CANADA –SCIENCE AT SEA

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Global Affairs Cana

- GAC's Security and Defence Relations Division (
  MSR projects in waters under Canada's soverei
  state-to-state approval process
- Canada's MSR regulatory regime is based on the domestic implementation of the MSR regulations set out in Part XIII of the United Nations Convention on the Law of the Sea (UNCLOS).
- Researchers interested in conducting MSR in Canada must submit an application (UN standard Form A), through their diplomatic mission accredited to Canada, through Global Affairs Canada
- Applications must be submitted **6 months** (180 days) prior to the commencement of research activities, or vessel entry into waters under Canadian jurisdiction or sovereignty, whichever comes first
- MSRs can be conducted from various platforms including aircraft (e.g. to assess sea ice conditions, drop buoys, etc.), or any type of marine vessel (including pontoons and kayaks)

Canada is imminently revising their public-facing MSR documents to provide clearer guidance on the process; the intent of the new documents is to:

- Modernize Canada's policy on MSR, in alignment with other G7 countries.
- Clarify Canadian MSR processes and procedures.
- Outline application requirements, including licensing and territorial considerations.
- Establish a centralized repository for MSR information and resources.

Who requests MSR consent in Canada

Canada considers that MSR may require a permit under Part XIII of UNCLOS, if one or more of the following are true:

- The Lead Scientist is not Canadian.
- The researching organization (university, NGO, private company) is not Canadian.
- The vessel flag state is not Canadian
- Among other factors

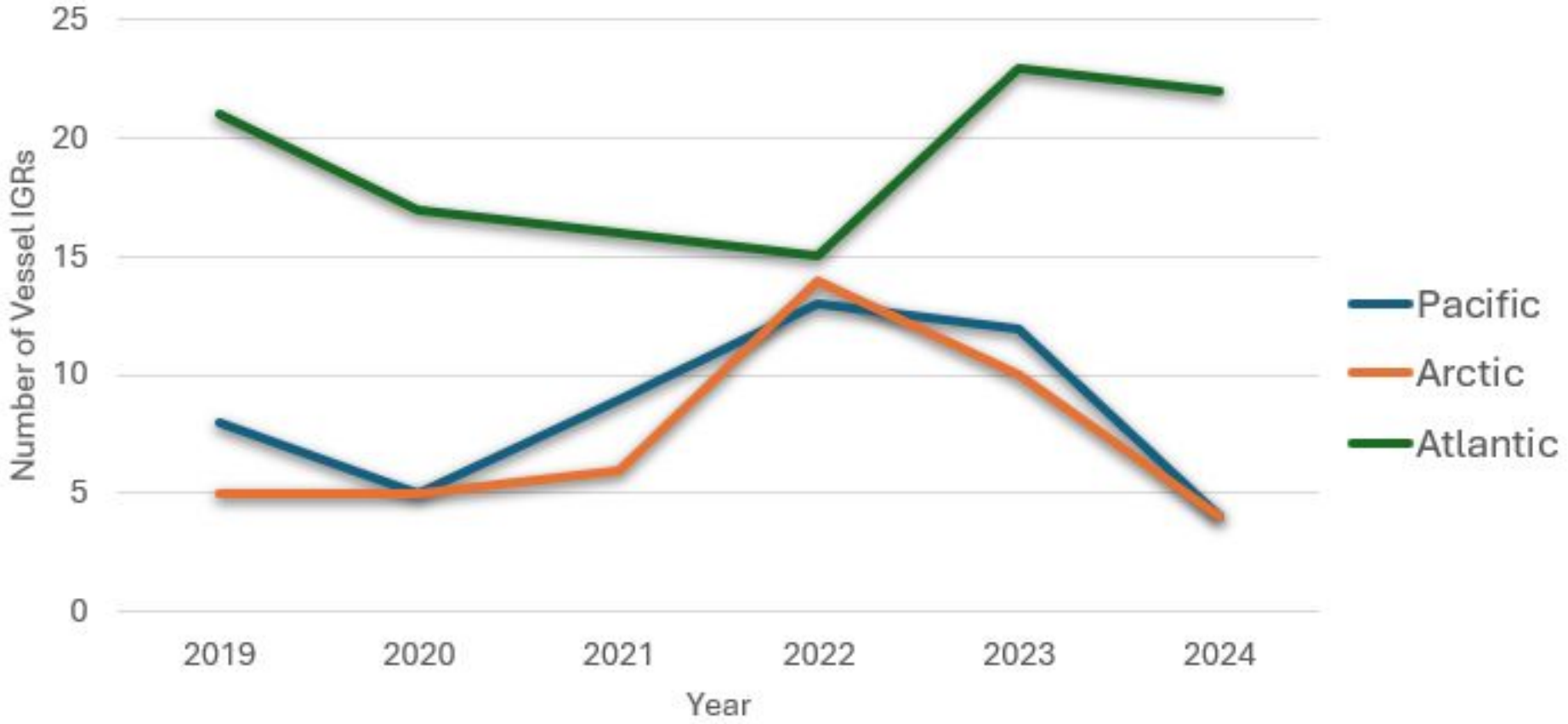
<u>Additional considerations may be applied:</u>

