DFO-Science Canadian Hydrographic Service (CHS)

Vancouver, BC, Canada

Denis Hains, Director General CHS & Hydrographer General of Canada
Overview

Canadian Hydrographic Service (CHS)

– Transformation;
– National Drivers;
– World Class Tanker Safety System (WCTSS) update;
– Products and Services;
– Canada’s Oceans Protection Plan (OPP);
– Commitments.
CHS Transformation

Vision:

To be a leader, world authority and supplier of *hydrospatial* (hydrographic geospatial) information.

Mission:

The Canadian Hydrographic Service (CHS) supports government priorities and meets its obligations by providing up-to-date, authoritative and standardised *hydrospatial* information.

BE: Data-Centric / Client-Driven / Innovative  FOR: Safety & Efficiency of Navigation
CHS National Drivers

Mandate Delivery through:

- National Planning & Priorities
- Innovation
  - Marine Spatial Data Infrastructure (MSDI)
  - Crowd-Source Bathymetry
  - Satellite-Derived Bathymetry
  - Autonomous Vehicles (AVs)
- Stakeholders Engagement
- Efficient & Agile organization
- Quality Management System
- Hydrographic Expertise of its workforce
World Class Tanker Safety System (WCTSS)

- Phase I focused on approaches to Kitimat (ending in March 2018)
  - 21 of the 25 new charts in multiple formats are released (2 more in 2017 + 2 in 2018)

- Phase II (ending March 2019) consisted of:
  - Hydrographic data acquisition and release of new and/or updated Electronic Navigation Charts (ENC) for 20 significant commercial ports and waterways.
  - 17 of 20 ports surveyed, 6 ENCs released.
World Class Tanker Safety System (WCTSS)

- In Phase II: Four pilot sites for dynamic tides and currents (Tides, Currents and Water Levels instrumentation + data, bathymetry, modelling, next generation service delivery)
- Test S-100 standard for the next generation of ENC and dynamic data services

- Phase III (ending in March 2020): Funding to acquire and install 4 Multi Beam Echo Sounders on Coast Guard Icebreakers by 2020, initial surveys for data collection & management + further planning of Northern Marine Transportation Corridor (NMTC) with TC and CCG.
Vancouver Harbour- Second Narrows
High Resolution Bathymetry

- Bathymetric Surface Product Specification S-102;
- More and more data is and will be “crowd-sourced” from 3\textsuperscript{rd} parties...
- Often sparse & corridors...
- Source Data and Quality Control challenges, Requirement for Category Zone of Confidence (CATZOC).
Canada’s Oceans Protection Plan (OPP)

November 7th, 2016 –
The Prime Minister of Canada announced a major $1.5B, 5 year investment for “Oceans Protection Plan”:


“A world-leading marine safety system that protects Canada’s coasts”.

The national Oceans Protection Plan will help Canada achieve a world-leading marine safety system for our country’s unique context that will increase the Government of Canada’s capacity to prevent and improve response to marine pollution incidents.

Working with partners and engaging Indigenous and coastal communities, the Government of Canada will develop regulations and other tools to better respond to local marine traffic issues. For example, it will:

1- Support enhanced sharing of marine traffic information with local communities in real-time;
2- Make navigation safer by providing modern hydrography and charting in key areas of high traffic commercial ports and waterways, dynamic products, and new navigational aids;
3- Improve marine traffic monitoring by opening new radar sites in key strategic locations on the West and East coasts improving marine safety in key traffic areas;
4- Improve availability of science-based expertise during incidents by placing additional emergency and enforcement officers on the Pacific and Atlantic coasts;
5- Strengthen the Polluter-Pays Principle by amending the Canadian Ship-source Oil Pollution Fund to ensure adequate industry-funded compensation is available for those affected by oil spills;
6- Set tougher requirements on industry to provide quicker action for any spills from a ship.
Canada’s Oceans Protection Plan (OPP)

• No details are confirmed yet in terms on how much, how and where OPP components will be executed...

• What “...Make navigation safer by providing modern hydrography and charting in key areas of high traffic commercial ports and waterways, dynamic products, and ...” would mean for CHS investments:

  1. Modern Hydrography and Charting in additional « over 20 Ports »;

  2. « Near Shore » Modern Hydrography and Charting in Key areas;

  3. « Dynamic Hydrographic Products » and Services related to Tides, Water Levels, Currents and High Resolution Hydrography in targeted sites;

  4. « Arctic » Modern Hydrography and Charting in Key areas.
Summary

CHS is committed to deliver its mandate and obligations in alignment with « eNavigation » directions:

- Deliver according to 5-year Oceans Protection Plan to help Canada achieve a world-leading marine safety system commitments when details funding is confirmed;

- “Data Centric / Client / Innovation” DRIVEN . . .
Thank you!
Merci!

For further information & questions please contact:
Mr. Denis Hains
613-990-6234
denis.hains@dfo-mpo.gc.ca
chsinfo@dfo-mpo.gc.ca
shcinfo@dfo-mpo.gc.ca