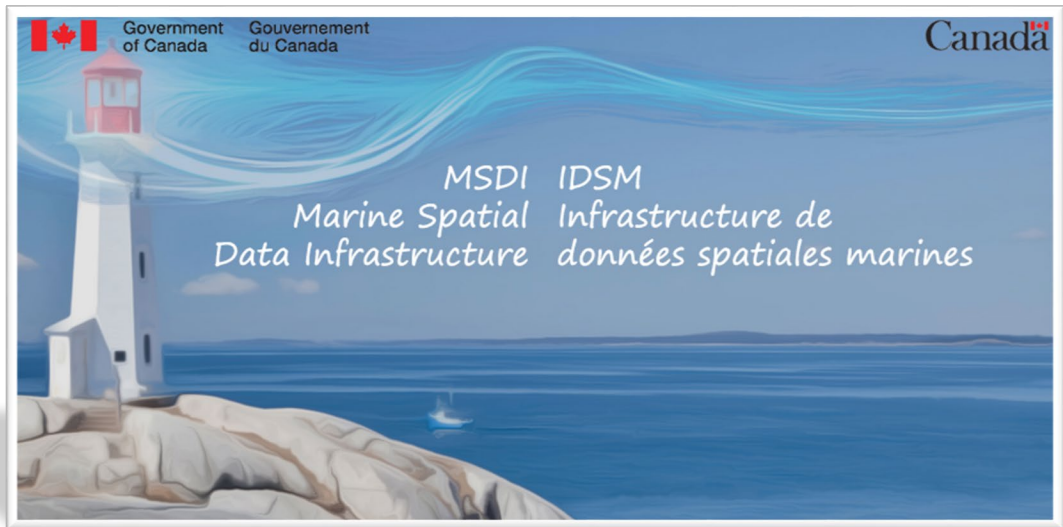




Canada's Marine Spatial Data Infrastructure



Presentation to the International Hydrographic Organization's
Marine Spatial Data Infrastructure Working Group

March 17, 2021



CHS 10-year Transformation

		Chapter
1		CHS Workforce and Workplace
2		Business Model Modernization
3		Data Acquisition Transformation
4		Database Transformation
5		Product Rationalization (Modernization)
6		Products to S-100 Services
7		Data Distribution
8		Communication

Aligns well with:

- IHO Strategic Plan
- IHO Roadmap for S-100 Implementation
- UN Decade of Ocean Science for Sustainable Development
- Gender and Diversity
- The Blue Economy



Moving from Products to services

- S-101 ENC
- S-102 Bathymetric Surface
- S-104 Water-level Information
- S-111 Surface Currents
- S-121 Maritime Limits and Boundaries
- S-131 Harbour Infrastructure
- **S-100 in MSDI for Blue Economy**
- S-100 In other Government Departments
- Undersea features



Status - Infrastructure

- 30 operational value added GIS applications.
- Development of 7 new GIS applications underway
- MSDI infrastructure supporting Marine Spatial Planning Atlases

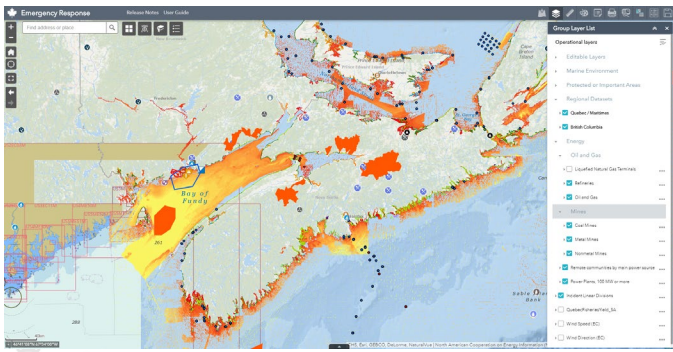
Available data and web mapping services*

