



LOOKING **NORTH**



Northern Marine Transportation Corridors

Purpose of Presentation

- To provide an overview of the Northern Marine Transportation Corridors (Corridors).
- Hear your views, input and feedback on:
 - the concept of the Corridors as a guide for decision-making relating to shipping and marine services;
 - the prioritization of marine services;
 - any local concerns; and
 - benefitting from local and traditional knowledge regarding routes that have been identified.

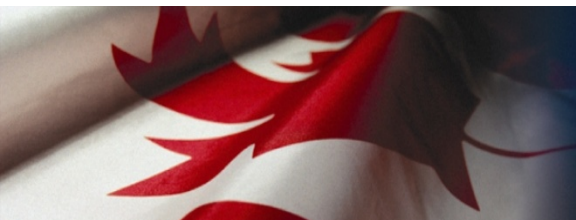


Ship Safety in Canada's North

- Canada's regime for Arctic marine transportation has been in place for over 40 years
- Arctic-specific Acts and regulations that apply to the North include:
 - Arctic Waters Pollution Prevention Act
 - Arctic Shipping Pollution Prevention Regulations
 - Northern Canada Vessel Traffic Services Zone
- The Government of Canada ensures that those operating in the Arctic have the certifications, experience and knowledge required for safe operations.

Shipping in Canada's North

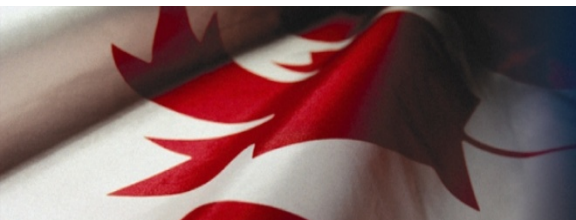
- The impacts of shipping on northern marine ecosystems are not always well understood.
- The impacts of climate change on transportation infrastructure are especially acute in the North.
- Demand for marine transportation services in the North is expected to grow.



Residents of the North

Marine shipping plays a critical role in:

- resupplying communities in the North
- enabling economic development, including resource development.



Services Providers and Resource Developers

- Marine operators and resource developers in the North contend with significantly more challenging conditions than elsewhere in Canada
 - extreme cold
 - short shipping season
 - changing climate
 - extreme tides
 - sensitive ecosystem
 - limited infrastructure and capacity



Northern Marine Transportation Corridors: Policy Framework

The Corridors policy framework would guide federal decision making and help prioritize:

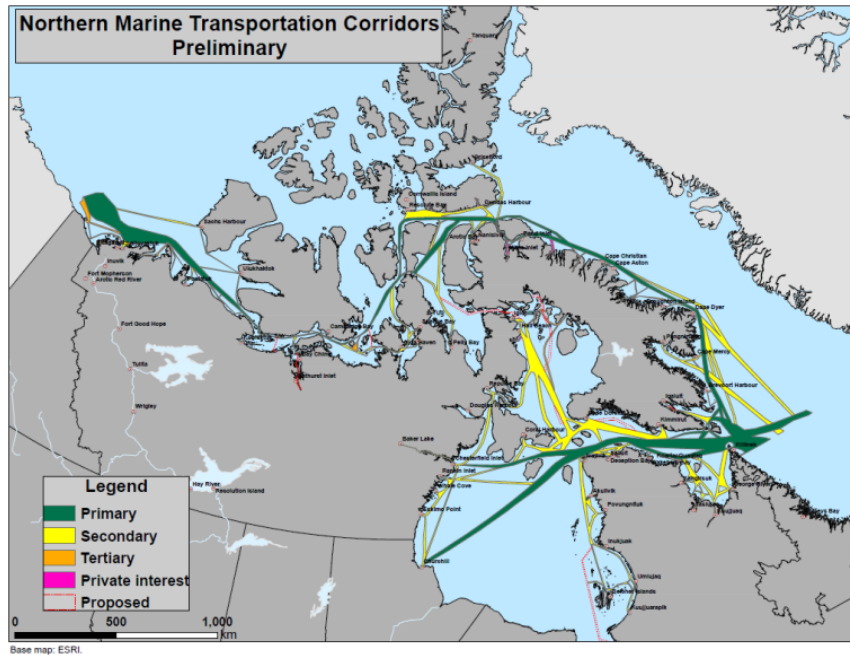
- navigational services
- marine infrastructure investment and development to achieve the highest benefit to surrounding communities.



