



Uncrewed Survey Vessels (USV) – Update from CHS



ARHC Virtual meeting November 2021

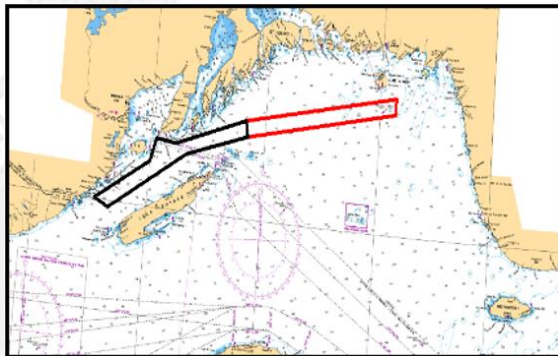


Chris Marshall – Regional Director

Ontario and Prairie, and Arctic Regions

Contracted Lake Superior USV survey

- Uncrewed Surface Vessel (USV)
- 1st year was pilot project to evaluate emerging technology for possible Arctic deployment
- 2nd of year of project, funding secured from Departmental Results Fund
- Vessels controlled from various locations in Europe --- Similar and rapidly evolving technologies coming to market– Contract awarded via competitive bid
- Collaboration with freshwater science to collect additional scientific data:
 - Weather; Chlorophyll; Backscatter; Fish Tag monitoring



Black boundary shows data collected in 2020.

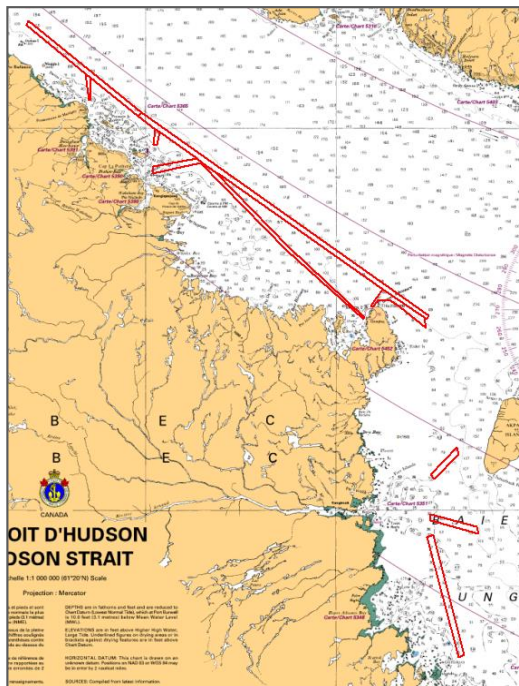
Red boundary shows data collected in 2021.



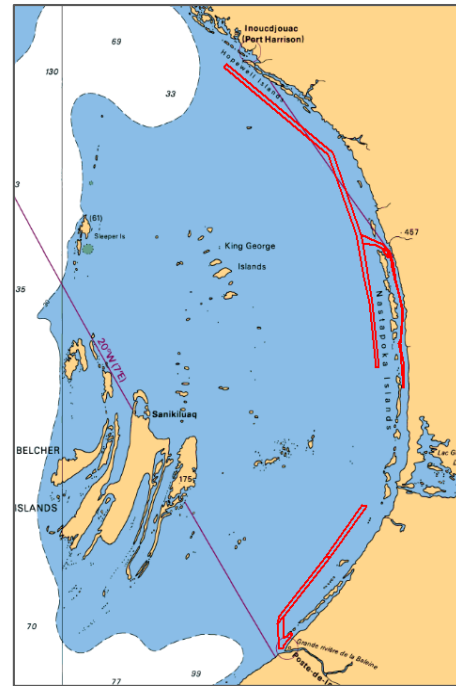


Contracted Arctic surveys

- Building off of pilot project in Lake Superior in 2020
- Arctic contracted surveys data collection deployed both a USV and ship platform
- Areas targeted were within Proposed Low Impact Shipping Corridors in an area with little modern and/or adequate bathymetry



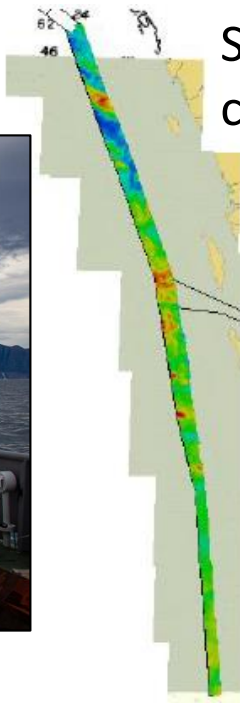
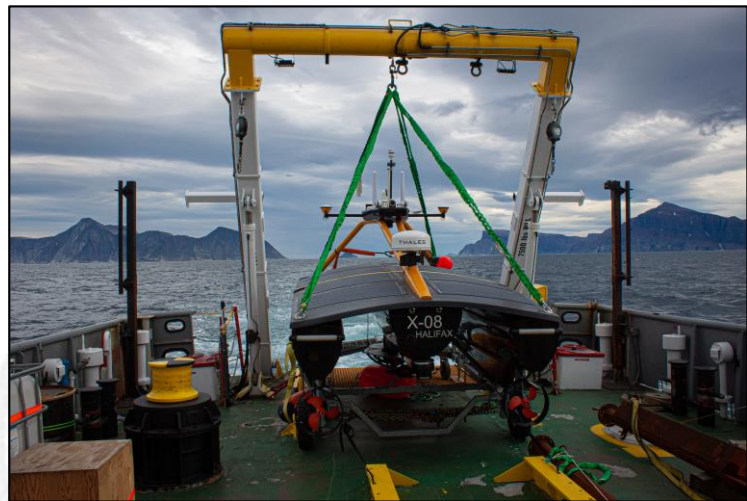
Ungava Bay and Hudson Strait



South Eastern Hudson Bay



Contracted Arctic surveys: Challenges



Successful project, however, there were challenges:

- All mandatory areas completed, however, optional areas were not
- Weather conditions in Ungava/Hudson Strait slowed progress
- COVID meant no community contact;
- Logistical issues shipping USV and refueling
- Mechanical issues with USV



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Image of USV CyberDeck Display

