

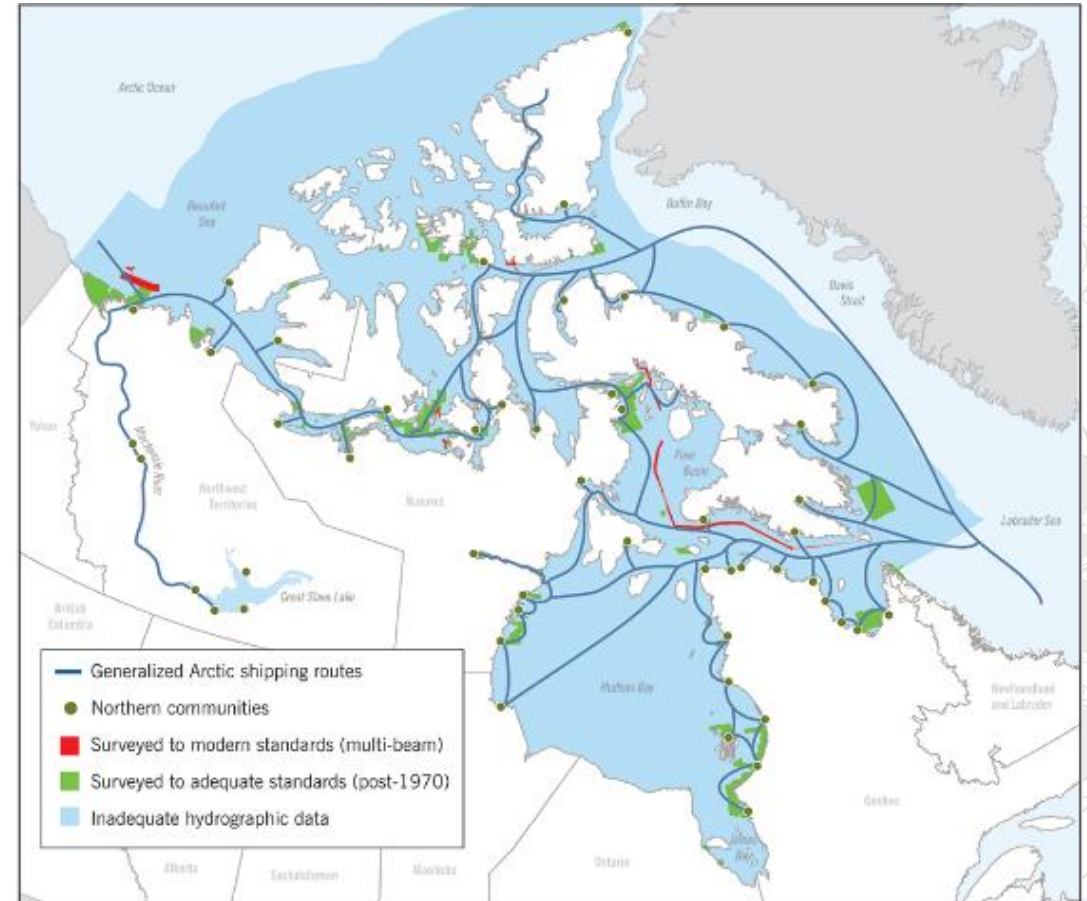
Arctic Navigation – Challenges & Opportunities

Neil O'Rourke, Assistant Commissioner, Arctic Region



Canadian Arctic

- Size and vastness of the Canadian Arctic:
 - 162,000 km coastline / over 60% of Canada's coast within Inuit Nunangat
- Over 80 Indigenous communities with over 80,000 people (2016 Census)
- Approx. 15% of the Arctic's total navigable waters surveyed to modern standards
- Climate change is having important impacts on navigation
- More vessel traffic increases the risk of incidents in remote locations with limited response capabilities