Implementation of the Corridors

What are Corridors?

- Transportation routes within which navigational services such as hydrography, icebreaking and aids to navigation are prioritized

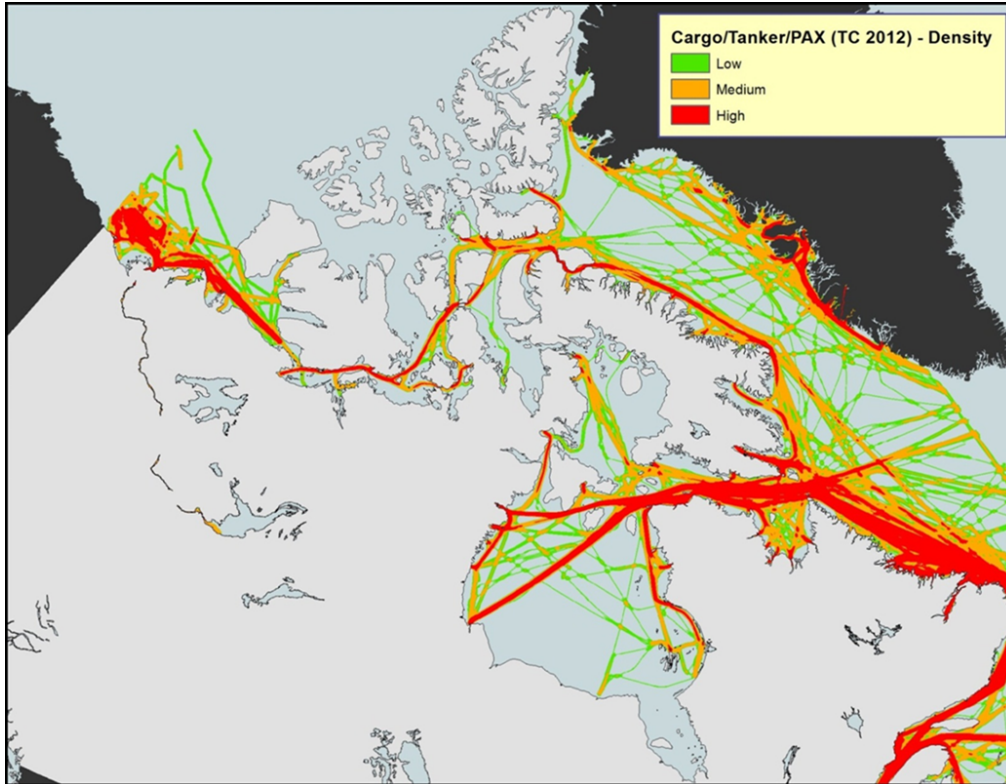


Implementation of the Corridors concept will:

- Enhance marine navigation safety in the North, provide greater predictability for mariners and ensure Corridors are developed to have as little impact as possible on the environment.
- Provide a pragmatic planning framework for future Arctic investments

