




Western Region eNavigation Sub- Committee Report



Western Region eNavigation meeting - Jan 12'18

- BC Ferries
- BC Coast Pilots
- BCIT Marine Campus
- Canadian Coast Guard
- Canadian Hydrographic Services
- Canadian Marine Pilots
- Fraser River Pilots
- Pacific Pilotage Authority
- Port of Vancouver
- Port of Prince Rupert
- Shipping Federation of Canada



eNavigation Conference, Seattle, Dec 6-7, 2017

- Regulations, Standards, and Policies for e-Navigation, Automation, and Cybersecurity
- Automation in the Operational Environment
- Cybersecurity and e-Navigation, Applied
- The Impact of Automation on Bridge Resource Management
- Dynamic Underwater Keel Clearance Project Update
- Technical Developments in Automation, Navigation and Cybersecurity
- Advances in Data Collection and Dissemination

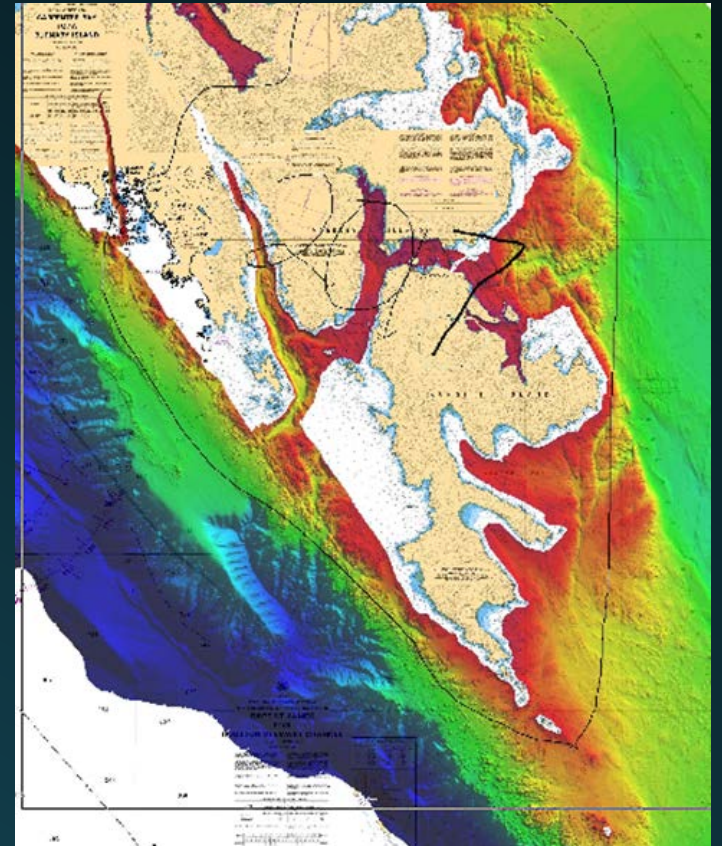
Canadian Coast Guard Update

- AIS Met/Hydro message
 - test locations
 - standardized display
 - survey regarding AIS display on ECDIS and PPUs
 - potential for transmitting air draft information
- AIS AtoN
 - testing reference points at Trail Island (near Victoria, BC)
- Port Collaborative Decision Making (CDM)



Canadian Hydrographic Services Update

- Additional hydrographic surveys using OPP funding
- Berthing scale ENC's
- Bathymetric Overlays
- Dynamic Products, including
 - o obtaining SMART buoy data to support navigation,
 - o phase in of dynamic tide & current e-navigation at Kitimat, Vancouver, and Fraser River.
 - o Develop S-100 e-nav services: bathymetry, tides, and currents.
 - o Develop dynamic web portal and web services to distribute e-navigational information
 - o Provide data to support e-navigation requirements



Vancouver Fraser Port Authority

- Water Level Stations (9)
- Tidal Current Stations – 2nd Narrows, future First Narrows
- Port eHub – real time data including future air draft calculator for CN's Second Narrows Rail Bridge
- Met/Hydro Stations – in collaboration with CHS
- Hydrographic Surveys





Vancouver Fraser Port Authority (con't)

