



# Developments in Canada's Arctic

## Arctic Shipping Forum North America

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# OBJECTIVES

- ❑ Provide an overview of recent maritime activity in Canadian Arctic waters;
- ❑ Highlight Canada's approach to the regulation and oversight of marine transportation in the Arctic, with emphasis on ship safety and the protection of the marine environment;
- ❑ Discuss the recent entry into force of the Polar Code in Canada through the *Arctic Shipping Safety and Pollution Prevention Regulations*, and the addition of unique Canadian requirements;
- ❑ Draw attention to additional complementary vessel safety and pollution prevention initiatives being pursued by Transport Canada in the Arctic.

# 2017 VESSEL ACTIVITY IN CANADIAN ARCTIC WATERS

VESSELS PER YEAR AND CLASS COMPARISON			
Vessel Class	2016	2017	% Change
Bulkers	22	26	18.20%
Cruise Ships	17	14	-17.60%
Fishing Vessels	19	30	57.90%
General Cargo	24	19	-20.80%
Government	17	20	17.60%
Pleasure Craft	28	35	25.00%
Research Vessels	4	8	100.00%
Tankers	5	12	140.00%
Tugs/Barges	19	23	21.10%
Other	2	4	100.00%
<b>TOTAL</b>	<b>157</b>	<b>191</b>	<b>21.70%</b>

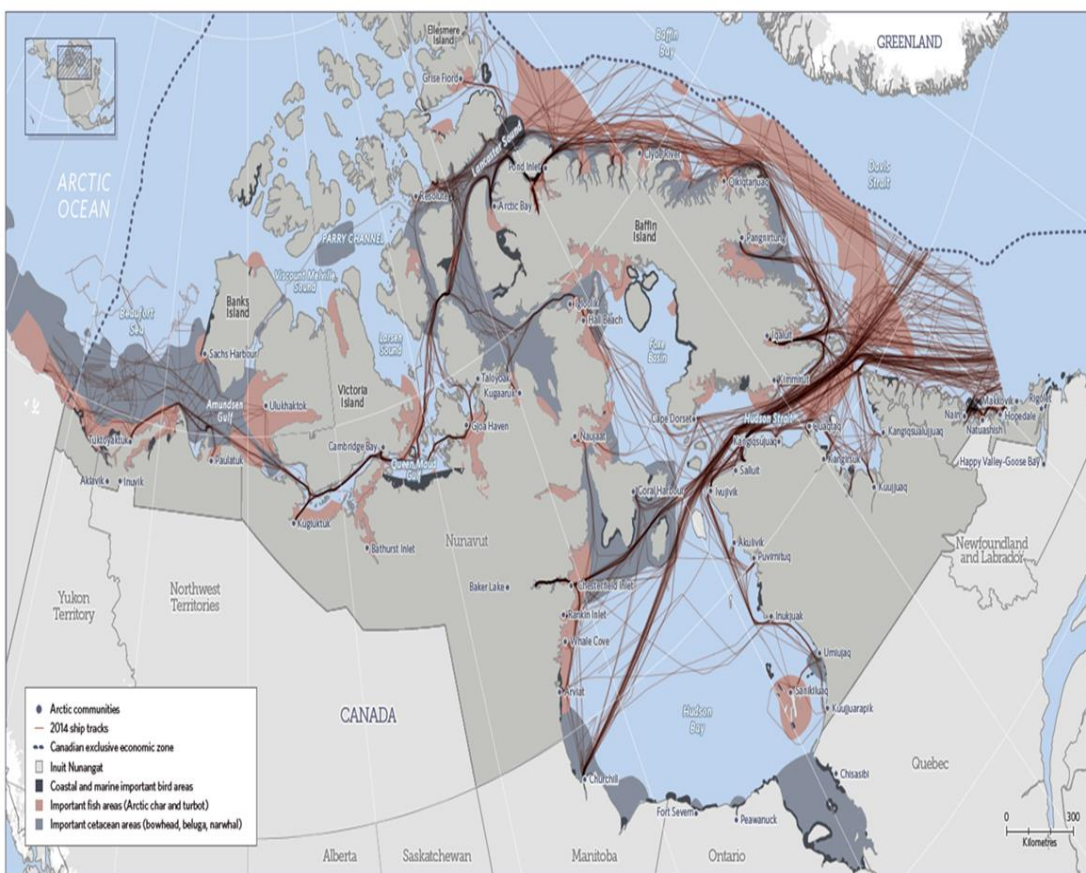
VOYAGES PER YEAR AND CLASS COMPARISON			
Vessel Class	2016	2017	% Change
Bulkers	55	71	29.10%
Cruise Ships	25	21	-16.00%
Fishing Vessels	117	135	15.40%
General Cargo	49	51	4.10%
Government	17	18	5.90%
Pleasure Craft	28	35	25.00%
Research Vessels	4	9	125.00%
Tankers	13	18	38.50%
Tugs/Barges	19	23	21.10%
Other	2	4	100.00%
<b>TOTAL</b>	<b>329</b>	<b>385</b>	<b>17.00%</b>