- If multiple countries participate in an MSR expedition, the state of the lead researcher is generally considered to be the researching state
- MSR requirements may differ:
  - If a foreign national is working exclusively with a Canadian entity (university, government), or
  - A Canadian researcher is chartering a foreign vessel for work in Canada

GAC's approval process involves consultations and distribution of MSR requests to many government departments and agencies

Global Affairs Canada receives and responds to international marine scientific research requests. The GAC Minister holds the mandate to 'approve or deny' requests.

MSR vessel requests in Canada



DFO's MSR Responsibilities

- Canada's Department of Fisheries and Oceans has the responsibility for assessing the marine scientific merits of all MSR applications under the *Department of Fisheries and Oceans Act* https://laws-lois.justice.gc.ca/eng/acts/F-15 and other relevant legislation e.g., the *OCEANS ACT*

- **MSR Applications:** DFO is a review agency for MSR applications into Canada and regularly submits applications for DFO missions to other foreign states (via GAC):
  - Internally, the responsibility for the coordination of MSR applications is led by the Assets and Infrastructure team within the Ocean and Regulatory Science Directorate in headquarters
  - Each DFO region has identified points of contact who receive, review and provide mitigation measures, support and/or issue licensing for MSR applications
  - Reviews include examining work in and around MPAs, requirements for fishing licenses, activities that could impact marine mammals, etc.

