



Fisheries and Oceans
Canada

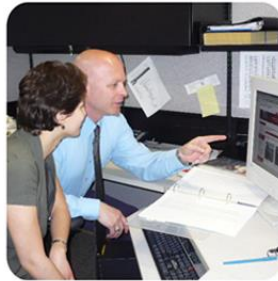
Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne



Safety First, Service Always



Canadian Coast Guard Perspectives on the Future in the Canadian Arctic

Neil O'Rourke

Senior Director, Safe Shipping and Economic Industry Intelligence

Canadian Coast Guard

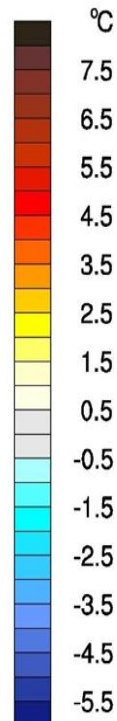
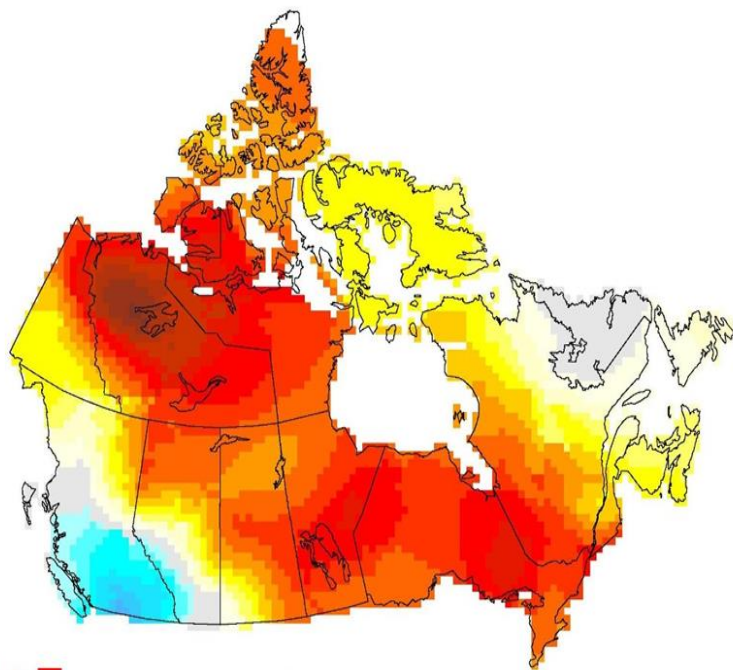
Arctic Shipping Forum North America