# CANADIAN ARCTIC SHIPPING ACTIVITY

- ❑ With few exceptions, predominately Summer traffic (July-September)
- ❑ Primarily destination and not transit activity, and concentrated along Hudson Strait and Baffin Bay
- ❑ In 2017, 34 vessels completed transits of the Northwest Passage

Map 1  
Canada's Arctic Passageways Are Shared by Ships and Wildlife  
Vessel, whale, fish, and bird movements





# CANADA'S ARCTIC SHIPPING REGULATORY REGIME

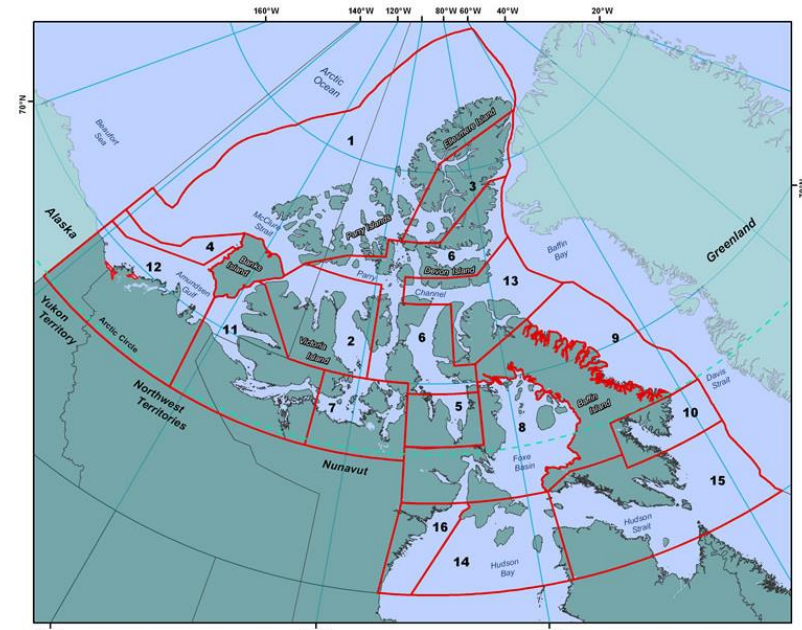
## Essential Legislation:

### ☐ All of Canada

- Canada Shipping Act, 2001
- Marine Liability Act
- Marine Transportation Security Act

### ☐ Arctic Specific

- Arctic Waters Pollution Prevention Act
- Northern Canada Vessel Traffic Services Zone Regulations
- Shipping Safety Control Zone Order
- Arctic Shipping Safety and Pollution Prevention Regulations (Came into force December 2017)



# ARCTIC SHIPPING SAFETY AND POLLUTION PREVENTION REGULATIONS

The primary objectives of the Regulations are to:

- ❑ Introduce new safety and pollution prevention requirements through the application of the Polar Code to certain Canadian flagged vessels operating in Polar Regions;
- ❑ Ensure the continuation of existing levels of safety and pollution prevention currently applicable to certain vessels operating within the Canadian Arctic (e.g. complete prohibition of most discharges).

