

THE STATE OF SEARCH AND RESCUE IN NUNAVIK

A REPORT FOR THE KATIVIK CIVIL SECURITY DEPARTMENT



PREPARED BY

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EXECUTIVE SUMMARY

Search and rescue (SAR) operations on the water, land, and ice of Nunavik are challenging and complex. The austere environment, limited local resources, and close cooperation, coordination, and communication often required between a wide array of actors at the local, regional, provincial, and federal levels all create unique difficulties. The region's vast size – over 500,000 square kilometres (km), with 2,500 km of coastline and over 7,000 islands – and cold climate combine to make time the enemy of all responders. The substantial distances involved in responding with Canadian Coast Guard ice-breakers or Royal Canadian Air Force aircraft based in the South mean that the arrival of federal resources on scene can take significant time.

Yet it is not only the vast space and distances involved that define search and rescue in Nunavik, but also its intimacy. The burden of search and rescue in the region largely falls on the shoulders of community responders who usually know the people for whom they are searching. SAR in Nunavik is brothers searching for brothers, parents for children, children for parents. It searches for cousins, best friends, neighbours, and Elders. Almost all have found loved ones deceased – from the cold, from accidents, or from self-harm. The toll of this trauma and tragedy on the mental health of community responders is extreme. Most are driven by a deep desire to serve their communities. Others understand that they have the required skills and experience in a limited human power pool. Many, however, are driven by love – for their family, friends, and neighbours. This is what keeps them going back out, often with limited training, equipment, and support, even as they struggle with burnout, anxiety, and post-traumatic stress disorder. These responders form the cornerstone of search and rescue in Nunavik – but cracks are forming in this foundation that will only worsen without sustained attention, funding, and support.

This report examines the state of search and rescue in Nunavik. Using the results of the Nunavik Roundtable on Search and Rescue (Montreal, December 2022), interviews with community and government responders, and an extensive review of government documents, media stories, and scholarly literature, this report:

1. provides an overview of the SAR system in Nunavik;
2. assesses the core strengths supporting and the challenges hampering effective SAR operations in the region, with a particular focus on the perspectives of community responders;
3. reports the suggestions for improvement offered by community and government practitioners and policymakers; and
4. makes recommendations for next steps.

The skills, knowledge, and passion of community responders are the greatest asset to SAR operations in Nunavik, followed closely by the willingness of the region's communities to pull together during prolonged searches. These efforts are supported by the innovative funding and programming initiatives developed by the Kativik Regional Government, Makivik Corporation, and the Northern Villages – a remarkable example of regional self-sufficiency, but one that has left these entities bearing more than their fair share of the burden for SAR. The private sector, particularly Air Inuit, also regularly provides support for searches and funding for prevention and preparedness activities. The Canadian Rangers in 2 Canadian Ranger Patrol Group bolster community capacity to conduct SAR operations. Recent years have also brought new initiatives that have improved search and rescue in the region, including:

- stronger Canadian Coast Guard engagement and collaboration
- the expansion of the Coast Guard Auxiliary in the region
- the Indigenous Community Volunteer Boat Program
- improved working relationships between certain SAR partners

While progress has been made, much work remains to be done. There are no standard operating procedures at the community level. As multiple participants in the Nunavik Roundtable on SAR commented, "there are 14 different search and rescue systems for 14 communities in Nunavik." While a level of flexibility and autonomy is required given the differences in capabilities and assets available to communities, standard operating procedures are essential to improve training outcomes and support inter-community cooperation and coordination. The Nunavik Police Service continues to be the lead for ground search and rescue (GSAR) in the region, but, as community responders almost universally highlight, this is a situation where mandate does not match capabilities. Community responders have also consistently highlighted the need for more sustained relationship building with Coast Guard, Joint Rescue Coordination Centre, and Royal Canadian Air Force personnel. Further, the effectiveness of SAR prevention, preparedness, and response activities in Nunavik are being hampered by a wide array of significant challenges:

- a large and increasing SAR case load
- the under-reporting of SAR cases

- the impact of austere and changing environmental conditions on SAR response
- the integration of Inuit Knowledge into SAR response
- slow response times from federal assets
- the problems with family searches
- the responsibility placed upon mayors
- limited local air support
- limited understanding of the SAR system
- jurisdictional issues
- the land-ice interface
- coordination, cooperation, and communication difficulties
- the need for more SAR prevention initiatives
- infrastructure gaps
- equipment and supply gaps
- training gaps
- responder safety
- a lack of public support
- recovery operations
- volunteer burnout
- volunteer recruitment and retention issues
- the administrative burden
- the lack of consistent funding
- difficulty accessing private sector resources
- mental health challenges

The challenges affecting SAR operations in Nunavik are multi-faceted, deep-rooted, and dynamic. There are few easy answers, and every issue will take time to address. There are, however, core strengths upon which to build, none greater than the skill and determination of the region's community responders. They have ideas for improvement, new approaches, best practices, and lessons learned that can have an immediate positive impact if they are acted upon. These responders are clear that the SAR system's challenges require "made-in-Nunavik solutions" and a "Nunavik model for SAR."

The recommendations provided in this report are not focused on specific solutions, but on the structures that might be put into place to begin working through these challenges. These recommendations are rooted in the suggestions for improvement made by Nunavimmiut responders at the Nunavik Roundtable on Search and Rescue.