Canada 

Climate Change in the Arctic



Temperature departures from the 1961–1990 average – winter 2016/2017

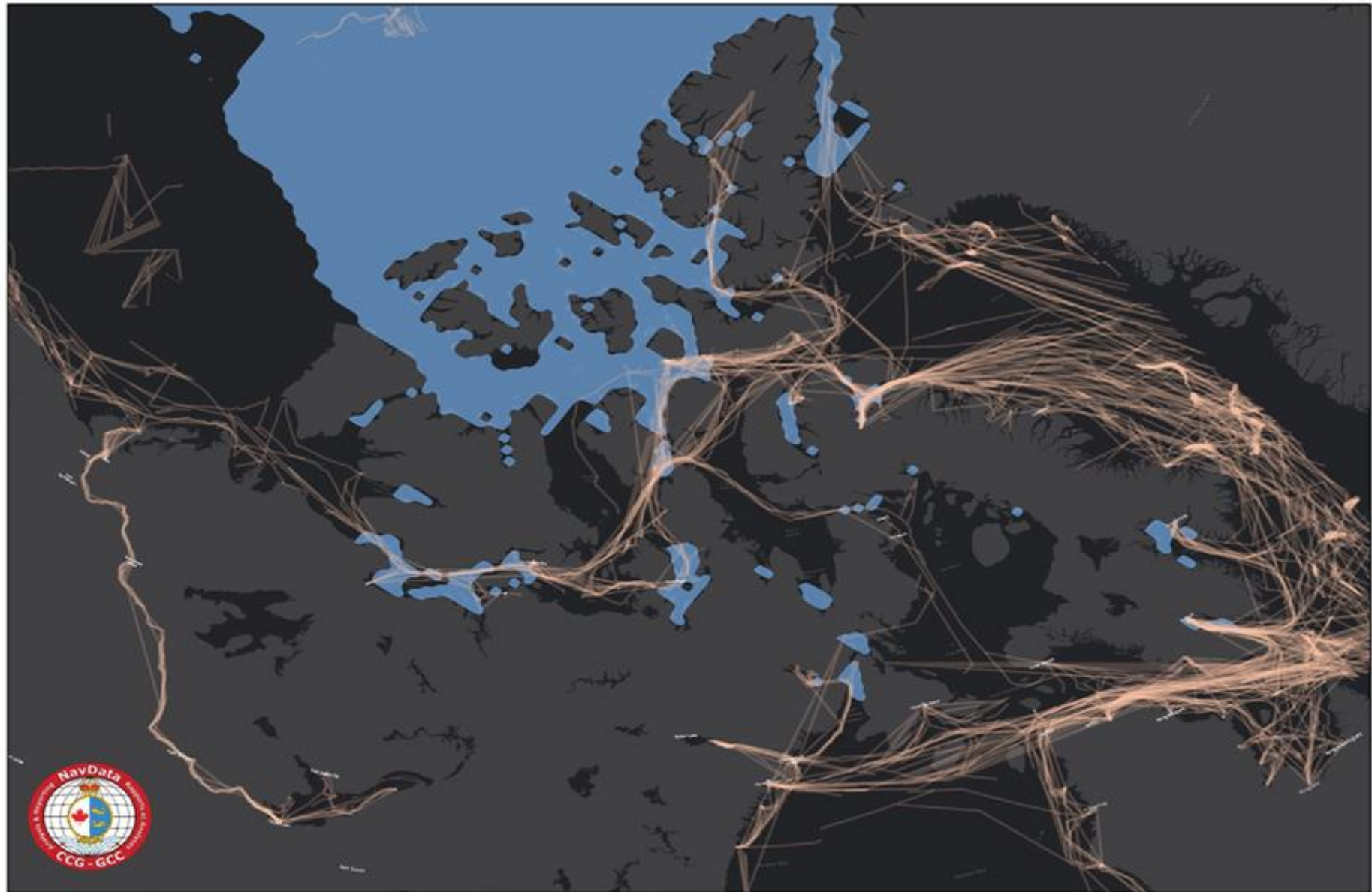


 Environment and
Climate Change Canada

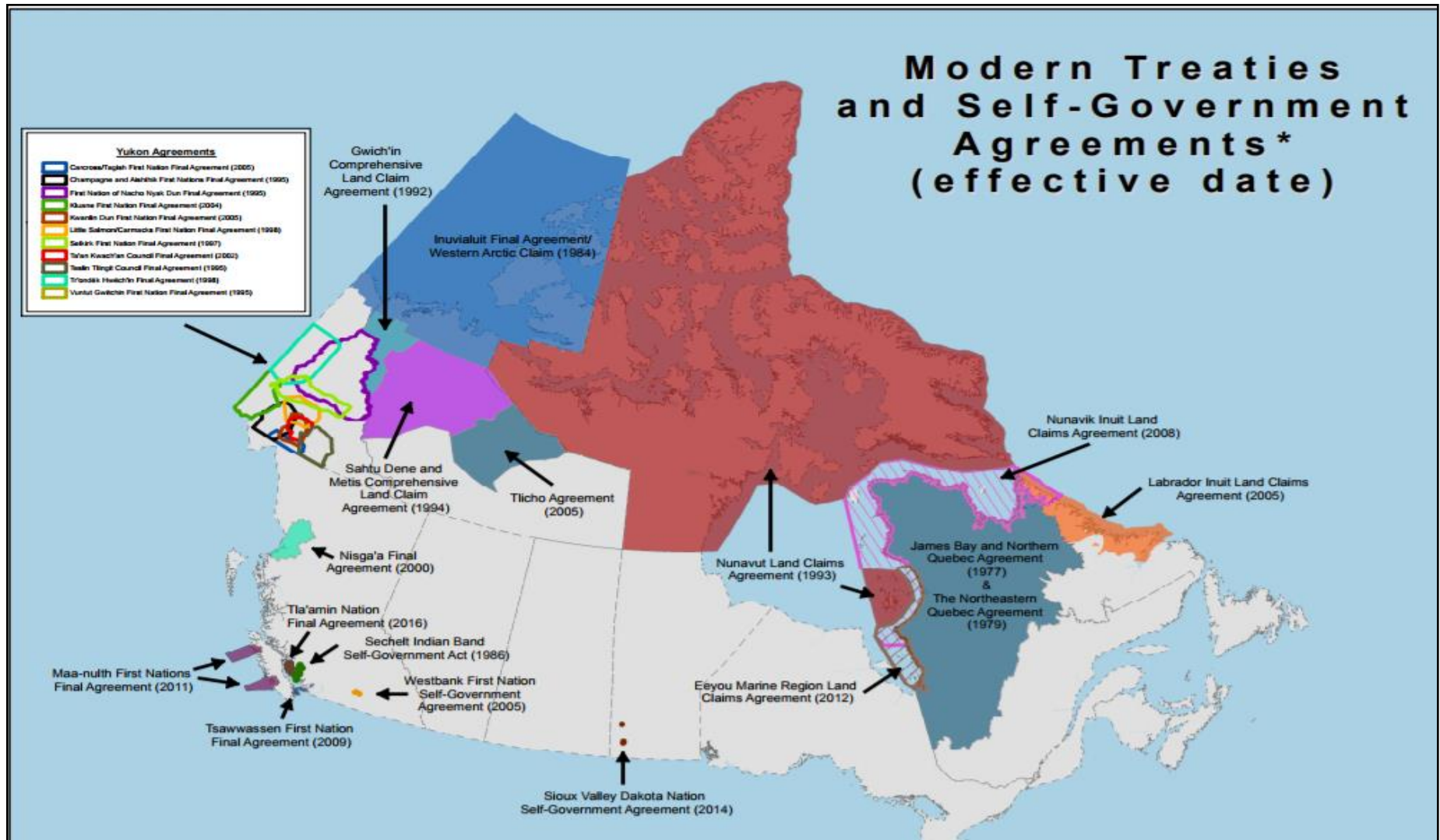
Environnement et
Changement climatique Canada



Traffic Patterns and Sea Ice Data - 2016



Indigenous Governance in the Canadian Arctic



Canadian Coast Guard Arctic Services



PREVENTION

- Aids to Navigation
- Vessel Traffic Management
- Ice Information



Canadian Coast Guard Arctic Services



RESPONSE

- Search and Rescue
- Environmental Response
- Icebreaking Escorts
- MCTS Safety Services



Canadian Coast Guard in the Arctic



Legend

- ★ Main Base
- (i) MCTS Centre
- CCGA Units
- ER Depot
- Rapid Air Transportable (RAT) cache
- Arctic Community Pack (ACP)

Fixed and Floating Aids

Mackenzie River and Great Slave Lake

656 fixed aids and 931 floating

Western Arctic

145 fixed aids and 17 buoys

Eastern Arctic

173 fixed and 8 buoys

MCTS Towers

50 owned by the Coast Guard
20-30 rented by the Coast Guard*

Available Arctic Fleet

Heavy Icebreakers

CCGS Terry Fox (Atlantic)
CCGS Louis S. St-Laurent (Atlantic)

Medium Icebreakers

CCGS Amundsen (C&A)
CCGS Henry Larsen (Atlantic)
CCGS Des Groseilliers (C&A)
CCGS Pierre-Radisson (C&A)
CCGS Sir Wilfrid Laurier (Western)