Arctic Approval Requirements

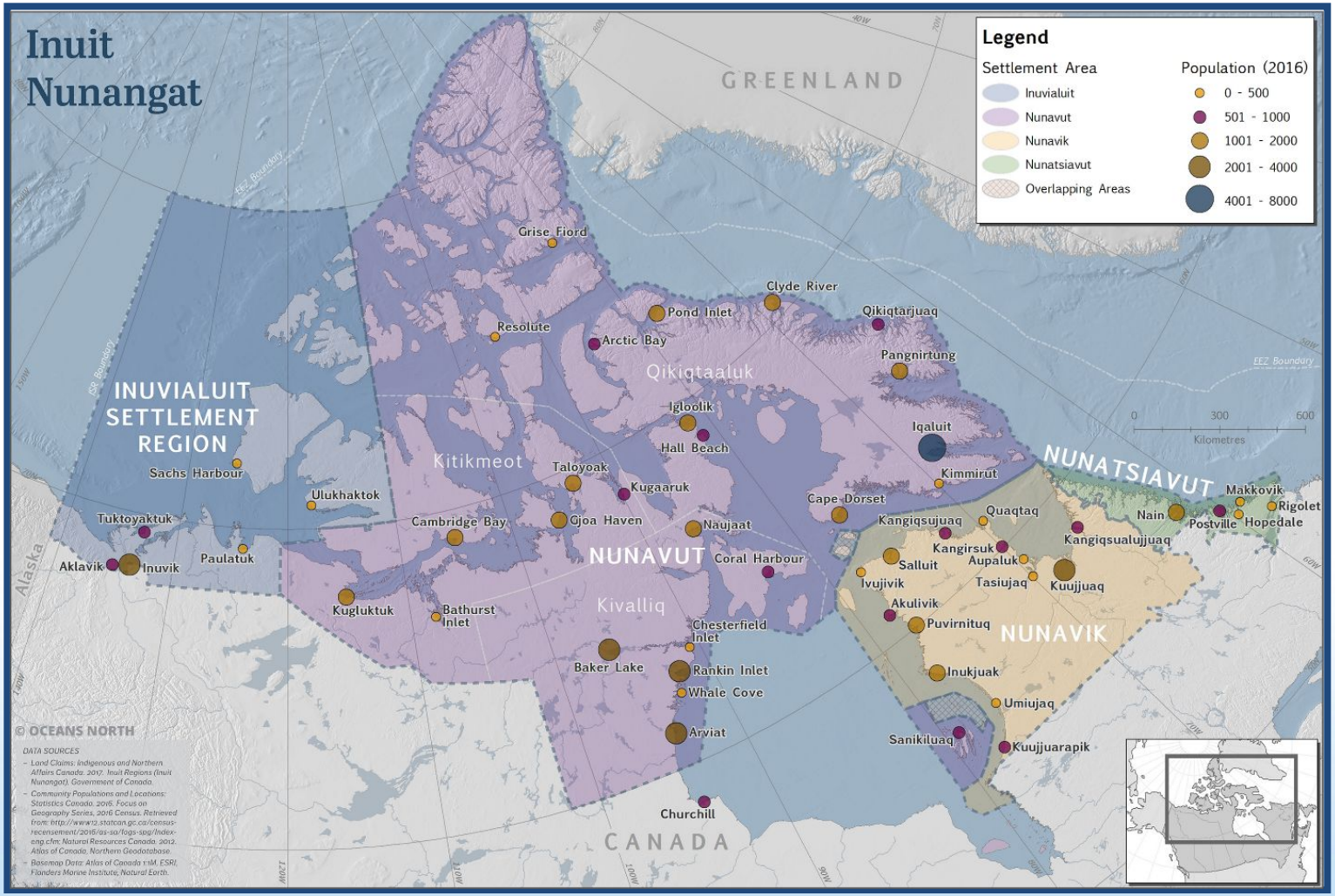
- There are 4 separate and distinct land claim agreements that apply across the Inuit Nunangat region

- In accordance with most of these land claim agreements, ***no federal license or authorization may be issued until the Territorial regulatory approvals are complete;*** the Government of Canada has no authority or influence over these processes

It is the applicant's responsibility to ensure they have confirmed the specific requirements and obtained all necessary approvals for their project

- Applicants are encouraged to reach out to each applicable land claim region (in addition to any others) early in their project planning process, as some of these processes require 9+ months of lead time
  - Please do not wait to have your MSR application approved
  - It is recommended to include application process reference numbers to your MSR application (if possible)

Inuit Nunangat, the Inuit homelands in Canada, including boundaries of Inuvialuit Settlement Region, Nunavut, Nunavik, and Nunatsiavut. Note overlapping boundaries between Nunavut and Nunavik (https://www.oceansnorth.org/en/canada-arctic-marine-atlas/).