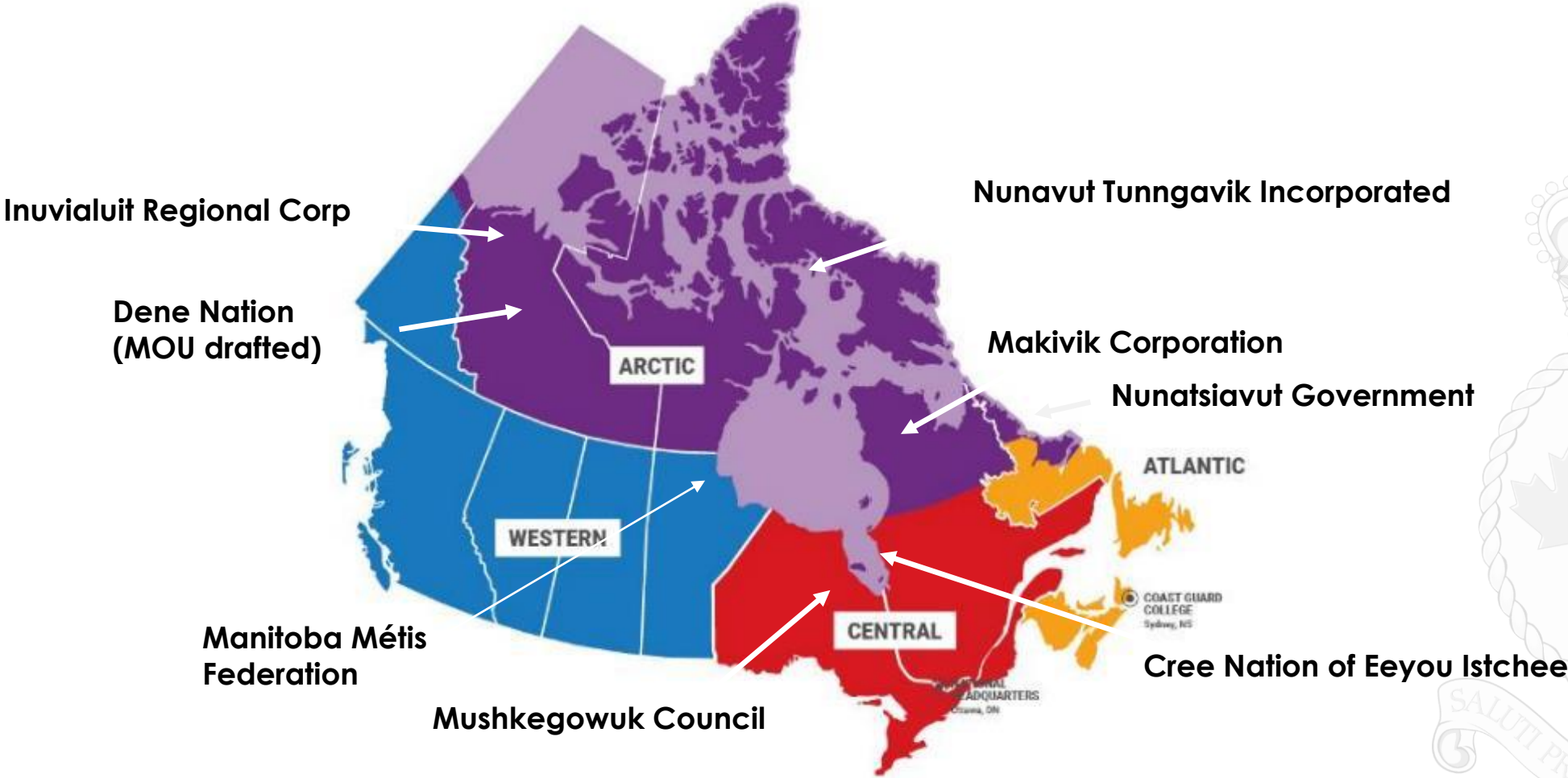


Advancing Priorities Through Governance

- Advancing reconciliation through distinction-based approach to engagement & collaboration
- Arctic and Northern Policy Framework (2019) – guides federal approach to address Arctic & Northern issues, activities, & investments through 2030
- Inuit Crown Partnership Committee (ICPC) – advances shared priorities between Inuit and GoC
- Regional Governance Frameworks with Land Claim Organizations & Inuit, First Nations and Métis governments and organizations
- Regional Governance Frameworks:
 - Approved Terms of Reference with Inuit Tapiriit Kanatami (ITK) and ICPC for Inuit Nunangat Regional Governance Framework



Governance in the Arctic Region



Advancing the Arctic Region 2019-2021

2019

- 2+ years of engagement with Inuit, First Nation & Métis governments & organisations, provinces & territories & internally
- Provided What We Heard report to Inuit, First Nations and Métis governments and organizations
- \$750K in Contribution Agreements to support community priorities (FY 2019-20)