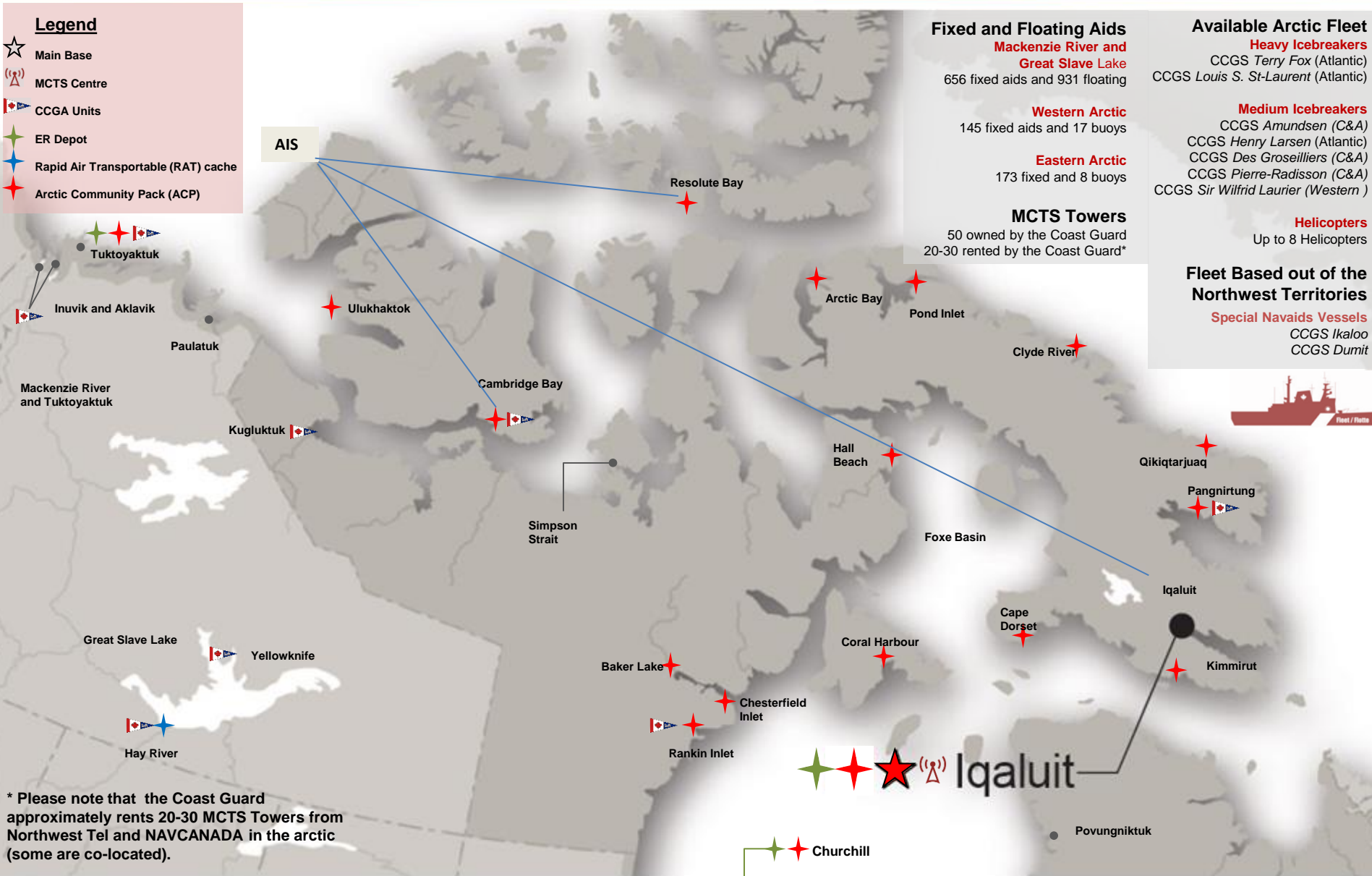
Helicopters

Up to 8 Helicopters

Fleet Based out of the Northwest Territories

Special Navaisds Vessels

CCGS Ikaloo
CCGS Dumit



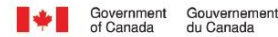
* Please note that the Coast Guard approximately rents 20-30 MCTS Towers from Northwest Tel and NAVCANADA in the arctic (some are co-located).

