advantage of both.

ARHC and PAME decide to cooperate as follows:

1. Each body intends to exchange information with and consult the other on matters of common interest with a view to ensuring maximum coordination of their work and activities;
2. Each body intends to invite a representative of the other to attend any meeting at which topics within the other's area of expertise are on the agenda;
3. Each body intends to provide notice of proposed seminars, workshops, etc., that may be of interest to the other to enable joint participation should it be of mutual benefit. The bodies also intend to identify opportunities to organize seminars or workshops under joint sponsorship;
4. At the request of PAME, the ARHC will provide input to PAME with respect to matters within the scope of activities and expertise of the ARHC; at the request of the ARHC, PAME will provide input to the ARHC for matters falling within the scope of activities and expertise of PAME.

Group Photo





Upcoming meetings:

At the end of the meeting, USA took over the ARHC chairmanship, with Canada as Vice-Chair. It was agreed that the next meeting of the ARHC will be hosted by USA in Anchorage and Nome, Alaska from 7-13 September 2025.