MSDI	Open Data Canada	Open Maps Canada
340	358	312

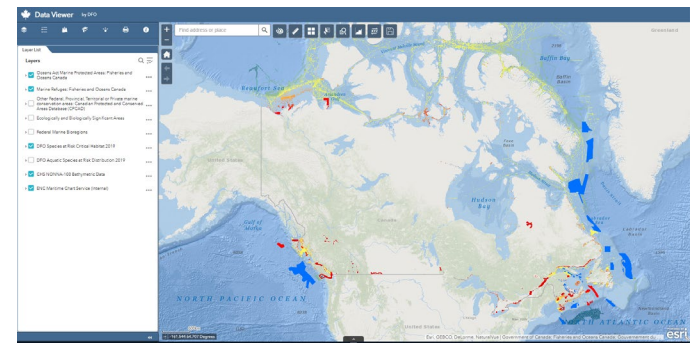


Example applications

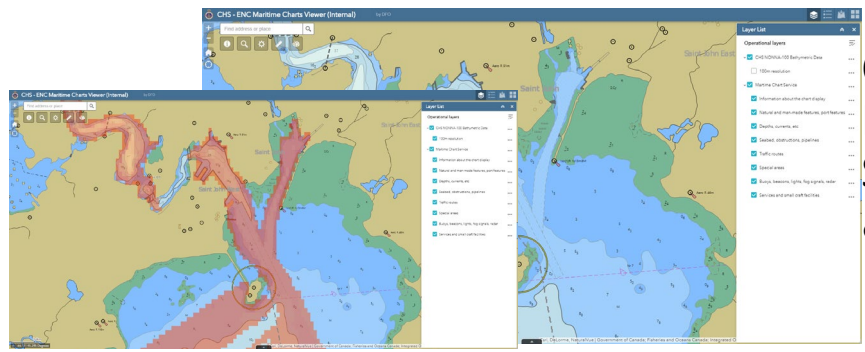
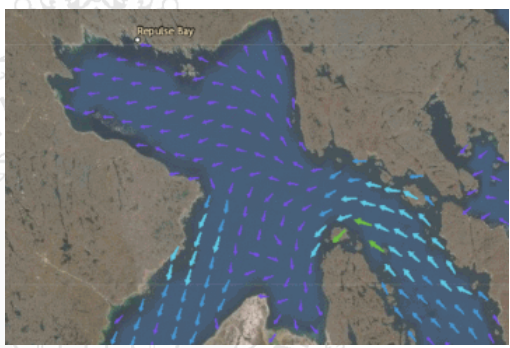
Environmental Spatial Emergency Response Application (ESpER)



DFO Data Viewer



Dynamic Surface Currents (S-111)

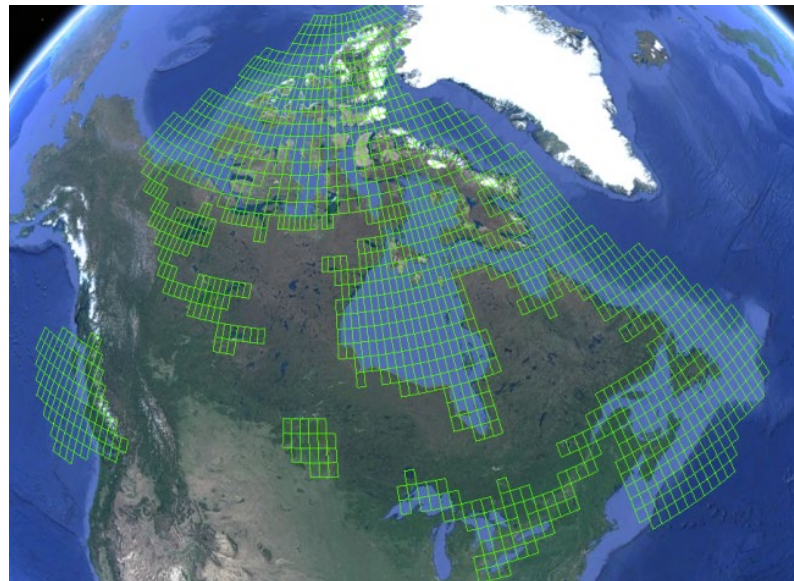


Canadian
Hydrographic
Service (S-57) WMS
& Basemap (S-102)