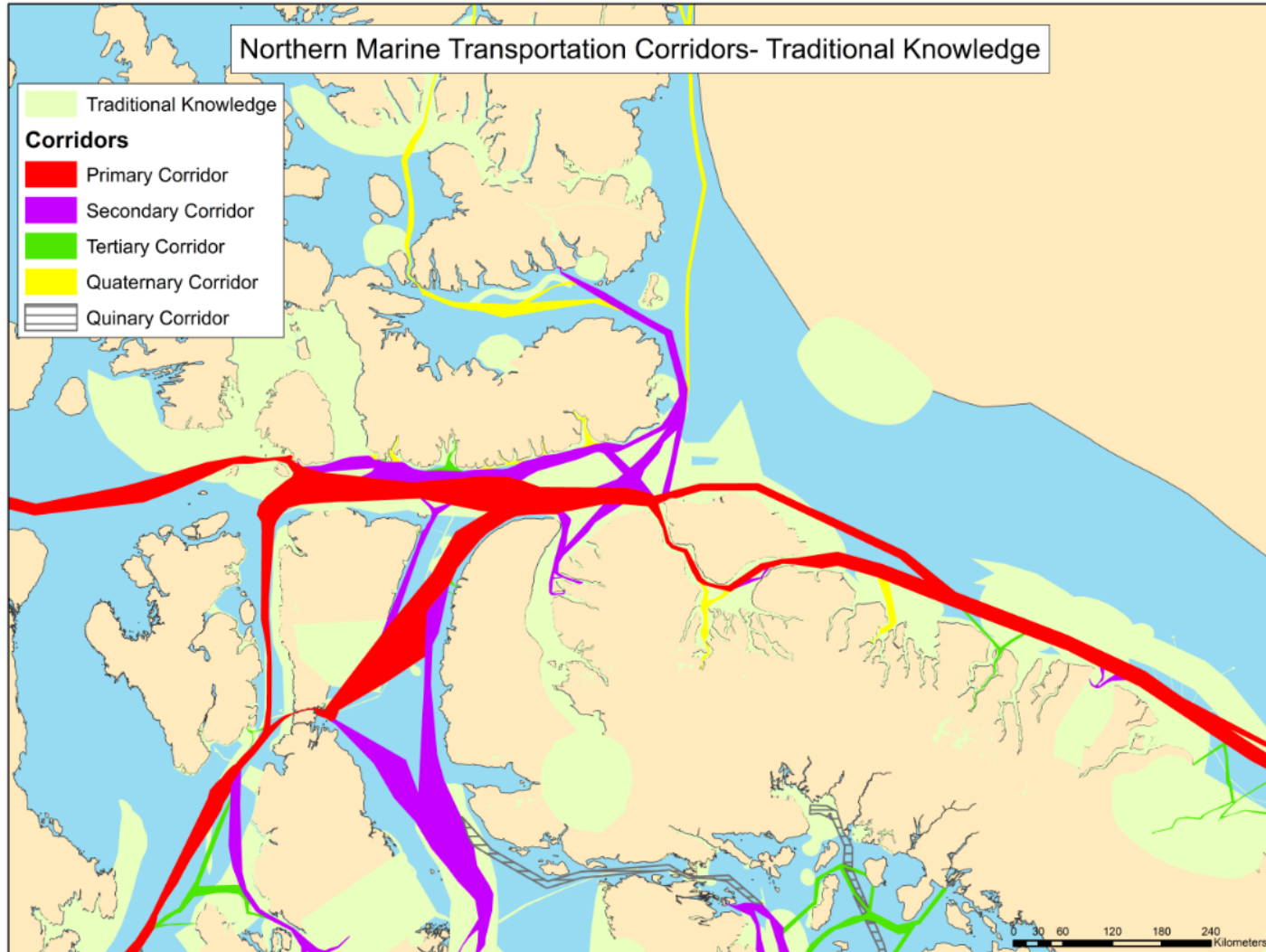
Implementation of the Corridors concept will prioritize the delivery of marine navigation services in the Arctic

Defining the Corridors



- The Corridors concept was built on existing and most reliable information
- The analysis and merging of hydrographic information, historical traffic and aids to navigation led to the identification of preliminary corridors