1. Transfer of responsibility for SAR in Nunavik to the Kativik Civil Security Department (KCSD) and development of a regional approach: We recommend that responsibility for search and rescue in Nunavik be transferred from the Nunavik Police Service

to the KCSD – a move that community responders, Northern Village leadership, and the police service itself have endorsed. The department should lead the formation of a coherent and comprehensive regional approach to SAR and the development of optimized local and regional resources. It should determine and coordinate training requirements, acquire and maintain specialized equipment, design standard operating procedures, and establish a 24/7 SAR coordination centre. As part of these efforts, the department should continue to work on the community public safety officer pilot program to see if this might offer a solution to some of the SAR challenges identified by responders.

2. Creation of an annual or bi-annual Nunavik Roundtable on Search and Rescue: The roundtable would provide Nunavimmiut with the opportunity to work through challenges, examine the SAR risks facing communities, strengthen relationships, ensure that Inuit Knowledge is fully integrated into Nunavik's SAR system, and share best practices and lessons learned on SAR prevention, preparedness, and response. This roundtable should be scaled as Nunavimmiut see fit and focused on community responders and their local and regional government and private sector partners, with provincial and federal practitioners invited as required.

3. SAR working groups: Out of the Nunavik Roundtable on SAR, working groups should be established focused on specific topics, such as policies and programs, operational challenges, equipment requirements, lessons learned and best practices, and critical incident stress management, allowing participants to develop potential solutions in an inclusive and participatory environment.

4. Re-establishment of the Northern SAR Roundtable: Relationships and collaboration constitute the foundation of an effective search and rescue system. Relationships allow for the multi-level horizontal and vertical coordination and cooperation required for the execution of SAR operations. They encourage mutual understandings of resources and capabilities, SAR risk, and community-specific needs. Relationships rooted in trust and respect also encourage honest dialogue about the challenges and obstacles that weaken the SAR system. When regional, provincial, and federal practitioners and policymakers have made greater efforts at relationship building in the past, they have improved search and rescue in Nunavik. These efforts

have, however, been too ad hoc, intermittent, and short-lived. We propose the re-establishment of the Northern Search and Rescue Roundtable. The Kativik Civil Security Department was instrumental in establishing the first iteration of this roundtable, which ran from 2010-2016. This high-level working group, made up of practitioners and policymakers, proved useful for information sharing and for strengthening the collaborative relationships required for SAR operations across the North.

In leaving the Nunavik Roundtable on SAR, one community responder explained, "It really feels like the clock is ticking. Change is needed. We need to make this all work better." They are right. The search and rescue system in Nunavik requires repair. The cases are increasing and the challenges mounting. The demand for SAR services will only intensify in the future. Strong relationships between SAR partners are more important than ever. Community responders need support. It is time to act.

1. INTRODUCTION

When reviewing the history of search and rescue in Nunavik, one landmark case stands out: the Ungava Bay Tragedy of 2003. It marked a low point in the SAR system, but it also became a catalyst for change.

In August 2003, Martha Kauki, a well-known interpreter and Makivik Corporation board member, her husband, Joanassie Epoo, and two of their teenage children, Victoria and Jacob, boarded their 22-foot freighter canoe to return home to Kangirsuk after attending a wedding in Kuujjuaq. While the group carried hunting and camping gear, they did not carry any equipment that would help them survive at sea. They were last seen near Aupaluk on 15 August, just as the weather started to take a turn for the worse. Shortly after, the Kativik Regional Police Force (since re-named as the Nunavik Police Service) launched a search. As local responders from various communities set out by boat and all-terrain vehicle (ATV) in an attempt to reach the family's last known position, Nunavik officials informed the Sûreté du Québec (SQ). As a marine search, the operation was the responsibility of Joint Rescue Coordination Centre (JRCC) Halifax and the Canadian Coast Guard, but the SQ did not pass the information along to those organizations. Instead, over 50 hours passed before Kativik Regional Government council chairman Johnny Adams called JRCC Halifax to request assistance. For JRCC Halifax, the 50-hour delay in notification inserted a high degree of uncertainty into the search planning process and resulted in a massive search area – most of Ungava Bay south of 60° north latitude.

Between 18 and 21 August, the waters and shoreline of Ungava Bay were scoured by a CC-130 Hercules aircraft, a CH-149 Cormorant, a Civil Air Search and Rescue Association (CASARA) Twin Otter from Unaalik Aviation in Iqaluit, the Coast Guard icebreakers *Henry Larsen* and *Des Groseilliers*, and community responders operating in their own boats or using ATVs on the shoreline. The weather worsened with fog, wind, and rain. The sea state made spotting a canoe from the air difficult, and the conditions limited aerial operations. Throughout the operation, the limited hydrographic information available for the region increased the risk to the Coast Guard icebreakers in the rough sea conditions and slowed the response.

On the night of 20 August, the Hercules spotted a canoe and attempted to get a response from anyone on board using night illumination flares. It received no response, and sea conditions made it impossible to confirm that it was the missing canoe. Conflict arose when Nunavimmiut responders were not immediately informed about the sighting and could not deploy to the area to conduct a search for the canoe. Working relations deteriorated quickly after this incident.