Oceans Protection Plan and the Arctic



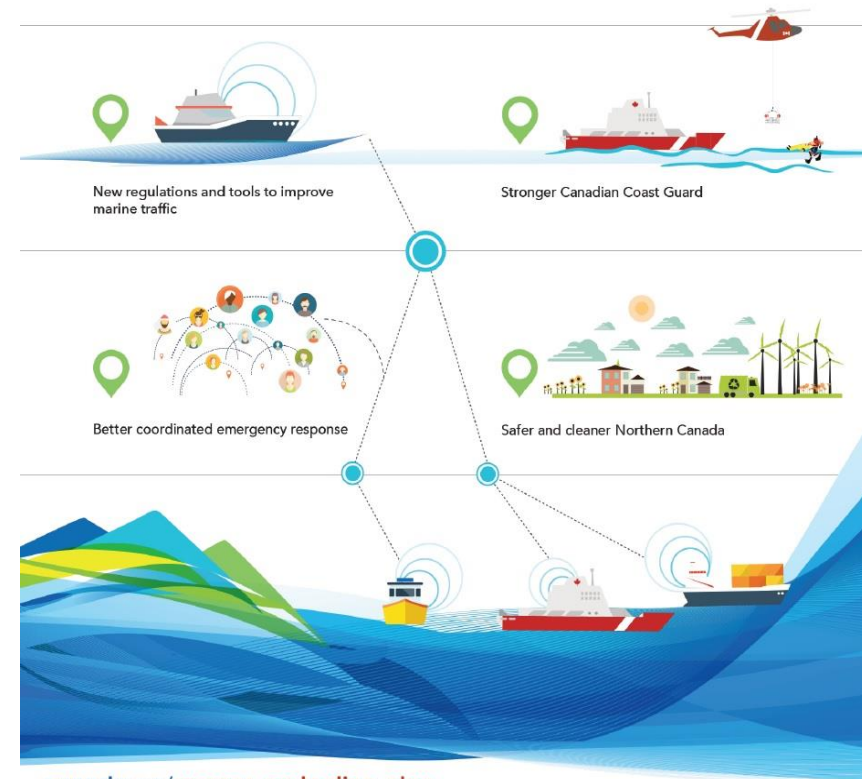
An Investment in the Future

- **Coast Guard Arctic Auxiliary units**, supported by the **Indigenous Community Boats Volunteer Program**
- **Inshore Rescue Boat station** in Rankin Inlet
- **Increased icebreaker presence**
- **Emergency Tow Kits** placed on all major Coast Guard Vessels
- **Risk-based Analysis of Maritime Search and Rescue Delivery**
- **Marine Awareness Information System**
- **Increase in personnel at MCTS Iqaluit**



A world-leading marine safety system

\$1.5 billion national Oceans Protection Plan to improve marine safety and responsible shipping, protect Canada's marine environment, and offer new possibilities for Indigenous and coastal communities.