2020

- Re-naming of CCG & DFO regions; internal realignment of resources; transfer of MCTS & Aids to Navigation
- Hired new Northern staff including 7 Inuit Community Engagement Coordinators
- Advanced relationships & agreements with circumpolar countries
- Signed Cooperation Plan between CCG and Danish Defense Forces JACO

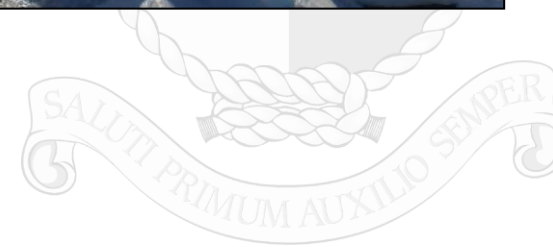
2021

- Boundary announcement
- Transfer of programs reporting to Arctic Region
- Completion of first season using new operational reporting model
- CCG Central Region's ROC & Ice Desk maintained roles in collaboration with AR - ER, MCTS, AtoN
- IM and Fleet-service delivery agreement with Atlantic, Central & Western Region
- MOU signed with CCG and UK RN
- On-water exercise with CCGAR and USCG D17
- In process of hiring 6 ER staff in Hay River & Iqaluit



Operating in the Arctic Region

- Disproportionate climate change impact on Arctic:
 - Unpredictable climate & ice conditions
 - Culturally & ecologically sensitive areas increasingly accessible to new & more users
- Region inaccessible by water for much of the year, but that is changing
- Reliance on CCG fleet to access remote areas / CCG is the Government of Canada's civilian fleet
- Limited connectivity & infrastructure to support operations
- Covid-19 impacts on operations & local communities
- Collaboration & coordination with local & Indigenous communities



Aids to Navigation (AtoN) Overview

- As of June 2020, AtoN reports through Arctic Region
- Covid-19 delayed site work for Chesterfield Inlet & Puvirnituaq
- CCGS *Dumit* & *Eckaloo* conducted annual AtoN program on Mackenzie River & Great Slave Lake to support community resupply
 - Water levels down from 2020; still higher than average
 - *Eckaloo*: 6172 Statute Miles; 1301 Floating Aids handled; 206 Fixed Aids serviced.
 - *Dumit*: 5288 Statute Miles; 880 Floating Aids handled; 85 Fixed Aids serviced.
- Chesterfield Inlet bathymetric survey completed with support from CHS



Arctic Marine Advisory Board & AtoN Top 10 Priorities

- Arctic Marine Advisory Board (AMAB) has E-Navigation, Charting & AtoN Subcommittee
- Subcommittee established to advise AMAB on AtoN & marine charts required to support commercial shipping in Canadian Arctic waters
- Includes CCG, CHS, TC, & regional industry representatives to provide advice & help to identify priorities
- Top ten priorities for reviews of AtoNs in Arctic Region:
 - Chesterfield Inlet
 - Puvirnituaq
 - Kuujjuarapik
 - Simpson Strait to Beads Island
 - Beads Island to Taloyoak
 - Arviat
 - Kangirsuk
 - Rankin Inlet
 - Kangiksualujjuaq
 - Kimmirut

