Canada’s Marine Spatial Data Infrastructure
CHS 10-year Transformation

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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

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<th>Available data and web mapping services*</th>
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<td>MSDI</td>
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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-NAvigational.

• **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-Navigational 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.

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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