**International Hydrographic Organization (IHO)**

**Marine Spatial Data Infrastructures Working Group (MSDIWG)**

MSDI Case Study Summary Information Sheet

**Case Study**

Arctic Regional Hydrographic Commission’s Arctic Regional Marine Spatial Data Infrastructures Working Group

**Case Study Type:** Other (MSDI-related Activity)

**Summary**

This case study is about the activities of the Arctic Regional Marine Spatial Data Infrastructures Working Group (ARMSDIWG) under the Arctic Regional Hydrographic Commission (ARHC).

The ARMSDIWG is the key coordinating body, under ARHC, for facilitating the access to Arctic marine geospatial data produced by the ARHC Members States and Associate Members, the International Hydrographic Organization (IHO), General Bathymetric Chart of the Oceans (GEBCO), and other networks throughout the Marine domain in order to allow broader use of hydrographic data.

The ARMSDIWG analyzes how its participating Hydrographic Offices, and the Marine domain in general, can make Arctic marine spatial data findable, accessible, interoperable and reusable, following the FAIR data principles. The ARMSDIWG accomplishes this by investigating best practices for leveraging currently available technologies, identifying applicable open geospatial standards from the IHO and the Open Geospatial Consortium (OGC), and addressing policies & governance for the participating nations to provide users discoverable, accessible, and interoperable marine geospatial data for the Arctic.

The ARMSDIWG also maintains a collaborative partnership with the Arctic Spatial Data Infrastructure cooperation (Arctic SDI), a cooperation based on a Memorandum of Understanding between the National Mapping Agencies of the eight Arctic countries, to provide both the terrestrial and marine foundations in a regional SDI. Together, Arctic SDI and the ARHC’s ARMSDIWG will facilitate an infrastructure that connects users, across domains, to the spatial data valued to support research, planning and decision making in the Arctic.

Currently, the ARMSDIWG is facilitating the reuse of data that has already been made available, but with an Arctic-regional focus. The limitations/restrictions of data reside at the original producer/distributor of the data.

The ARMSDIWG facilitates marine spatial data for the broadest use. The intended users are anyone with interest in accessing or using marine spatial data in the Arctic.

Increasing ocean accessibility in the Arctic yields a growth in maritime/marine activities for the region. Marine geospatial data is a valuable asset to enable those activities to advance the applicable sectors of society (e.g., academic/scientific research, natural resource exploration, fisheries management, emergency management, marine spatial planning). Hydrographic Offices (HOs) collect and store marine geospatial data for use on Safety of Navigation products. This source, marine geospatial data (e.g., bathymetry) maintained by the HOs, when made available, can benefit these Arctic activities for the greater advancement of society.

**Sources:** https://iho.int/en/arctic-rhc   
https://arctic-sdi.org/

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**Data Governance & Infrastructure Components Exemplified by Case Study:**

(Checked 🗹 components apply.)

Access, Data Sharing & Exchange

Data Assurance

Data Quality

Documentation

Information Control Technologies

Interoperability

Policy & Organization, Strategy

Quality Control Procedures

Standards

Storage

User Needs & Response