On 21 August, the regularly scheduled Air Inuit Flight 574 spotted an overturned canoe. Shortly after, *Des Groseilliers* arrived on scene and recovered the canoe, which was the search object, and the body of Martha Kauki. The other three bodies were never found.

Reflecting on the case, one member of the Kativik Regional Government lamented that it “went terribly, terribly wrong.”¹ Nunavimmiut felt like they were ignored by JRCC personnel and noted that there had been a breakdown in communications between federal responders and the communities – something that the JRCC later acknowledged. Local responders felt that they were not used enough during the search and lamented the fact that they did not have the boats, equipment, and system in place to take on more of the search on their own. Most importantly, leaders and responders all thought that the federal practitioners had not listened to or respected their local and Inuit Knowledge, particularly the information that they could have provided on the currents and weather of Ungava Bay, which could have improved the JRCC’s drift model and search plan. These issues had been identified during previous searches in Nunavik.² “They wouldn’t listen to the people of the region. They would not listen to the hunters who know about the currents of the Ungava Bay, because it goes from west to east in a circular fashion,” explained Michael Gordon, the vice president for economic development for Makivik Corporation, in his testimony to the Standing Committee on National Defence in 2009. “They would not listen to us and they would only search where the last seen point was. We didn’t have the capacity to go further out into sea and look for them.”³ In short, the search – and others that had preceded it – made Nunavimmiut feel like “third-class citizens.”⁴

In the aftermath of the tragedy, Johnny Adams, the chairman of the Kativik Regional Government, insisted that “[w]e have to do something so there are more harmonious relationships between them [federal and provincial agencies] and our region.”⁵ While JRCC personnel visited Kuujuaq after the incident to work through the issues that had emerged, the effort at engagement was fleeting. Years after the event, Nunavimmiut were still looking for answers, while military and Coast Guard personnel continued to refrain from tasking Nunavimmiut responders for SAR operations in the region.

The Ungava Bay Tragedy forced Nunavimmiut to “go their own way and look after themselves.”⁶ In 2004-2005, the Kativik Regional Government and

Makivik Corporation partnered up and spent over \$3 million on fast rescue boats for each of Nunavik’s 14 communities, and they have spent millions since on their upkeep. To ensure that similar capabilities were developed on the ground, they also purchased 28 new snowmachines for SAR, two per community. They worked together to establish a chapter of the Quebec branch of the Civil Air Search and Rescue Association (SERABEC) in Kuujuaq in 2009. Together with the Northern Villages, these regional governance bodies developed innovative funding and programming initiatives to support SAR in the region – a remarkable example of regional self-sufficiency, but one that left these entities bearing more than their fair share of the burden for search and rescue. In the years that followed, the KRG effectively fulfilled the marine SAR mandate of the Canadian Coast Guard in Nunavik.

Although the Ungava Bay Tragedy happened almost two decades ago, it continues to resonate in Nunavik. It highlights several of the central strengths of the SAR system in the region: the skill, dedication, and resilience of community SAR responders and the willingness of the region’s communities to pull together during prolonged searches. At the same time, the search underlined some of the central challenges facing SAR operations in the region that continue to concern community responders: difficulties in coordination and communication between SAR partners, the strain placed on finite local capacities, inadequate understanding of the SAR system, gaps in boating safety, the failure to integrate Inuit Knowledge into the SAR system, and the relationship between Nunavimmiut and their provincial and federal partners.

The situation has improved in recent years. The Kativik Regional Government, Makivik Corporation, and Northern Village Corporations have strengthened community SAR capacity over the last two decades. Some community responders and Kativik Regional Government officials note a better working relationship with key government partners, particularly the Canadian Coast Guard and the Canadian Army (through the Canadian Rangers), that has made SAR operations more effective. Building off the marine rescue units established by the KRG in 2004, Coast Guard Auxiliary units have been or are in the process of being established in all 14 of Nunavik’s communities.

Although progress has been made in some areas, much work remains to be done. While some Nunavimmiut note improved relations with federal partners, others explain that they have limited to no interaction

with Coast Guard or Canadian Armed Forces (CAF) personnel. Others worry that recent initiatives from the Coast Guard to bolster marine SAR in the Arctic might prove unsustainable and fleeting or will be inadequate to address the many challenges that continue to undermine SAR operations in the region. Many are concerned with the role that the Nunavik Police Service plays as the lead agency for search and rescue in the region and doubt its ability to fulfill this duty. Community responders continue to face a complex array of challenges, including an increasing case load, the integration of Inuit Knowledge into the SAR system, training gaps, equipment shortages, volunteer burnout, and limited access to mental health supports, to name just a few.

Many of these challenges can only be properly addressed in partnership with a wide array of SAR actors. SAR prevention, preparedness, and response activities and funding in the region are extremely complex from a jurisdictional standpoint, involving local, regional, provincial, Inuit, and federal agencies and organizations, including:

- Northern Villages
- Kativik Regional Government
- Kativik Civil Security
- Makivik Corporation
- Nunavik Police Service
- Sûreté du Québec
- ⊙ Department of National Defence/ Canadian Armed Forces
- ⊙ Joint Rescue Coordination Centres Trenton and Halifax
- ⊙ Royal Canadian Air Force
- ⊙ Canadian Army/2 Canadian Ranger Patrol Group
- Civil Air Search and Rescue Association
- Canadian Coast Guard Arctic Region
- Canadian Coast Guard Auxiliary
- Public Safety Canada
- Transport Canada
- Environment and Climate Change Canada
- Private sector
- ⊙ Air Inuit/Canadian North
- ⊙ Nunavik Rotors
- ⊙ Nunavik Arctic Survival Training Center

Government and community responders have emphasized the requirement to consistently strengthen cooperation between these groups to ensure that the “SAR system of systems” operates at maximum effectiveness.