DFO Science at Sea

- DFO Science At Sea Program has commitments of approx. 3000 sea days nationwide
- Days are divided over approx. 225 missions yearly
- CCG provides 19 science dedicated vessels nationally
- Missions consist of:
  - Oceanography
  - Stock Assessment
  - Marine Geoscience
  - Ocean Mapping
  - Cetacean Monitoring

New Vessel Builds

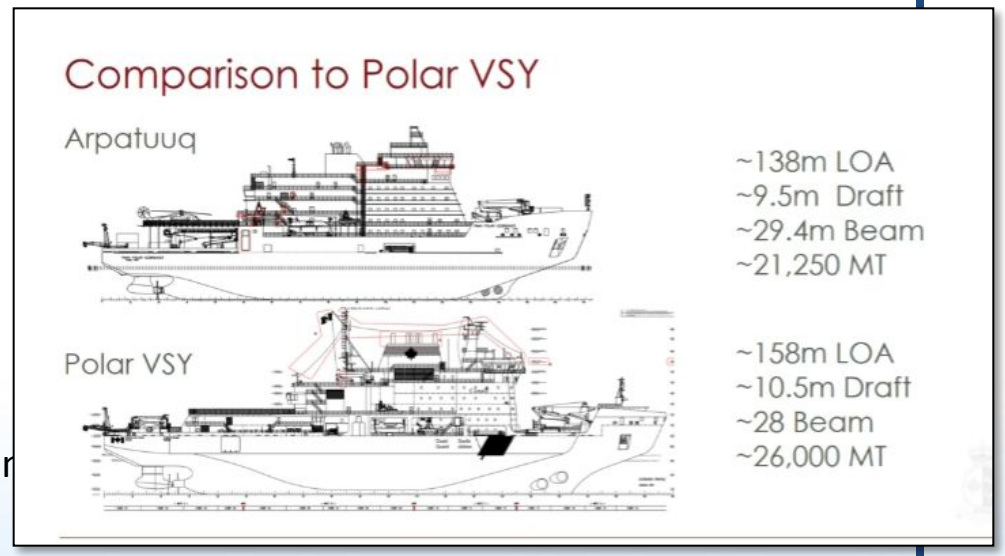
- Have taken significantly longer than originally planned
- Some efficiencies have been found but timelines are still long
- Means existing vessels required to stay in service past end of life
- Older vessels mean more issues (obsolete parts), breakdowns and costs

New Vessel Build – Updates Offshore Oceanographic Science Vessel

- OOSV named CCGS Naalak Nappaaluk
- Named after a respected Inuit Elder committed to protecting Inuit language and culture
- Vessel launched – 17 Aug 2024
- Currently being outfitted
- Expected Delivery – Jun 2025

New Vessel Build – Update Polar Icebreakers

- Plan to build 2 PC-2 Icebreakers
- One at Seaspan in Vancouver and one at Davie in Quebec
- Seaspan (VSY) Polar Steel Cut
  April 2025
  – Delivery 2030 (planned)
  – Named CCGS Arpatuuq
- Davie Polar awarded March 2025
  – Uses Polar Max Design – Part of Helsi
  Shipyard Merger
  – Delivery 2030 (planned)
  – Named CCGS Imnaryuaq



New Vessel Build – Near Shore Fisheries Research Vessel

- Build Contract Awarded Oct 2023 to Chantier Naval Forillon in Quebec
- Estimated Delivery 2027
- Built with diesel electric hybrid power with a Battery Energy Storage System
- Area of Operation – Gulf of St Lawrence and Seaway

Vessel Maintenance

- Largest Issue is shipyard availability in Canada
- 5 Large yards to do work on existing large fleet
  - St. John's, NL
  - Quebec City, QC
  - Hamilton, On
  - Vancouver, BC
  - Les Mechins, QC
- Demand outweighs supply
- Challenges to keep assets working

Crewing Issues

- Still dealing with crewing issues across the fleet
  - Cooks and Engineers are biggest issues
- Have been able to maintain most missions on schedule
- There have been some lost missions due to not meeting safe manning
- Work has begun on recruitment and retention

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Canada

Questions?

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