CHS NONNA – 100: Free and Public since October 2018

- The « NONNA » refers to **NON-NA**vigational.
- **CHS NONNA-100** products follow S-102 grid schema for the level 2 of S-102
- Contributes to the basemap in Canada's Marine Spatial Data Infrastructure (MSDI)



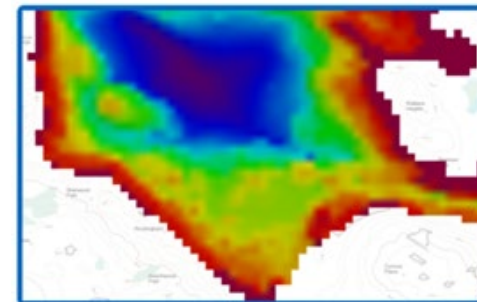
<https://open.canada.ca/data/en/dataset/d3881c4c-650d-4070-bf9b-1e00aabf0a1d>



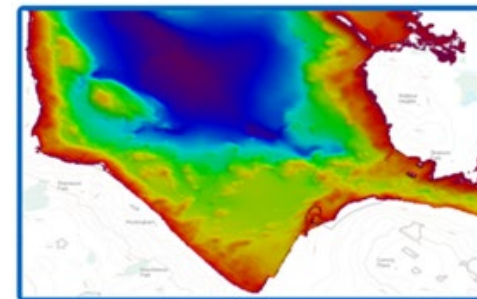


CHS NONNA-10: an improved, more accessible way to see beneath the surface

- The CHS NONNA-10, a consolidation of digital bathymetric sources managed by the CHS, was released on 24-Sep-2020 for **NON-NA**vigational use only.
- With its 10-metre resolution data, CHS NONNA-10 products are a **ten-fold improvement** over its data predecessor, CHS NONNA-100.
- Beyond the higher resolution, we are piloting a **new web-based portal** to host the data, making it easier than ever to find the datasets needed for non-navigational purposes.
- The CHS NONNA-10 data is accessible free of charge via the data portal, both to view or download in various formats and via WMS & WCS, to anyone interested in Canada's marine space.



CHS NONNA-100



CHS NONNA-10

<https://open.canada.ca/data/en/dataset/d3881c4c-650d-4070-bf9b-1e00aabf0a1d>



S-121 Standard development and implementation

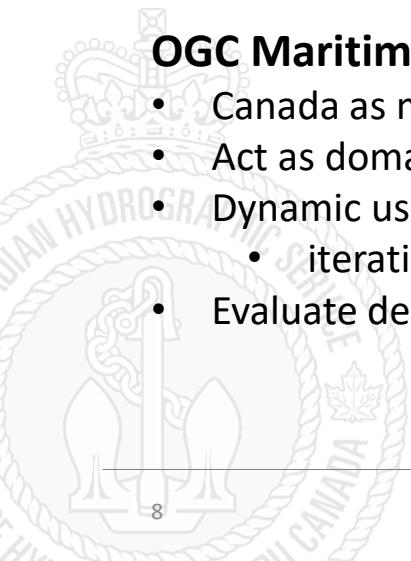
CHS/Canada contributions

IHO S-121 Project Team:

- S-121 v1.0: Collaboration, technical discussions, Standard development, testing.

OGC Maritime Limits & Boundaries pilot project:

- Canada as main sponsor: setting requirements
- Act as domain expert to guide the project
- Dynamic use of pilot results to build test data:
 - iterative testing/evaluation/update
- Evaluate deliverables





Questions ?



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