The primary objective of this report is to provide an assessment of the state of the search and rescue system in Nunavik. To do so, it uses information gathered through the Nunavik Roundtable on Search and Rescue (Montreal, December 2022), interviews with community and government practitioners and policymakers, and an extensive review of government documents, media stories, and scholarly literature.⁷ Split into five sections, this report explains how the SAR system works in Nunavik, examines its strengths, assesses the core challenges that limit its effectiveness and threaten the efforts of responders, shares rights holder and stakeholder suggestions for improvement, and offers recommendations.



Maps of Nunavik. (Makivik Corporation/Kativik Regional Government)

1.1 THE NUNAVIK ROUNDTABLE ON SEARCH AND RESCUE

Co-organized by Kativik Civil Security and academics Peter Kikkert and P. Whitney Lackenbauer, the Nunavik Roundtable on Search and Rescue was held at the Courtyard Marriott Montreal Airport in Montreal, Quebec, from 11-13 December 2022.⁸ The roundtable brought together community leadership and first responders, representatives from Inuit organizations, and regional, provincial, and federal officials to strengthen relationships and discuss SAR preparedness, prevention, and response. Over 40 community representatives participated in the roundtable, including the mayors of 10 of Nunavik's 14 communities, along with over 50 participants from the Kativik Regional Government, Kativik Civil Security, Makivik Corporation, the Nunavik Police Service, the Sûreté du Québec, the Ministère de la Sécurité publique du Québec, Public Safety Canada, the Canadian Coast Guard, the Canadian Coast Guard Auxiliary, the Civil Air Search and Rescue Association (CASARA-SERABEC), Joint Rescue Coordination Centres Trenton and Halifax, 2 Canadian Ranger Patrol Group, and Transport Canada (*please find a list of the participants at Appendix A*).

The origins of the roundtable rested in repeated calls from Nunavimmiut for a review and discussion of the status of the SAR system in Nunavik. A roundtable with a focus on Northern search and rescue is not a new concept. Kativik Civil Security worked closely with the

National Search and Rescue Secretariat to create the Northern Search and Rescue Roundtable, which held regular meetings from 2010 to 2016. These meetings brought together policymakers and practitioners from the three territories, Nunavik, and (on occasion) the provinces. The meetings of the roundtable provided a platform for direct communication between JRCC staff, federal, territorial/provincial, and regional partners, and community groups, which allowed them to discuss common operating challenges and solutions. Kikkert, Lackenbauer, and their academic partners employed this roundtable concept in their search and



The Nunavik Roundtable on Search and Rescue, Montreal, Quebec, 11-13 December 2022.

rescue work with Nunavut Emergency Management – together, they held four regional roundtables in 2020 and 2022.

The Nunavik Roundtable on SAR brought participants together to evaluate current SAR policies and plans, discuss revisions and further policy development, and assess all aspects of the SAR system. To do so, participants explored SAR:

- strengths and challenges
- best practices and lessons learned
- future requirements
- solutions and new approaches



The roundtable provided the space required to develop mutual understandings of respective response capacities and gaps, examine the SAR risks facing communities, work through challenges, and brainstorm potential solutions in an inclusive and participatory environment. It provided an opportunity for community responders to learn from one another and develop a community of practice, while asking their government partners for clarity on policy, procedural, and operational issues. Most importantly, the roundtable offered an opportunity to strengthen the collaborative relationships required for SAR operations in the region.

The organizers designed this roundtable to be as collaborative and informal as possible – it was about starting conversations and sharing ideas. Although they created an agenda with general topics and timings, they designed the roundtable to be flexible and responsive to what participants wished to discuss. The roundtable involved a mixture of all-participant discussions (with simultaneous translation provided) and small breakout groups to facilitate brainstorming and the sharing of perspectives. To encourage free-flowing and candid conversations, the roundtable followed the Chatham House Rule: while participants may use information from the proceedings, the identity of the speakers will not be revealed in any reports or briefings (unless specifically requested by participants). Given that relationship building was a primary objective, the roundtable prioritized the personal conversations shared over coffee and meals as much as the broader discussions involving the entire group.

The Nunavik Roundtable on SAR started with an opening dinner, during which the organizers provided



a general introduction and a short overview of the state of search and rescue in Nunavik. Following this presentation, an introductory session was held, entitled “What Would You Like to Discuss?” Participants had the opportunity to lay out the main topics, issues, and questions they wished to examine in more detail over the course of the roundtable.

The first half of the second day focused on the Introduction to the SAR System and Discussion Period session. This involved short presentations from federal, regional, non-profit, and Inuit organizations on their roles and responsibilities in the SAR system. Participants were invited to ask any questions and/or raise any concerns they might have about how the SAR system functions and to discuss the topics raised in the previous night’s brainstorming session.

