



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Coast Survey
Silver Spring, Maryland 20910-3282

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Peter H. Oppenheimer
Chief, International Section
General Counsel Office
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
1401 Constitution Ave., NW - HCHB 48026
Washington, D.C. 20230

Drummond Fraser
Marine Safety Policy Advisor
Transport Canada
Legislative, Regulatory and International Affairs
330 Sparks Street
Ottawa, Ontario, Canada K1A 0N5

Dear Mr. Oppenheimer and Mr. Fraser,

As you prepare for your upcoming PAME-II (2020) meeting, I am pleased to convey the following report and inquiry to you for further consideration. With the conclusion of ARHC-10 meeting on August 14, I am requested by the ARHC to pursue next steps the ARHC and PAME might explore further in our shared goals of protecting the Arctic marine environment in the spirit of the recently signed MOU.

First of all, I express my appreciation to the PAME Secretariat's Mr. Hjalti Hreinsson for participating in the ARHC Science Forum on August 11 during which he presented an excellent report on the activities of PAME¹ and the Arctic Ship Traffic Data Base (ASTD) System. His report sparked good discussion both during the ARHC Science Forum itself as well as during the subsequent ARHC-10 meeting.

For the ARHC-10, my staff prepared a discussion paper concerning potential activities that could be undertaken in the spirit of the ARHC-PAME MOU. This paper is available at the website of the International Hydrographic Organization.² The purpose of the paper was to stimulate discussion and generate guidance on the ARHC for contacting PAME. With the conclusion of ARHC-10, I wish to offer the following for consideration:

¹ https://iho.int/uploads/user/Inter-Regional%20Coordination/RHC/ARHC/ARHC10/ARHC_SF_2020_2_ASTD%20presentation.pdf

² https://iho.int/uploads/user/Inter-Regional%20Coordination/RHC/ARHC/ARHC10/ARHC10_2020_H1_ARHC%20PAME%20MOU%20Brainstorming%20Ideas.pdf



- The Antarctic Treaty Consultative Mechanism-42 adopted Resolution 6 (2019) Hydrographic Mapping of Antarctic Waters.³ The ARHC believes a similar statement could be valuable for the Arctic and would like to explore with PAME the possibility of developing one that might be issued as a recommendation by the Arctic Council or through other means. While the Antarctic and the Arctic are very different regions with different governance regimes, hydrographic conditions present comparable concerns.
- In 2017, the ARHC promulgated an Arctic Navigation Risk summary bulletin.⁴ The purpose of the bulletin was to highlight the risks of navigation in the region due to poor quality or inadequate hydrographic data and the need for mariners to exercise extreme caution. The ARHC will be updating the bulletin this year and would like to explore with PAME the development and dissemination of reports and other information that support navigational safety and environmental protection in the Arctic.
- There are a variety of databases that are available for sharing awareness and assessing historical geospatial data in the Arctic, among which PAME's ASTD System has been introduced to the ARHC. At the ARHC, we would like to undertake a review of the interoperability of databases available for their potential utilization across platforms for improved analysis. Mr. Sebastian Carisio, Chair of the ARHC Arctic Regional Marine Spatial Data Infrastructure Working Group (ARMSDIWG), and Mr. John Nyberg of the UN Global Geospatial Information Management Marine Working Group (UNGGIMWG), both of whom participate in the ARHC, would like to explore the interoperability of Arctic relevant databases with an appropriate PAME representative. The process could involve a review of the ASTD System and other marine geospatial infrastructure information systems for the Arctic applying the *FAIR* (**F**indable, **A**ccessible, **I**nteroperable, and **R**eusable) Principles and framework⁵ with the generation of a report to ARHC and other stakeholders by the end of 2021.
- In 2018, the ARHC updated its arctic hydrography risk assessment and plans to do so on a five-year cycle with the next update in 2023.⁶ The ARHC invites PAME to designate a representative to communicate with the ARHC lead on the approach, structure, usability etc. in the 2023 update. ARHC's designated point of contact is Mr. Corey Allen (Corey.Allen@noaa.gov), Chair of the ARHC Operations and Technology Working Group.

³ https://documents.ats.aq/ATCM42/fr/ATCM42_fr001_e.pdf page 419

⁴ <https://iho.int/uploads/user/Inter-Regional%20Coordination/RHC/ARHC/MISC/Notice%20on%20caution%20required%20when%20using%20nautical%20charts%20in%20Arctic%20waters3.pdf>

⁵ <https://www.go-fair.org/fair-principles/>

⁶ https://www.iho.int/mtg_docs/rhc/ArHC/ARHC8/ARHC8-C1a_Arctic_Hydrographic_Adequacy_OTWG.pdf and <https://noaa.maps.eregis.com/apps/webappviewer/index.html?id=2e0f077b8a0147149c8229c9204332d7>

- Monitoring IMO developments participating in annual meetings of PAME's Arctic Shipping Best Practice Information Forum has made ARHC keenly aware of the challenges and opportunities presented by the ongoing implementation of the Polar Code by maritime administrations, industry, and other stakeholders. The ARHC would like to explore the possibility of contributing to PAME's ongoing project, led by Norway, regarding the harmonized interpretation and practical application of the Polar Code, as well as any other pending and future PAME projects that support effective Polar Code implementation. For example, the hydrographic offices of ARHC member governments might consider undertaking a review of the Polar Code from the hydrographic and related nautical charting perspective.

The above is intended as an initial inquiry to PAME to explore cooperation and collaboration in the spirit of the ARHC-PAME MOU. Other initial topics, all of interest to the ARHC, are summarized in part in the brainstorm paper which I reference for additional consideration. Additionally, and most importantly, the ARHC welcomes PAME's thoughts and views.

In closing, the report of the ARHC-10 will be made available at the IHO website⁷ shortly following a standard review process. Of note, the Russian Federation was unable to attend the virtual conference but did convey warmest wishes on the important work of the ARHC- and I expect to be speaking with them toward the end of September. The ARHC-11 is tentatively planned to be held in Alaska in August or September 2021.

I wish the PAME-II (2020) meeting a great success and look forward to hearing the results of your discussions, in particular as they pertain to future ARHC-PAME cooperation and collaboration.

Sincerely,



Rear Admiral Shepard M. Smith
Chair, ARHC
Director, NOAA Office of Coast Survey

CC: National Hydrographer of Canada, Dr. Geneviève Béchard
National Hydrographer of Denmark, Ms. Pia Dahl Højgaard
National Hydrographer of Norway, Ms. Birte Noer Borrevik
National Hydrographer of Russia, Capt Konstantin Speranskiy
National Hydrographer of Iceland, Mr. Georg Kr Larusson
National Hydrographer of Finland, Mr. Rainer Mustaniemi
National Hydrographer of Italy, RADM Massimiliano Nannini
Senior GEOINT Advisor, National Geospatial Intelligence Agency, Mr. John Lowell
Deputy Hydrographer of the U.S. Navy, Mr. Matthew Borbash
IHO Secretary-General, Dr. Mathias Jonas

⁷ <https://iho.int/en/arhc10-2020>