

Implementation of the Arctic Council - ARHC Joint Statement on Hydrography in the Arctic Region

DRAFT

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<i>Submitted by:</i>	Canada, Denmark, Norway and the United States of America
<i>Executive Summary:</i>	This paper lays out the development of several forthcoming projects that could be viewed in support of the implementation of the the Arctic Council-ARHC Joint Statement on Hydrography in the Arctic Region (Joint Statement).
<i>Related Documents:</i>	Arctic Council-ARHC Joint Statement on Hydrography in the Arctic Region (May 2021) ARHC-PAME MOU (March 2020) ARHC-PAME MOU Brainstorming Ideas ARHC Chart Adequacy Assessment (2018) (image) Arctic Ship Status Report (2019) Caution using Nautical Charts of Arctic Waters
<i>Related Projects:</i>	PAME Arctic Shipping Status Reports PAME Arctic Ship Traffic Data System PAME Arctic Shipping Best Practice Information Forum

Introduction/Background

The ARHC and Arctic Council’s Working Group on the Protection of the Arctic Marine Environment (PAME) share common interests to protect the marine environment and enhance the safety of maritime transportation in the Arctic. An MOU between the ARHC and the Arctic Council’s PAME was signed in April 2020. Subsequently, a Joint Statement on Hydrography was further endorsed by the Arctic Council and ARHC in May 2021 that highlights the importance of hydrography in the Arctic region for safe and sustainable maritime navigation. The Joint Statement recommends that the governments of the Arctic States review, update and improve existing, and collect new, bathymetry and hydrographic data in the Arctic region. It encourages these governments to find additional resources to strengthen hydrographic surveying and charting in the Arctic region. The Joint Statement identifies several ways each of these recommendations may be pursued. This paper provides an update on current and prospective efforts to deliver tangible projects/deliverables.

Analysis/Discussion

There are several forthcoming projects that could be viewed in support of the implementation of the Joint Statement. The ARHC may wish to consider a brief annual report to the Arctic Council that will underscore the commitment of the ARHC to the Joint Statement. Examples include:

Updated Arctic Ship Status Report (ASSR)

The following effort is currently underway to be conducted by NOAA in 2022. An updated Arctic Ship Status Report (ASSR) will depict the most traveled shipping routes in the Arctic and compare them to those areas of the Arctic Ocean that are surveyed and charted to modern nautical standards. Ship traffic data for the report is expected to be obtained from the Arctic Ship Traffic Data (ASTD) Database for the 2020 navigational season, and hydrographic information and its assessed quality could come from the 2018 ARHC Chart Adequacy Assessment. The updated report will also include a NOAA analysis on heavy fuel oil (HFO) use in the Arctic in 2021, and compare it to heavy fuel oil use in 2019. This will characterize traffic composition and volume with respect to type of fuel oil used and quantity/volume of fuel oil to assess changes and trends. POC: karen.gouws@noaa.gov

Updated Chart Adequacy Assessment

The 2018 ARHC Chart Adequacy Assessment will be updated in 2022/2023 with new data and will consider a revised approach, pending data availability. The ASTD System will be vital for updating this assessment. POC: christina.fandel@noaa.gov

Seascope Alaska and Partnership Building in the Arctic

Complementing U.S. national coastal and ocean mapping strategies in Alaska, this Joint Statement is another driver of partnership building in the Arctic to reach common goals. The Seascope Alaska initiative, a regional campaign supporting efforts to fully map Alaskan waters, is one such example. With members working together to understand the depths of Alaska's vast seascape, the campaign envisions accessible, high quality, modern seabed data for Alaskan waters. Mapping will be accomplished through multibeam sonar and aerial lidar surveys, complemented by uncrewed systems and crowdsourced bathymetry involving traditional and non-traditional mapping assets. POC: meredith.westington@noaa.gov

Data Sharing

Increase efforts to share all data collected on future Arctic voyages and to review existing data holdings to share, either directly or through their national hydrographic office, with the IHO Data Center for Digital Bathymetry ("DCDB")

BASE content ENC's (Denmark)

In Greenland, production of traditional paper charts and ENC has a long production time as the coastline is very inaccurate and it takes a long time to fit coastline, new multibeam and existing depth information. Therefore, the Danish Hydrographic Office (DGA) has decided to start a production of BASE content ENC's and expects to produce several new BASE content ENC's before the end of 2023, covering areas of the west coast of Greenland where DGA has new multibeam surveying data. By producing BASE content ENC's with reduced content, it will be possible to get the current survey data out to users significantly faster. BASE content ENC's will contain only the most necessary information for navigation; multibeam depth data, new georeferenced coastline and information that is important for navigation, e.g. lighthouse, beacons and cables. BASE content ENC's are made in areas where there is no existing ENC coverage and the additional data will be added in over time to bring the cells up to full capture content. The cells are available through the usual distribution channels and should be used as any other official ENC.

Marine Protected Areas

Increase efforts to bring together MPA and shipping/charting issues. This could be done within an Arctic MSDI, a domain that the ARHC has the expertise to contribute to the Arctic Council.

Additional ARHC and PAME Joint Activities

The [PAME 2021-2023 Work Plan](#), approved by Senior Arctic Officials and Arctic State Foreign Ministers, includes additional activities that foster communication and coordination between PAME and the ARHC in line with the MOU (2020) to support Arctic maritime safety and the protection of the Arctic marine environment. These include to:

- Consider the development and dissemination of reports and other information that support navigational safety and environmental protection in the Arctic along the lines of the [Arctic Navigation Risk summary bulletin](#) issued by the ARHC in 2017; and
- Review the potential interoperability of databases (including the ASTD System) that contain Arctic geospatial information to determine their potential utilization across platforms for improved analysis.

Justification and Impacts

The ARHC is concerned with the scientific and operational considerations to promote safety of navigation in the Arctic. PAME is concerned with the policy considerations to protect the marine environment. The Joint Statement offers an opportunity for tangible and impactful projects that are collaborative and significant in the Arctic region, and follow-up is vital to pushing envisioned outcomes of the Statement forward. The current document offers a timely update on activities in the spirit of progressing the issues and interests identified in the Statement and the MOU.

Recommendations

This paper is provided to the ARHC-11 for informational purposes. However, ARHC Members and Associate members are invited to discuss this informational paper and provide any thoughts or comments. Some initial questions may be:

- Does the ARHC wish to communicate to PAME and/or the Arctic Council to summarize efforts implementing the spirit of the joint statement “to- date” by the end of the calendar year, potentially as an annual report?
- Does the ARHC wish to appoint a permanent Point of Contact (POC) who would be responsible for managing the communications between the ARHC and Arctic Council and spearhead an annual report? For example, shall the Chair of the ARHC provide a courtesy year-end update to the AC and PAME which would support planning, implementation of activities, and communications during the following-year (eq, PAME-I, PAME-II, etc...)? Shall a staff-level POC from ARHC be identified to facilitate and coordinate this effort in support of the ARHC Chair?
- Does the ARHC wish to mobilize small project teams to work on each activity and communicate status updates to the POC?

Action required of ARHC

The ARHC is invited to:

- a. Note the forthcoming projects of relevance to the Joint Statement;
- b. Consider and share any comments during or following ARHC-11;
- c. Take appropriate action, if any.