



Maritime Search and Rescue in Nunavut, Canada: Strengthening the System from the Bottom Up

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INTRODUCTION

Due to the impacts of climate change, maritime search and rescue requirements are increasing across Nunavut.

The region's vast size and cold climate combine to make time the enemy of all responders. The substantial distances involved in responding with Canadian Coast Guard (CCG) icebreakers or Royal Canadian Air Force aircraft based in the South mean that the arrival of federal resources on scene can take significant time. There are few vessels of opportunity in the region.

Historically, however, there has been little sustained investment in community-based marine Search and Rescue (SAR) capabilities in the territory. This started to change in 2015 with the launch of the CCG's Arctic SAR Project and, in 2018, with the creation of the Coast Guard's new Arctic Region.

This poster will outline the status of the community-based marine SAR system in Nunavut, assess efforts by the Coast Guard and its partners to strengthen the system, and suggest broadly applicable best practices.



Gjoa Haven community SAR boat; CCGS Sir Wilfrid Laurier; Jimmy Haniliak, Cambridge Bay CCGA

MARINE SAR IN NUNAVUT PRE-2015

By 2015, Nunavut's 24 coastal communities contained only three operational CCG Auxiliary units (all-volunteer local SAR teams).

Effort to expand the Auxiliary in early 2000s failed due to lack of funding; limited community engagement; crew/vessel standards inappropriate for realities of Nunavut's communities

Lack of investment in community-based marine SAR capabilities in Nunavut resulted in:

- Communities unable to find equipment and trained volunteers to conduct searches
- Untrained volunteers responding in unsafe vessels in unsafe conditions
- Community responders with limited understanding of how the SAR system works
- Limited reporting of SAR cases
- Reliance on CCG icebreakers and southern-based air frames often hours or days away

Lack of Coast Guard SAR personnel devoted to operations in the Arctic (e.g., three in 2015)

Federal partners had limited awareness of marine risks and SAR requirements of Nunavut's communities

Inuit Knowledge was not integrated into the broader SAR

"For years and years it seemed like the government had forgotten about the Coast Guard Auxiliaries up here. In the past, it has been hard to keep the unit up and running." CCG Aux. unit leader, Nunavut.

"We know the local weather. We know the conditions. We know the water and ice, the rocks. We know how the ice works. We know the best routes to take, the fastest, the safest routes to take. We know things that you can't get from a GPS or a weather report. We know how the tides work..." CCG Aux. member, Nunavut

"Before, I'm not really sure they understood what we were facing here, and just how many searches we were doing." CCG Aux. unit leader, Nunavut

CONTEXT

Nunavut covers more than 2,093,000 km² of total area, encompassing 157,077 km² of water, 45,000 km of coastline, and over 36,000 islands – 21% of Canada's total area.



Population = 40,586 24 coastal, 1 inland community

Inuit represent 85% of the population. They frequently work, travel, and harvest in Nunavut's marine spaces, often travelling great distances by boat.



Adventure cruise ship, local craft, and pleasure craft in Gjoa Haven (Aug. 2022)

Diminished ice coverage is leading to:

- longer boating seasons (boaters exposed to unsafe spring/fall conditions)
- changing, unpredictable, and extreme weather and sea conditions
- increased maritime activity – local small craft, cruise ships, bulk carriers, and pleasure craft

METHODS

The Nunavut Search and Rescue Project is a partnership between community responders, territorial and federal practitioners, and academics with the objective of strengthening SAR prevention, preparedness, and response in the territory.

Our primary methods include:

- Review of government, academic, and media literature
- Rightsholder and stakeholder interviews
- Four regional SAR roundtables involving 60 Inuit responders and 50 government partners
- Community-based SAR exercises (Cambridge Bay, Kugluktuk, and Arviat)
- SAR modelling



CCG ARTIC SAR PROGRAMS (2015-23)

The Coast Guard has revolutionized Marine SAR in Nunavut with programming designed to bolster community-based capabilities

CCG's Arctic SAR Project (launched in 2015)

- Emphasized sustained relationship-building with Arctic communities and key government partners
- Risk-based Analysis of Maritime SAR Delivery (RAMSARD): Two-year study of marine risks and SAR requirements in coastal Arctic communities, which included community engagement
- Better support for existing Auxiliary units and establishment of new ones (from 3 to 11 in 2022)
- Arctic Community Engagement and Exercise Teams (ACEET): provide support and training required for Auxiliary units

CCG Initiatives, 2017-2023

- Indigenous Community Boat Volunteer Program (ICBVP): allows communities to purchase a new SAR vessel or required equipment and construct proper storage facilities
- Establishment of Inshore Rescue Boat in Rankin Inlet in 2018 (transitioning to Arctic Marine Response Station)
- Creation of Coast Guard Arctic Region and expansion of SAR personnel to 39 by 2023, including Inuit SAR officers
- Provision of training to Inuit in existing programs, such as Inuit Guardians and Stewards (Nauttiqsuqtiit)

Results:

- Community-based capabilities assist with challenges posed by increased maritime activity in region
- Community empowerment / less reliance on outside assistance
- Faster, safer, and more effective local responses
- Auxiliary members serve as SAR detectives in their communities
- More cases are reported to proper authorities
- Infusion of local and Inuit Knowledge into SAR system

Photos from CCG Aux. Exercise, Cambridge Bay, NU (August 2023)



ONGOING CHALLENGES

Despite optimism about CCG programming, community responders have identified several ongoing challenges:

- Responders face worsening environmental conditions
- Reduced ice coverage has expanded potential search areas, particularly for short range community SAR boats
- CCG Auxiliary jurisdictional and mandate issues (e.g., use of Marine SAR resources for Ground SAR operations / land-ice interface)
- Difficulties with vertical and horizontal coordination, communication, and cooperation during SAR operations
- Provision of consistent training and equipment maintenance needed
- Volunteer burnout and need for sustained recruitment efforts
- Need to better integrate Inuktitut into SAR framework
- Need to practice role that community responders would play in MRO
- Provision of Critical Incident Stress Management resources to community responders

BEST PRACTICES

The CCG's Arctic SAR programming has provided several best practices for the building of local SAR capacity in Indigenous and underserved communities:

- Strong community engagement and relationship-building to build trust (value of same people engaging over years)
- Effective data collection that fosters better understanding of the marine risks facing communities should be foundation of efforts
- Sustained access to training and equipment (particularly safe and capable SAR vessels) is the key to success
- The co-creation of practical solutions that reflect local context/conditions - "Made in and with the Arctic solutions" (e.g., ICBVP; Guardian training)
- The importance of building a SAR culture (recognition and swag are vital)
- Consistent acknowledgement of the value that local and Indigenous Knowledge brings to the SAR system