



ARCTIC REGIONAL  
HYDROGRAPHIC  
COMMISSION

# ARMSDIWG Report (ARHC12-C4)

*Current status and planned actions of the ARMSDIWG.*

12<sup>th</sup> Arctic Regional Hydrographic Commission Meeting  
12-16 SEP 2022

# ARMSDIWG5

## ▪ Meetings

- No meetings to report since ARHC11.
  - ARMSDIWG is still awaiting approval of new Terms of Reference and Work Plan presented to ARHC11.

## ▪ Highlights

- In lieu of an expired Work Plan, and awaiting approval of the new Work Plan and future direction, all ARMSDIWG participants have been invited by OGC to participate as observers in Phase 3 of the FMSDI Pilot with the intention of exploring the AVPG in an Arctic use case among other activities.

# Federated Marine SDI-Pilot (FMSDI-Pilot) Phase 3



- This pilot directly responds to the **OGC-IHO MSDI Concept Development Study (CDS)** and is evidenced by the success of the OGC-IHO collaboration in the **OGC-IHO Maritime Limits and Boundaries Pilot** to initiate a full-scale Pilot to **demonstrate a multi-country, federated Marine Spatial Data Infrastructure (SDI) under land/sea interface use-cases**. This pilot also further builds on **OGC Arctic Spatial Data Infrastructure Pilot** results.
- Phase 3, supported by United States (NGA), started in JUL 2022, this phase includes an overarching, sea-based health and safety scenario incorporating the land/sea interface in the Arctic. The scenario will demonstrate the technology and data used with OGC, IHO, and other community standards in response to a grounding event and the evacuation of a cruise ship or research vessel in the Arctic. **Incorporating the Arctic Voyage Planning Guide (AVPG) will also be an important part of the Phase 3 use case**, where the main goal is to extend the use cases developed in the second phase of the FMSDI pilot and add the Arctic region as a new location to the demonstration scenarios.
- **ARMSDIWG's participating HOs have been invited by OGC to participate** as observers in Phase 3 of the FMSDI Pilot with the intention of exploring the AVPG in a use case in the Arctic among other activities. While the use case will be focused off the United States coast and use primarily United States and international data, the hope is that the study can be shaped by ARHC HO participation, and include considerations and re-applications beyond the United States.

# Cooperation with Arctic SDI

- At the time of this report, the Arctic SDI is pausing all official meetings until further notice.



**Joint Statement of Intent  
between the  
Arctic SDI Board  
and the  
Arctic Regional Hydrographic Commission  
2020**

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The Arctic SDI and the Arctic Regional Hydrographic Commission established a strategic collaboration and drafted a joint statement of intent, which serve as a tool to concisely describe their common goals:

**The Arctic National Mapping Agencies of the Arctic SDI Board and the Member State Representatives of the Arctic Regional Hydrographic Commission (ARHC) are committed to maintain a collaborative partnership in order to provide both the terrestrial and marine foundations in a regional SDI. The collaboration will facilitate bringing land and marine data together in an infrastructure that connects users across domains to the spatial data valued to support research, planning, and decision making in the Arctic.**