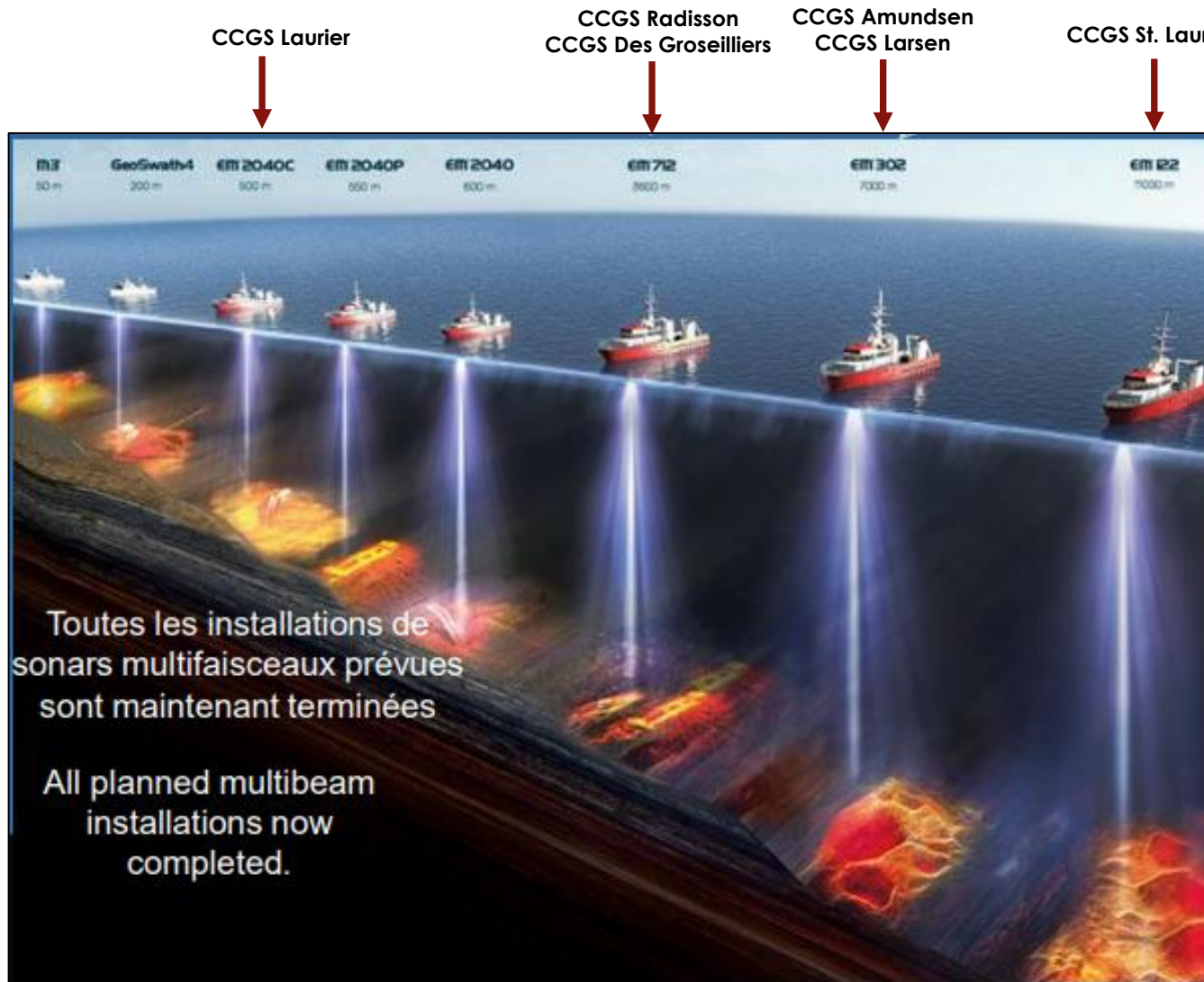


Canadian Hydrographic Service

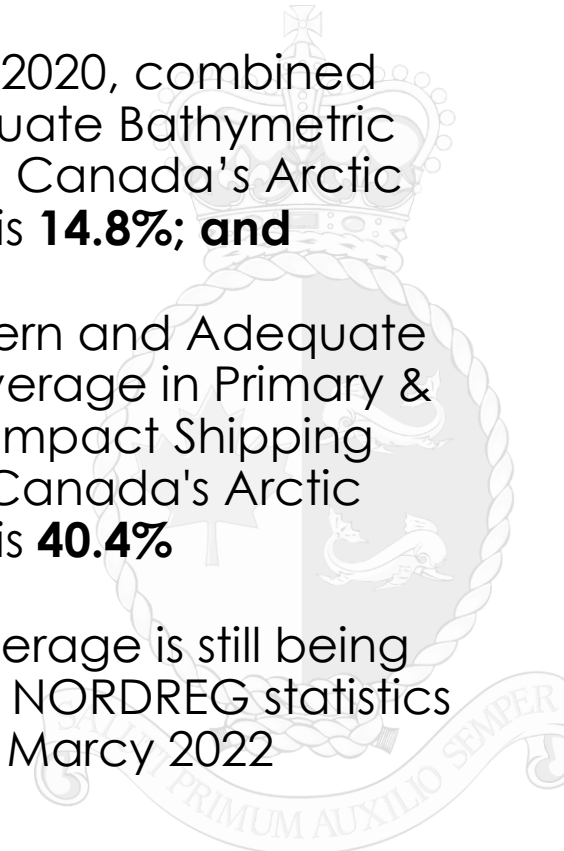
- CHS Bathymetric Data Acquisition occurred in Low Impact Navigation Corridors for 3 of 5 planned icebreaker programs:
 - **CCGS Sir Wilfrid Laurier**- Western Arctic (Coronation Gulf to Victoria Strait)
 - **CCGS Des Groseilliers**- Eastern Lower Arctic (Frobisher Bay, Ungava Bay & Hudson Strait)
 - **CCGS Louis St. Laurent**- Western, High and Lower Eastern Arctic
 - CCGS Pierre Radisson & CCGS Henry Larsen recalled due to engineering issues and engineering refit delays, respectively
- Despite cancellation of two CCGS icebreaker programs, extension of primary commitments for CCGS Des Groseilliers & CCGS Louis St. Laurent enabled completion of CHS targeted program in Ungava Bay