Enhancing Indigenous Partnership



Northern Low Impact Shipping Corridors

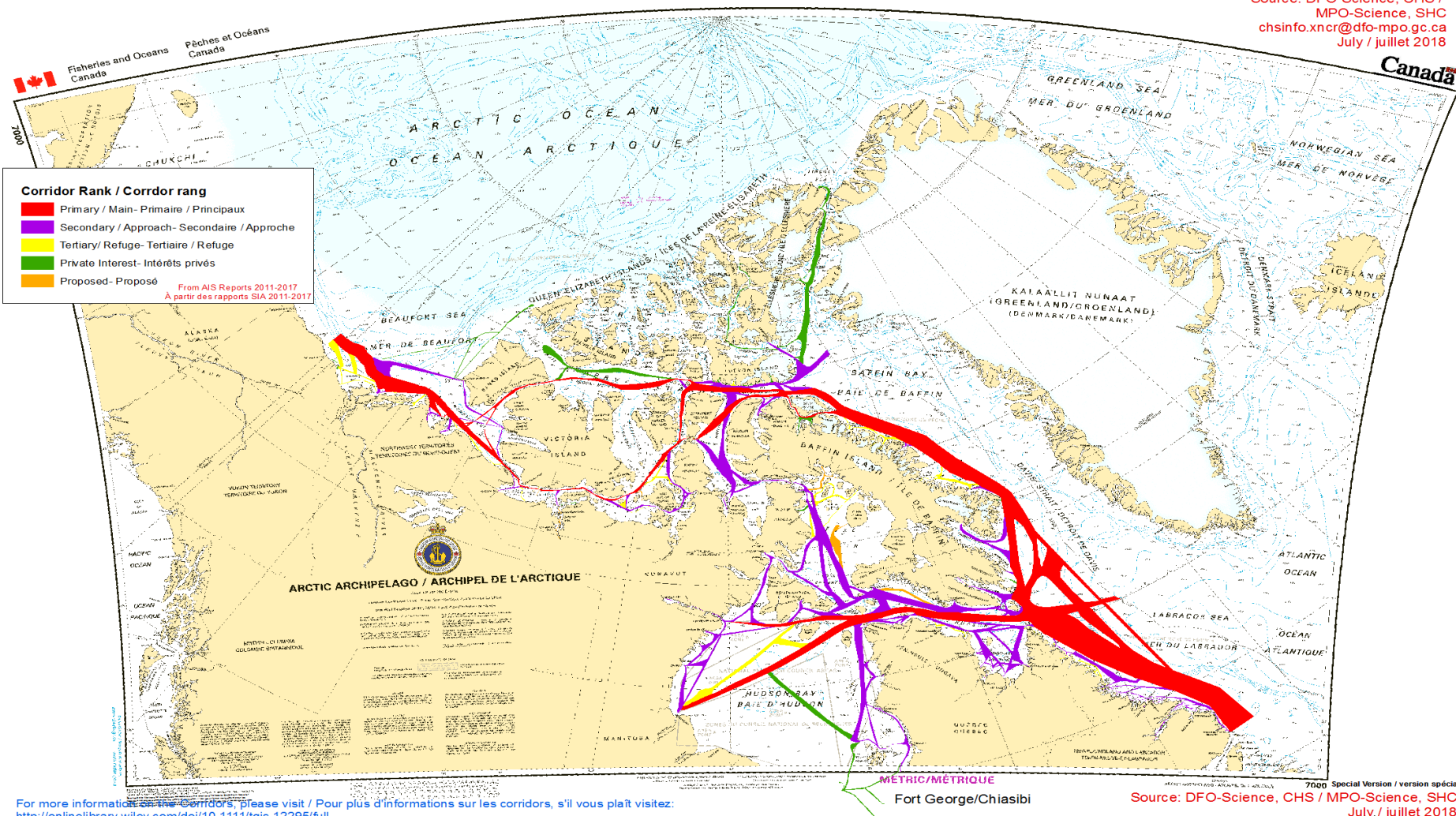


Northern Low Impact Shipping Corridors / Corridors de navigation nordiques à faible impact

Total area of water inside the NORDREG: 3,749,856km²
Superficie totale de l'eau dans la zone NORDREG : 3,749,856km²

Corridor Coverage: 453,638 km² (12.10%)
Couverture des corridors: 453,638 km² (12.10%)

Source: DFO-Science, CHS /
MPO-Science, SHC
chsinfo.xncr@dfo-mpo.gc.ca
July / juillet 2018



Engaging Northerners: what we have heard



Maintaining Icebreaking Capacity



- The federal government has signed a CAD \$610-million contract to acquire and convert three icebreakers for use by the Coast Guard.
- These ships will provide interim capability for the Coast Guard, while replacement vessels are built under the National Shipbuilding Strategy.
- The Icebreakers have been procured from Viking Supply Ships AS, and will be converted at the Chantier Davie Shipyard in Lévis, Quebec.



Class
2
Medium
Icebreakers



Conversion



Vessel names	Tor Viking II Balder Viking Vidar Viking
Built	2000 (Norway)
Classification	DNV
Ice-Class	Polar Class 4
Length	84 meters
Beam	18 meters
Helicopter	Yes + Hangar
Crane	1 x 25t SWL
Towage	200t BP
Power	18,300 HP / 13.4 MW
Propulsion	Conventional + Retractable Thrusters
Dynamic Positioning	DP 2 (AUT-R)

International Partnerships



Bilateral Engagement:

- United States Coast Guard
- Joint Arctic Command – Danish Defence
- Norwegian Coastal Administration
- Other Arctic Partners



International Partnerships



Multilateral Engagement:

- Arctic Coast Guard Forums (ACGF)
- Arctic Council - Emergency Prevention, Preparedness and Response (EPPR) & Protection of the Arctic Marine Environment (PAME) working groups.
- International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA)