In Session 3, Sharing Best Practices and Lessons Learned, participants broke into small groups to share how SAR operations work in their communities/

organizations, what they do well, and the challenges they face. They exchanged ideas, offered possible solutions, and problem solved with one another. At the end of the session, the roundtable came back together as a whole, and groups shared and discussed their main points.

The last day of the roundtable kicked off with a discussion on how to strengthen the SAR system (Session 4). In small groups, participants discussed what they require to successfully conduct SAR operations, what they think will strengthen the system, new approaches and solutions to challenges and gaps, infrastructure needs, and future requirements. At the end of the session, the breakout groups again came together to share their findings.

The remainder of the roundtable involved a discussion-based tabletop exercise carried out by Coast Guard SAR specialists. This was an opportunity to work collaboratively and explore a “what if?” scenario. The exercise worked through an incident involving a party of five (two children aged 8 and 14, a middle-aged husband and wife, and one Elder in their mid-70s) on a 25-foot aluminum Silver Dolphin with a cabin travelling to Akpatok Island from Kuujjuaq on a hunting trip. The exercise closely resembled the 2003 Ungava Bay Tragedy. Together, roundtable participants worked through alerting protocols, response procedures, and coordination issues.

The roundtable concluded with a wrap-up and discussion of next steps by Craig Lingard, the head of Kativik Civil Security.



2. THE CONTEXT: HOW SEARCH AND RESCUE WORKS IN NUNAVIK

Through the National SAR Program, federal, provincial/territorial, and municipal organizations share responsibility for search and rescue, with the support and assistance of volunteer organizations and private sector partners. The National Search and Rescue Secretariat (NSS), which is housed in Public Safety Canada, is responsible for coordinating the National SAR Program, provides policy advice to support SAR efforts, coordinates SAR prevention activities, and manages Canada's contribution to the International Cospas-Sarsat Programme. The Canadian Armed Forces bears overall responsibility for the effective operation of the federal coordinated maritime and aeronautical SAR system. The CAF provides aeronautical SAR services (e.g., response to aircraft incidents; search for downed aircraft) and can assist the Canadian Coast Guard (CCG), which is responsible for the maritime SAR program component, which includes incidents involving a vessel or person(s) from a vessel in Hudson Bay and James Bay.⁹ Humanitarian SAR and ground SAR cases, such as searches for missing hunters or boaters on inland waters, are a provincial/territorial responsibility, although authority for operational response is often delegated to police organizations like the Sûreté du Québec and Nunavik Police Service, and federal assistance can be requested. Parks Canada is responsible for SAR in national parks.

The following overview provides more information on the various actors involved in SAR operations in Nunavik and the various roles they play within the broader SAR system.¹⁰

Who to Call in a Maritime Emergency?

JRCC Joint Rescue Coordination Centre

Trenton SRR
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Halifax SRR
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Victoria SRR
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MRSC St. John's
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MRSC Quebec
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JRCC Trenton
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JRCC Halifax
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SAR - JRCC Trenton
24-hour emergency number:
Toll-free: **1-800-267-7270**
Phone: **613-965-3870**
Email: jrcctrenton@sarnet.dnd.ca

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SAR - JRCC Halifax
24-hour emergency number:
Toll-free: **1-800-565-1582**
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2.1 THE CANADIAN ARMED FORCES

The CAF's primary support for SAR includes three Joint Rescue Coordination Centres in Halifax, Trenton, and Victoria, five aerial squadrons specifically trained and crewed for search and rescue activities, and the Canadian Mission Control Centre.

Commanded by experienced RCAF SAR pilots or navigators, the JRCCs are responsible for the planning, coordination, conduct, and control of SAR operations. Nunavik falls under the search and rescue regions covered by JRCC Trenton and JRCC Halifax. They receive and interpret distress alerts, assess requirements, and develop response plans, including the identification and tasking of the most suitable response resources (including community assets) to locate the incident, stabilize the situation, and recover survivors to a place of safety.¹¹

Under the JRCCs' direct tactical control are the five primary SAR squadrons, consisting of CH-149 Cormorant helicopters, CH-146 Griffon helicopters, and CC-130 Hercules aircraft, which are set to be replaced by the CC-295 Kingfisher.¹² Most aerial responses to SAR incidents in Nunavik come from the squadrons based in Winnipeg, Manitoba; Trenton, Ontario; Gander, Newfoundland and Labrador; and Greenwood, Nova Scotia. In aerial SAR operations, airplanes are search platforms, while helicopters are rescue platforms. 424 (Transport and Rescue) Squadron/8 Wing in Trenton, Ontario, which is responsible for much of Nunavik, currently does not have Cormorant helicopters, and its Griffons lack the speed and endurance to respond to incidents in the region. As a

result, SAR operations in Nunavik generally require the dispatch of Cormorants from Gander and Greenwood.