Ecological Factors – a contributing layer



Corridors: A Strategic Approach

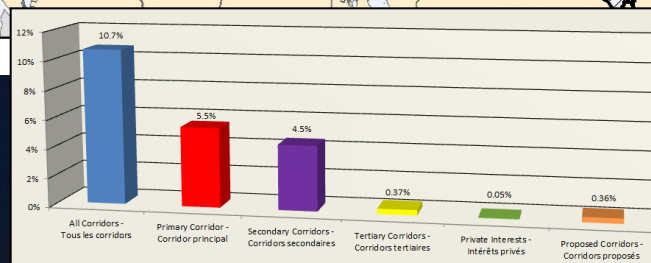
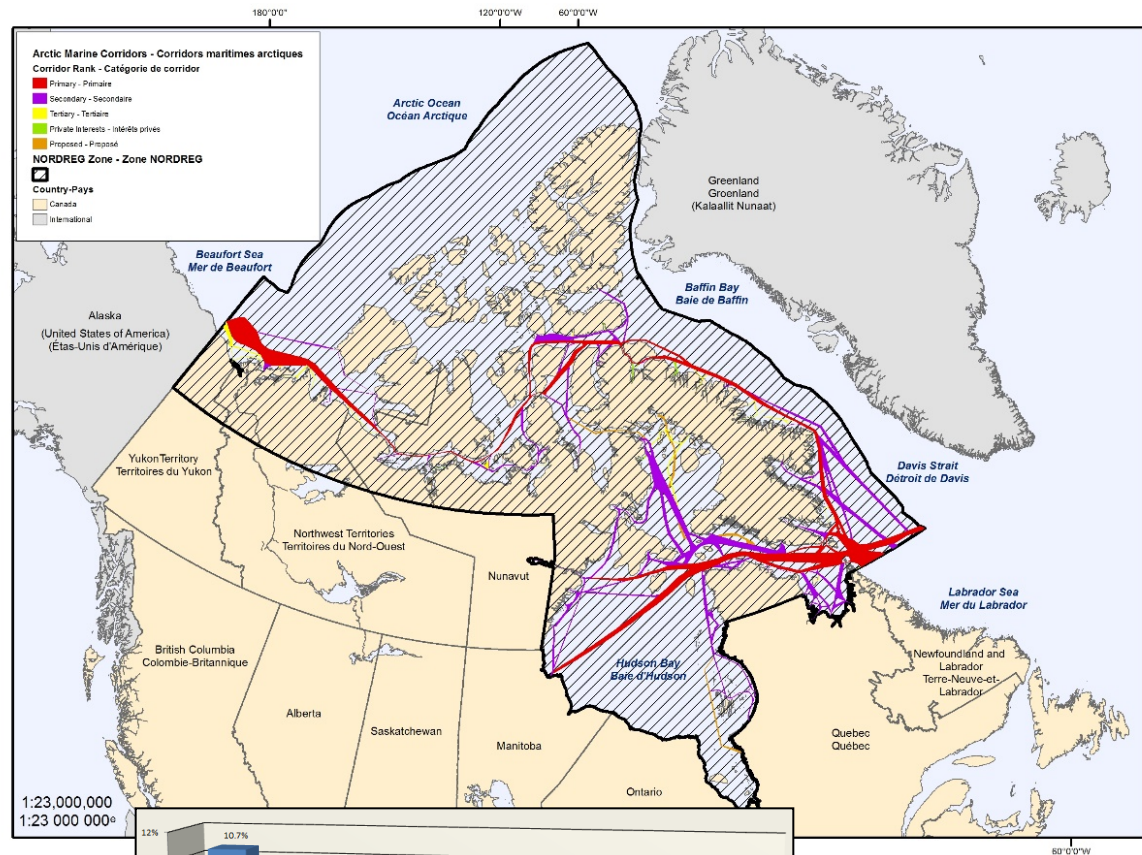
Percentage of the NORDREG Zone covered by the corridors.