International Collaboration: Arctic Sea Routes

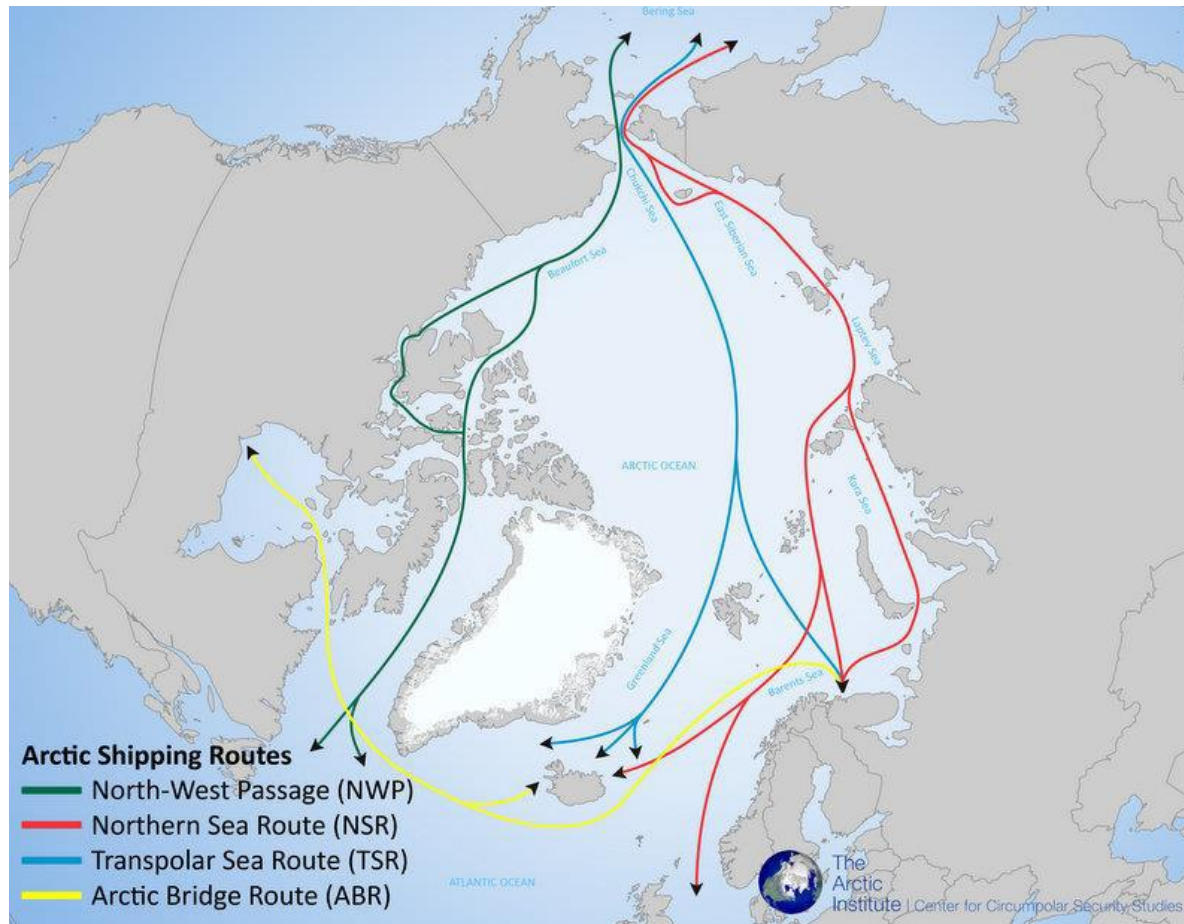


Figure 6: Main Arctic Shipping Routes (Source: The Arctic Institute)

- Northern Sea Route (NSR) along the Siberian Coast from Murmansk (Russia) to Cape Dezhnev in Bering Strait;
- Northwest Passage (NWP) through the Canadian Arctic Archipelago and the Arctic Bridge (AB) from Canada (St. John's, Newfoundland, Canada) to Europe (Aberdeen, UK);
- Transpolar Sea Route (TSR) from Europe (Aberdeen, UK) via Fram Strait across the North Pole to Bering Strait.

Canadian Coast Guard's Future in the Arctic



**Service in the North,
for the North,
from the North.**



Source: Oceans North



Safety First, Service Always