## CANADIAN “ADDITIONS” TO THE POLAR CODE

Incorporating the Polar Code, the Arctic Shipping Safety and Pollution Prevention Regulations (ASSPPR) (re)introduce certain unique Canadian requirements:

- ☐ Three unique methodologies for determining ice operations;
- ☐ Low temperature notation (for Canadian flagged vessels built after January 1, 2017);
- ☐ Ice navigator qualifications for certain vessels not subject to the International Convention for the Safety of Life at Sea (e.g. fishing vessels);
- ☐ Stricter operational and structural pollution prevention measures than allowed under the Polar Code.

# POLAR CODE/ASSPPR IMPLEMENTATION CHALLENGES

<b>Anticipated and Encountered Challenges for Canada</b>		<b>Mitigation Measures in Canada</b>
1	Operational Assessment (Polar Code I-A/1.5)	<ul style="list-style-type: none"><li>• Experienced Canadian Arctic operators</li><li>• Various initiatives (e.g. NRC Canadian Arctic Shipping Risk Assessment System, Recognized Organization guidance)</li></ul>
2	Polar Water Operational Manual	<ul style="list-style-type: none"><li>• Experienced Canadian Arctic operators</li><li>• Marine consultants with experience in Arctic Shipping</li></ul>
3	Polar Waters Training and Certification Requirements (for Seafarers)	<ul style="list-style-type: none"><li>• Canadian officers and masters with Arctic experience</li><li>• Canada has a pool of independent qualified officers available to be used as of a person other than the officers (Polar Code I-A/12.3.2)</li></ul>
4	IMO Standards for equipment in Polar Regions (e.g. Life-Saving Appliances; Navigational & Radio Communications)	<ul style="list-style-type: none"><li>• Ongoing work at the Navigation, Communications and Search and Rescue, and the Ship Systems and Equipment Sub-Committees</li></ul>





# OCEANS PROTECTION PLAN

Canada's \$1.5 billion Oceans Protection Plan includes investments in:

- ☐ Marine Infrastructure
- ☐ Low-Impact Shipping Corridors
- ☐ Enhanced Maritime Situational Awareness
- ☐ Proactive Vessel Management
- ☐ Cumulative Effects of Marine Shipping
- ☐ Northern Marine Training Program

# HEAVY FUEL OIL MITIGATION IN THE ARCTIC

- Ongoing discussions at IMO related to the use and carriage (for use as fuel) of HFO in the Arctic.
- Internal work exploring social, economic, and environmental impacts of a potential ban on HFO in the Arctic.
- Canada's participation in the work of the Arctic Council.

# 2020 SULPHUR CAP

- Global cap of 0.5% sulphur in fuels comes into effect January 1, 2020
  - This requirement will apply to vessels operating in Arctic waters, Hudson Bay, James Bay or Ungava Bay
  - Requirement already incorporated in *the Vessel Pollution and Dangerous Chemicals Regulations*
- Emission Control Area (ECA) requirements of 0.1% sulphur continue to apply in waters covered by the North American ECA

# **ADDITIONAL CANADIAN ARCTIC SHIPPING INITIATIVES – ONGOING AND FUTURE**

- ☐ Cruise Ship Guidelines
- ☐ Underwater Vessel Noise and Marine Mammal Avoidance
- ☐ Arctic Remotely Piloted Aircraft System Initiative (Drones)
- ☐ Safety Measures for Non-SOLAS Ships (“Polar Code II’)



# THANK YOU

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