Total area of water inside the NORDREG: 3,673,286 km²
 Superficie totale de l'eau dans la zone NORDREG : 3.673.286 km²

Corridor Coverage: 393,668 km² (10.7%)
 Couverture des corridors : 393.668 km² (10,7 %)

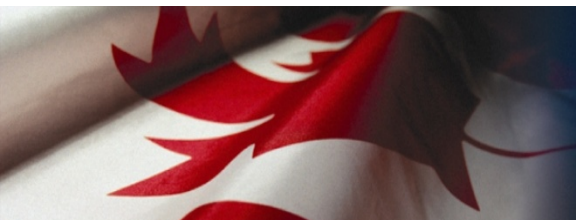
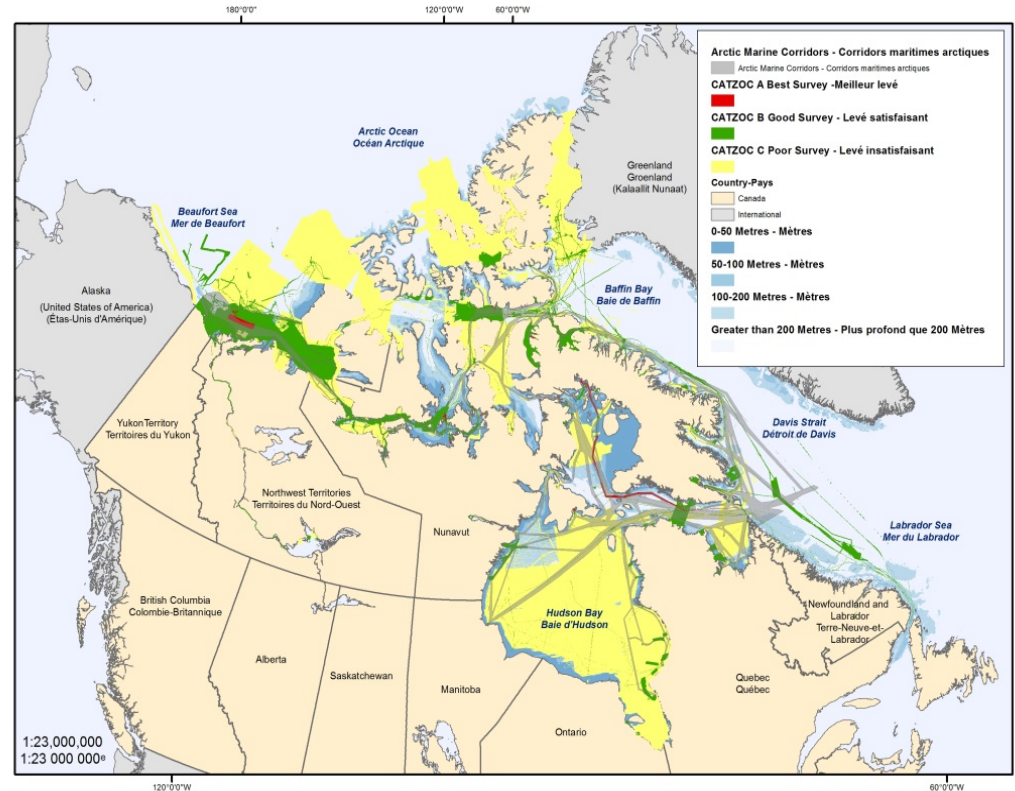
Within or at a distance of 5NM from Corridors:

- 77% of marine traffic in 2011-2013
- 87.3% of escorts provided
- 57.5% of SAR incidents for which CCG provided assistance
- 96.2% of aids were aligned to provide services for Corridors