# Commitment from ARHC to be the Marine Component in an Arctic SDI

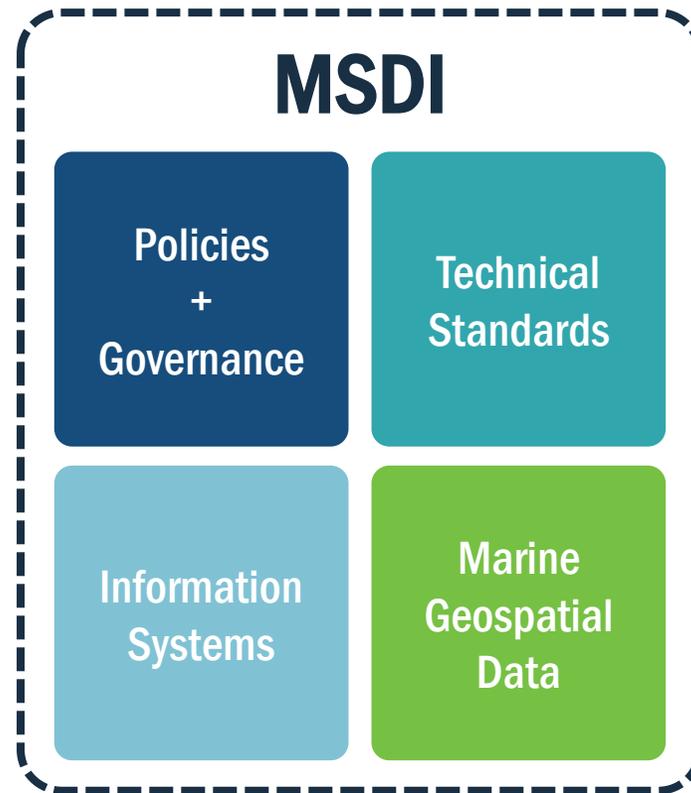
- From ARHC11:
  - ARMSDIWG with their current resources and their organizational breadth/structure are very limited in capacity and cannot equally mirror that of Arctic SDI to contribute in an equal way or support operational tasks that may be desired by ARHC, such as the AVPG.
  - ARMSDIWG's previous Terms of Reference (ToR) was not initiated with an operational component, so the last few years of ARMSDIWG interpreting AVPG criteria/requested data, inventorying available datasets, etc. has been a lengthy process without achieving a prototype stage at the very least.
- If achieved, the AVPG prototype would have been potential foundation/catalyst to meet other requirements by user groups in the Arctic which would respond directly to the needs of the Arctic Council working groups, to include **PAME**, with whom **ARHC** has a **Memorandum of Understanding (MoU)**, the main purpose of which is “**to enhance coordination on strategies to improve hydrographic data in the Arctic.**”
- *What better way would there be to improve hydrographic data in the Arctic than for the hydrographic authorities to provide the Marine component to a Spatial Data Infrastructure in the Arctic?*

# Commitment from ARHC to be the Marine Component in an Arctic SDI

- Question posed at ARHC11: **what would ARHC like to achieve with regards to MSDI in the region?**
- ARHC 11 Summary Report:

*“The truth today is that an Arctic user still does not currently have a central or common way to find authoritative Arctic marine spatial data from ARHC’s HOs, nor do they have a total set (i.e. gaps in coverage) of usable web services available to them for the majority of themes they’ve asked for in various studies and surveys”.*
- At this point in time, there still exists a window of opportunity for the HOs of ARHC to be the **authorities on the Marine component to an Arctic SDI**, as they should, given their authority as HOs within their respective nations.
- However, without **both the existing coordination** (i.e. ARMSDIWG) coupled with the **potential ownership stake in ensuring requested hydrographic data is provided to Arctic users by the HO**, the users will continue to rely on other data and data providers as they already have begun to do.
- **Consideration for ARHC12: should ARHC make a commitment on the level of a Memorandum of Understanding (MoU) to delegate and assign responsibility among ARHC for leading aspects of the federated Arctic MSDI in a similar model to Arctic SDI (see list below)?**
  - Strategy, Communication and Value Creation, Operational Policies, Technical, Cloud & Cascading Service, Geoportal, Data

# Marine Spatial Data Infrastructure (MSDI)



# Invited Actions of ARHC

- Take note of the report.
- Consider mechanisms (such as an MoU) for **stronger commitment** to the HOs of ARHC to become the **authoritative facilitators of the Marine component to an Arctic SDI**.
- Review, discuss, and/or approve the updated **ARMSDIWG ToR** (provided under separate cover).
- Review, discuss, and/or approve the **ARMSDIWG Work Plan 2021-2026** (provided under separate cover).
- Take action as seen appropriate.