1. First Narrows – Traffic Control Zone (TCZ-1):
 - Replace two existing Lions Gate Bridge sector lights with new channel centre-line sector light
 - Air gap sensors on Lions Gate Bridge
 - Current profiler (HDCP) installation on Lions Gate Bridge south pillar
 - TCZ boundary marker buoys (2)
 - Chart updates (i.e. TCZ boundaries, fishing area, one-way channel versus sectors, LGB vertical clearance)



Vancouver Fraser Port Authority (con't)

2. 2nd Narrows

- Eastbound / Westbound sector lights at Berry Point
- Visibility and fog sensor
- TCZ boundary marker buoy (1)
- Chart updates (i.e. TCZ boundaries)

3. Vancouver Harbour Chart Updates:

- Seaplane landing area (area alpha) / orange buoy
- Coal Harbour / VCC West / Canada Place Anchorage boundaries



Vancouver Fraser Port Authority (con't)

4. Other items:

- Quality assurance/maintenance of various gauges and AtoN's
- Chart updates in VFPA jurisdiction
- Anchorage 'O'

Port of Prince Rupert

- Assets from former projects including
 - Acoustic Doppler Current Profiler (ADCP)
 - Watchmate ODAS Buoy
 - Two x TRIAXYS Directional Wave Buoys
- Ridley Island/RoRo Ramp sensor (tide, current, weather) station
- Repairing sensors at Fairview container terminal





Pilots

Canadian Marine Pilots

- Change in Western representative
- Change in national Technical Committee Chair
- National coordination and engagement with CCG/CHS/EC

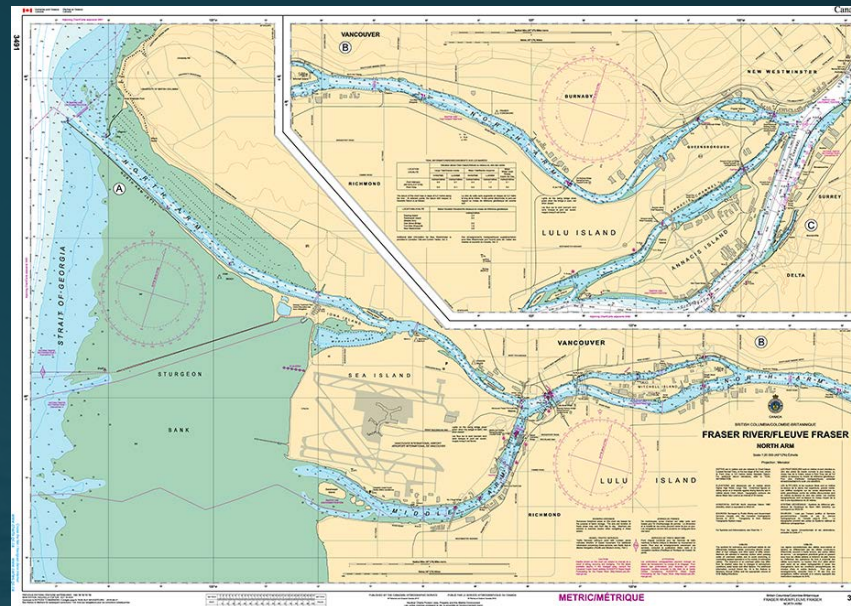
BC Coast Pilots

- Working with CCG to test AIS network
- Testing new PPU software and tablets
- Working with CHS on berthing scale charts
- Working with ports to obtain real time information

Pilots (con't)

Fraser River Pilots

- Testing AIS ATON network, and alternative PPU software
- Implementing real time tide and weather AIS support to assist as ship size increases in the limited navigation channel
- Working with CCG to standardize our MIO (Marine Information Overlay)



BC Ferries

- Challenges with seeing AIS ASM on bridge equipment
- Almost completed bridge updates to standardize the fleet
- Identified 2 highest risk areas in organization - ship-to-shore interface and navigating
- Current priority is navigation to ensure good navigation processes and good practice.



Oceans Network Canada

- Surface current and multi level current for Casey Point (Prince Rupert) and Inside Passage (4 areas)
- Acoustic monitoring for real time cetacean detection





Questions?