Each primary aircraft or helicopter on standby is fully crewed and includes search and rescue technicians or SAR Techs. The 145 SAR Techs in the CAF are highly trained personnel who can deploy by parachute or hoist to an incident and perform emergency trauma care procedures, stabilizing victims for evacuation. SAR crews are obligated to respond within a set Response Posture (RP) standard, "measured as the time from when a tasking is received to the crew being airborne." Currently, a fully operational aircrew is to be airborne within two hours of the receipt of an alert (in the recent past, the RP standard called for a response within 30 minutes during normal working hours and within two hours at all other times).¹³ Other CAF air and naval assets can be called upon to serve as secondary SAR resources, although they respond only as available and are not kept on standby.¹⁴

The Canadian Mission Control Centre (CMCC), stationed at JRCC Trenton, runs the Cospas-Sarsat program, upholding Canada's commitments to the International Cospas/Sarsat Programme Agreement (ICSPA), a satellite-aided SAR initiative focused on detecting and locating emergency locator radio beacons that have been activated by persons, aircraft, or vessels in distress.¹⁵ When a Personal Locator Beacon (on a person), Emergency Locator Transmitter (on a plane), or Emergency Position-Indicating Radio Beacon (on a boat) is activated, it sends a signal, which is picked up by satellites (LEOSAR – Low Earth

Orbiting Synthetic Aperture Radar; MEOSAR – Medium Earth Orbiting Synthetic Aperture Radar; GEOSAR – Geosynchronous Earth Orbiting Synthetic Aperture Radar). The distress beacon data is sent to the Mission Control Centre for processing, which then sends the distress notification and location to the appropriate JRCC.

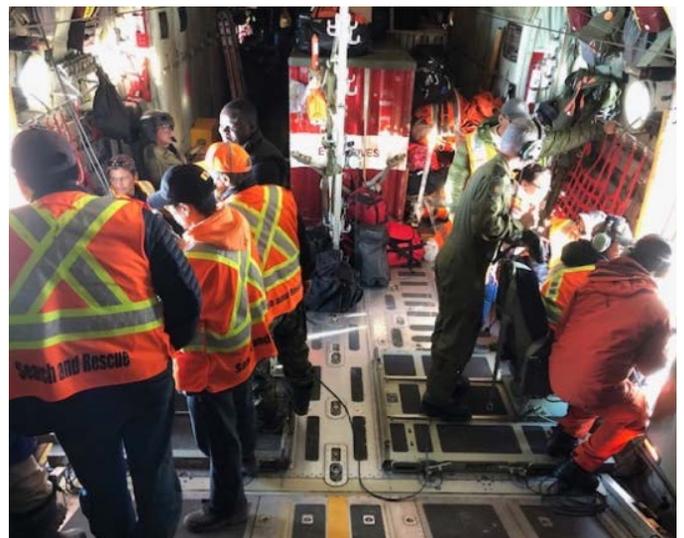
The CAF must also have its primary SAR assets and secondary resources prepared for low-probability, high-consequence scenarios that could result in the *large-scale* loss of life, namely major aeronautical disasters (MAJAID) and major marine disasters (MAJMAR). To address these scenarios, the CAF must be prepared to undertake mass rescue operations, “characterized by the need for immediate response to large numbers of persons in distress, such that the capabilities normally available to SAR authorities are inadequate.”¹⁶ During major air and marine disasters, the CAF provides initial care and survival support, medical evacuation, and, possibly, the deployment of its four MAJAID kits (plus an additional training kit that can be deployed if required). Each kit can be air dropped and contains tents, sleeping bags, clothing, medical supplies, heaters, generators, water, and rations to support 80 people for up to 24 hours.¹⁷ In normal conditions, the CAF anticipates that it can accomplish an entire MAJAID operation within 72 hours of initial notification.¹⁸ In the case of a large passenger plane crashing or a major marine accident in Nunavik, this rapid CAF response would prove vital and, if successful, could save many lives.

2.1.1 CASARA

In support of its SAR mandate, the CAF provides funding for the training, insurance, administration, and operations of the volunteers that make up the Civil Air Search and Rescue Association (SERABEC/CASARA).¹⁹

This federally incorporated non-profit volunteer association provides private aircraft, trained volunteer crews, and spotters for military aircraft during search missions.

CASARA volunteers participate in search taskings for downed aircraft and other humanitarian missions, while also conducting SAR awareness and training programs. In Nunavik, CASARA has had trained spotters in Kuujuaq since 2009 – they can board military or chartered aircraft and add their eyes and local knowledge to a search. In 2019, CASARA launched its Remotely Piloted Aircraft Systems (RPAS) Program, which puts drones with Advanced Search Imaging Software (LOC8) into the hands of CASARA volunteers. At the Nunavik Roundtable on SAR, National CASARA Liaison Officer Claude Courcelles pledged to visit every Arctic zone to provide spotter training and, if requested, support RPAS training.



2.1.2 THE CANADIAN RANGERS

Through the Canadian Rangers, the CAF provides local SAR capacity to many of Nunavik's communities. Canadian Rangers are part-time, non-commissioned



Canadian Armed Forces Reservists who serve as the "eyes, ears, and voice" of the CAF in remote parts of the country "which cannot conveniently or economically be covered by other elements of the CAF."²⁰

They lead and support territory protection operations (including surveillance patrols), conduct and support CAF operations, and ensure a CAF presence in local communities. There are 281 Rangers in Nunavik. They are members of 2 Canadian Ranger Patrol Group (2CRPG), which also covers eastern James Bay and the North Shore.