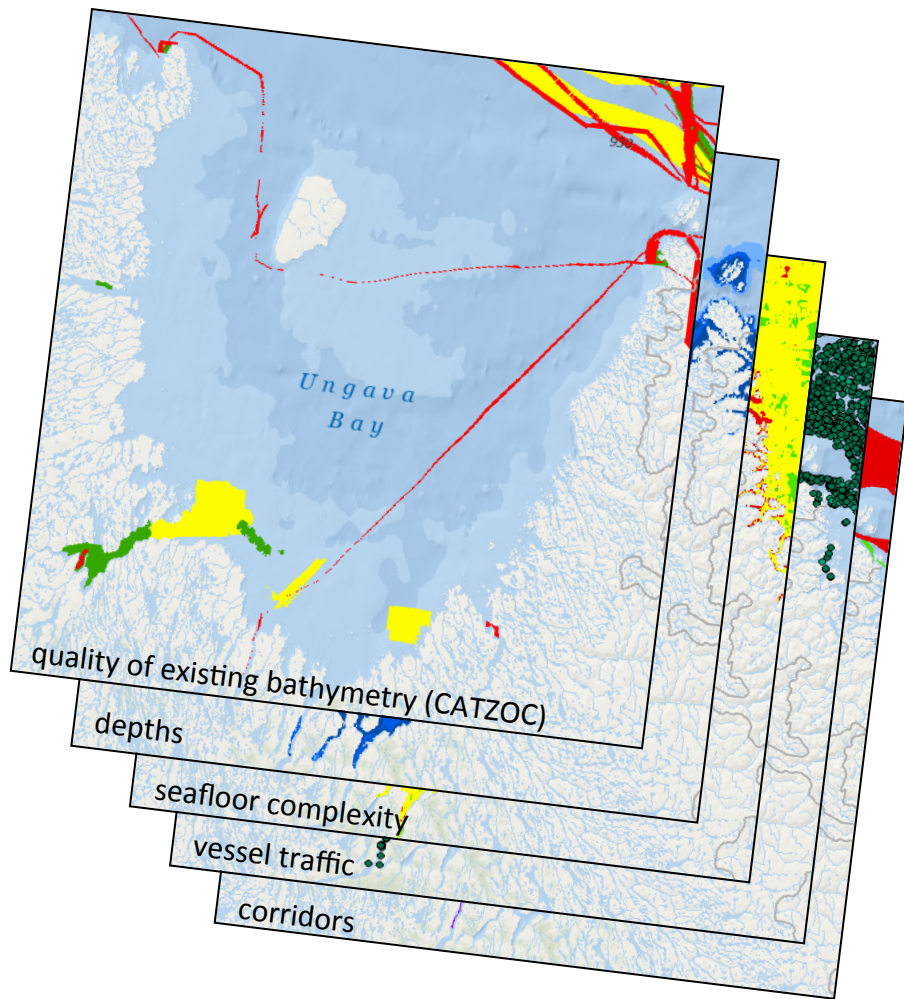


CHS Bathymetry within the Corridors

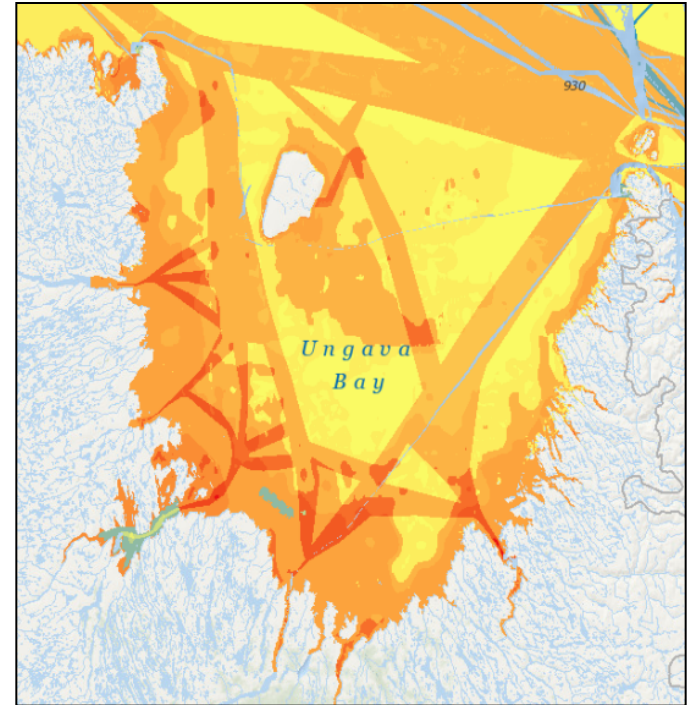
- CHS activities will aid in mitigating risks to mariners
- <1% of the Arctic's total navigable waters are surveyed to modern standards
- 3% of Primary NMTC surveyed to modern standards
- 32% of Primary NMTC surveyed to adequate standards
- Remaining areas are either spot soundings, track lines (recon.), or unsurveyed
- Corridors will focus CHS activities on areas mariners use the most