Canadian Hydrographic Service



- A total **31,398km² of bathymetric coverage** was acquired for the 2021 season using CCG platforms
- As of the end of 2020, combined Modern & Adequate Bathymetric Coverage within Canada's Arctic NORDREG Area is **14.8%; and**
- Combined Modern and Adequate Bathymetric Coverage in Primary & Secondary Low-Impact Shipping Corridors within Canada's Arctic NORDREG Area is **40.4%**
- 2021 season coverage is still being validated – 2021 NORDREG statistics will be available Marcy 2022



Northern Low-Impact Shipping Corridors

- Corridors initiative announced in 2016 as part of the Oceans Protection Plan
- Co-led by TC and CCG, with support of the CHS
- Two main objectives:
 - Develop governance framework to support implementation and management of shipping corridors in the North
 - Identify sensitive geographic areas to mitigate the socio-environmental impacts of shipping
- Phase I Engagement: TC and CCG met with over 20 partners in 2018-19
 - Common Themes: inclusive governance framework, reflect regional concerns, flexibility to respond quickly
- Phase II engagement to begin winter 2022
- Objectives of Phase II include in-depth discussions on:
 - Assessing governance models and what a governance framework could look like
 - Identifying priority geographic areas using charts and maps with CHS



Arctic Region Key Priorities

- Advance reconciliation while improving operational readiness & marine safety
- Formalize regional governance frameworks to supplement the Inuit Nunangat governance model established with ITK and DFO
- Continue recruiting Inuit, First Nations & Métis members into CCG
- Planning for infrastructure and service requirements to support increases in vessel traffic, climate change and CCG Fleet renewal
- Continue looking at alternate and innovative service delivery models for the Arctic



Thank you (English) | Merci (French)

Mársi (Chipewyan) | Kinanāskomitin (Cree), Meegwetch (Cree)
Hajj' (Gwich'in) | Matna (Inuktitut) Quana (Inuinnaqtun)
Qujannamiik (Inuktitut) Nakurmiik (Inuktitut) | Quyanainni (Inuvialuktun)
Máhsí (North Slavey) | Máhsí (South Slavey)
Mahsí (Tlicho) | Gunalchéesh (Tlingit / Tagish) Kwāñāšchis/Shāw níthān
(Southern Tutchone) Máhsin cho (Northern Tutchone)
Tsin'jj choh (Upper Tanana) | Sógá sénlá' (Kaska)



2021 Arctic Operational Season Summary

- SAR: 68 SAR taskings in Arctic waters responded to by CCG or CCG Auxiliary units, and includes 3 SAR responses by IRB North
- Ice: 58 commercial escorts completed
- Inshore Rescue Boat North (Rankin Inlet): from Jun 23 to Sep 7, 4 training exercises, 3 SAR case responses and 854.3 nautical miles patrolled
- 150 vessels completed 1079 voyages: 39 bulkers, 23 fishing vessels, 26 general cargo vessels, 1 navy vessel, 1 private icebreaker, 1 pleasure craft, 10 research vessels, 16 tankers, 17 tugs, 1 exercise vessel
- MCTS Iqaluit: in service from May 25 to Dec 20
 - Provided support to more than 160 vessels including CCG ships, cargo ships, tankers, bulk carriers, and CCG Auxiliaries and RCMP SAR units.
 - 83 marine occurrence reports; 473 NAVWARN issued.
- 6 Canadian Hydrographic Service missions totaling 146 mission days in an amended season using 3 CCG icebreakers
 - 4 additional missions (100 mission days) were cancelled due to CCG operational constraints
- ER: 38 reports received and assessed; 25 cases required enhanced monitoring or intervention