The CAF provides Canadian Rangers with flexible training that is tailored to local terrain and environmental conditions but that generally involves several elements directly related to SAR capabilities, including first aid, wilderness first aid, GSAR, constructing emergency airstrips on land and ice, and communications. Much of the equipment supplied to individual Rangers and their patrols also supports SAR operations: High Frequency (HF), Very High Frequency (VHF), and satellite communication equipment; navigation and geolocation equipment; ambulance sleds with first aid kits and medical evacuation



equipment, etc. Within their communities, Rangers often serve as SAR volunteers who know how to work effectively as a group or, when formally activated by the CAF, as a team on an official military tasking for which they are paid. When officially activated, the Rangers are compensated for the use of their personal equipment through an equipment usage rate and can have their equipment replaced if it is damaged during a search.²¹

Duty officers at 2CRPG Headquarters in Saint-Jean-sur-Richelieu are on duty 24/7. When they receive a call, generally from the Nunavik Police Service or JRCC Halifax or Trenton, they contact the patrol commander(s) in the area involved. They then seek approvals from the commanding officers of 2CRPG and 2nd Canadian Division, of which the Rangers are a part. With those approvals secured, a Ranger patrol can be activated – a minimum of five Rangers for 24 hours. One Ranger will establish a command post, while the other four search, with the duty officer supporting



their efforts. The number of Rangers activated can be increased as required. As Warrant Officers Antoine Duff and Etienne Ouellet explained to the Nunavik Roundtable on SAR, “We can come from call received to patrol activated in 15 to 20 minutes.” In recent years, the activation of Rangers has become more streamlined and simplified. Roundtable participants noted that, in the past, it could take days for the Rangers to be activated.

Since 2009, the Rangers of 2CRPG have been mobilized more than 170 times, averaging 14 ground search and rescue operations annually. While these are generally humanitarian (GSAR) cases, the Rangers have also responded to incidents involving aircraft and boats. While the bulk of the cases see the Rangers using their ATVs and snowmachines to respond, they have also assisted in marine and shoreline searches using their personal boats.



2.2 THE CANADIAN COAST GUARD AND COAST GUARD AUXILIARY

The primary responsibility for the provision of the maritime component of the federal search and rescue program rests with the Canadian Coast Guard. The Coast Guard’s SAR activities include the provision of maritime distress and safety communications and alerting services, distress monitoring, communications, and SAR operations, which encompass coordination, response, planning, training, and exercises. In the Joint Rescue Coordination Centres, Coast Guard personnel sit across from their CAF colleagues to conduct maritime SAR operations within the Canadian area of responsibility. Given its vital role in the SAR system, the Coast Guard also works on the formulation and review of federal SAR policy, in collaboration with its partners on the Interdepartmental Committee on Search and Rescue. The Coast Guard also contributes to the establishment of levels of service, performance, and operating standards.

The Coast Guard’s SAR program is delivered with the support of its fleet and using the communication and alerting services provided through its Marine Communications and Traffic Services (MCTS) program. The Coast Guard has primary SAR assets that are designed, equipped, and crewed for search and rescue and that maintain a 30-minute SAR departure standby time. Other fleet vessels, such as icebreakers, serve as secondary SAR assets, which maintain all SAR operational standards and have a 60-minute SAR departure standby time. In these icebreakers, the Coast Guard employs rescue specialists that service the waters of Nunavik – highly skilled professionals capable of administering emergency pre-hospital care in challenging marine environments, generally serving aboard ships and at coastal SAR stations.

Starting in 2015 with the launch of the Coast Guard’s Arctic Search and Rescue Project, and accelerated through the creation of the Canadian Coast Guard Arctic Region, the agency has dramatically transformed its approach to search and rescue across the



North, including in Nunavik. The Arctic SAR Project was a response to increasing maritime activity, the need to improve marine safety, and the requirement to meet the “unique challenges of SAR in the Arctic.” It entailed a two-year study (2015-2017) of marine risks and SAR requirements in coastal Arctic communities (the Risk-based Analysis of Maritime SAR Delivery, or RAMSARD), better support for existing Auxiliary units, and the establishment of new units.²² The Coast Guard developed the project around community engagement and sustained relationship building, which started with the agency’s Arctic RAMSARD team visiting over 45 communities, including those in Nunavik. In June 2017, the agency formed its Arctic Community Engagement and Exercise Teams (ACEET), which began visiting communities in June 2017 to connect with existing Auxiliary units, introduce the program to communities without an Auxiliary unit, and provide the support and training required for the establishment of new units.²³

The Coast Guard is responsible for the organization, coordination, and administration of Canadian Coast

Guard Auxiliary (CCGA) activities. Coast Guard Auxiliary units are made up of trained local volunteers who use their own vessels or community vessels (such as those provided under the Indigenous Community Boat Volunteer Program) to respond to SAR incidents. CCGA members receive specialized training, insurance coverage, and reimbursement for certain operational costs, but they also fundraise to purchase additional equipment. As of February 2023, after a long and difficult process, every community in Nunavik has a Coast Guard Auxiliary unit (members of the Quebec Region), which were stood up from the existing marine rescue units first established by the Kativik Regional Government and Makivik in 2004.