Visualization of Priorities for Hydrography



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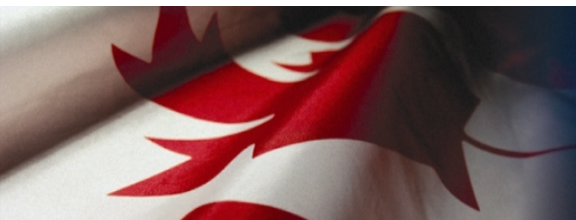


Darker within corridors = higher priority

Investments Underway



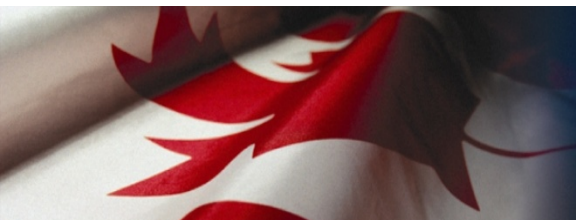
- In addition to the Corridors concept, other initiatives are underway to improve marine safety in the Arctic:
 - Navigation system improvements North of 60°
 - Reviewing the need for Global Navigational Satellite Systems
 - Reviewing current Electronic Monitoring & Communications Infrastructure to support increased communications with mariners
 - Reviewing existing Aids to Navigation Systems
 - Expanding the Coast Guard Auxiliary in the Arctic
 - Multibeam acquisition and installation on Coast Guard Icebreakers with CHS specifications
 - CHS Arctic modelling and risk of grounding matrix



Path Forward



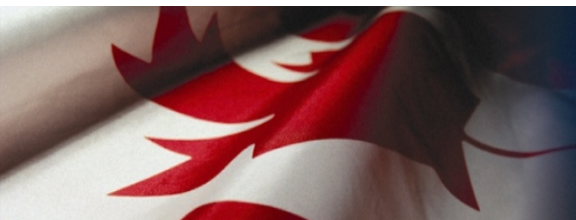
- Adoption of Northern Marine Transportation Corridor as means to focus investments
- Targeted investments in support of the Corridors concept will facilitate the provision of essential services to communities and mariners in the Arctic
- The Corridors initiative will be evergreen
- Continued engagement will take place with:
 - Indigenous groups
 - Communities
 - International partners
 - Academia; non-governmental organizations
 - Industry
 - Territorial and other government partners



Thank you

Now Let's Discuss

- What do you think of the Northern Marine Transportation Corridors concept as a tool to guide federal decision-making?
- What other services and government activities or decisions can/should be guided by the Corridors policy framework?
- What are the marine transportation infrastructure needs for the North?



Next Steps

- Following completion of engagement sessions held during March 2016, *What Was Heard* report will be provided to session participants for validation.
- Further comments and feedback can be provided to Transport Canada: Jennifer Williams by email (jennifer.williams@tc.gc.ca) or by phone (613) 291-3900.
- An online tool to facilitate the collection of comments and feedback is currently being developed.