Through the Indigenous Community Boat Volunteer Program – an Oceans Protection Plan initiative – the Canadian Coast Guard has been providing communities in the Arctic with funding, generally between \$250,000 and \$350,000, to purchase community SAR vessels and marine safety equipment. While many communities in the North have benefitted from the program, as of December 2022, only the Nunaturlik Landholding Corporation of Kangiqsuaq has accessed this funding in Nunavik. The Coast Guard is, however, committed to





expanding these efforts in the region and to supporting more community applications for rescue boats and equipment.

While the new vessels provide a welcome boost to community marine SAR capabilities, they would have limited value without the training required to use them effectively. To support these units, the Coast Guard Arctic Region and its Auxiliary partners engage in a robust training cycle. These efforts have been bolstered by the hiring of Indigenous SAR response officers to assist in SAR operations, liaise with the Auxiliary units, conduct training and exercise activities in the field, and assist with equipment and vessel maintenance. Coast Guard Auxiliary members learn how to coordinate with the Joint Rescue Coordination Centres, Royal Canadian Air Force aircraft that might be on scene, and other vessels. They further learn about safe boat handling, navigation, marine first aid, marine firefighting and emergency duties, radio communications, search patterns, and CCG operations.²⁴

The provision of Coast Guard Auxiliary training in Nunavik has often posed a significant challenge (detailed in the challenges section of this report), although there are positive indications that this is beginning to change.

Other major initiatives in the Coast Guard Arctic Region that have indirectly improved the SAR system in Nunavik include the Training and Exercising Industry Program and the Arctic Marine Response Station in Rankin Inlet. Launched in 2019, the Training and Exercising Industry Program works to improve interoperability and preparedness

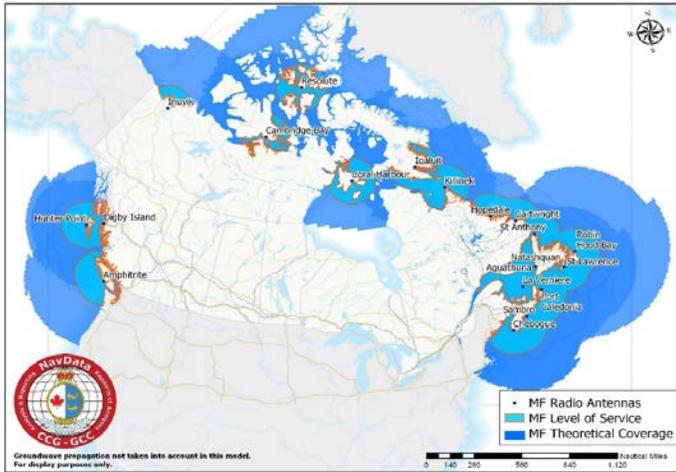
among key stakeholders in the event of a mass rescue incident in the Canadian Arctic. In 2018, the CCG established the Inshore Rescue Boat Station in Rankin Inlet, which provides 24/7 search and rescue services to the Nunavut communities of Rankin Inlet, Chesterfield Inlet, and Whale Cove. The station is currently being upgraded to an Arctic Marine Response Station for its reopening in 2023. The upgrade will include the hiring and training of additional crew from local communities, the extension of the station's operational season by one month, the procurement of an additional SAR vessel, and other infrastructure improvements.²⁵

While the Inshore Rescue Boat Station cannot provide SAR coverage to Nunavik, the Coast Guard has hired several Nunavimmiut youth – including Jeff Gordon and Koonoo Arreak-Mackey – to work at the station, learning SAR skills that they can bring back to their home communities or transition into careers in the Coast Guard.

The Coast Guard's provision of distress and safety communications in the Arctic Region is limited. It does not provide VHF Band coverage in Nunavik. Medium Frequency (MF) Band coverage by (2MHz) Radiotelephony is provided within a 150-nautical-mile radius of Iqaluit, Coral Harbour, and Killinek Island, on the extreme northern tip of Labrador between Ungava Bay and the Labrador Sea – services that Nunavimmiut sometimes use.²⁶ HF Band coverage is provided over the Arctic Ocean and Hudson Bay, including within an 800-nautical-mile radius of Iqaluit, Killinek, Coral Harbour, and Churchill.²⁷



Arctic VHF Radio Coverage Channel 16 - 156.8 MHz



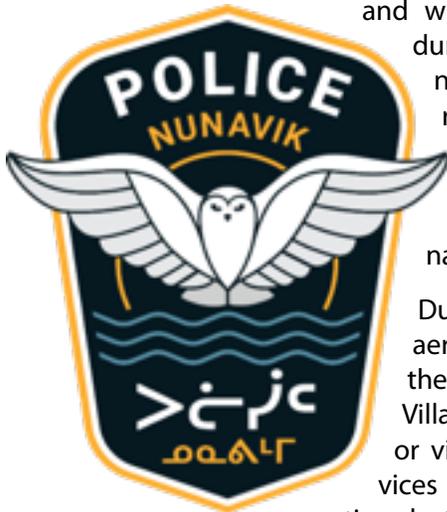
Arctic MF Radio Coverage



Arctic HF Radio Coverage

2.3 THE NUNAVIK POLICE SERVICE

The Nunavik Police Service (NPS), formerly known as the Kativik Regional Police Force (KRPF), is responsible for ground search and rescue operations in Nunavik and will provide assistance during marine and aeronautical incidents as required. These operations are guided by policies for land, maritime, and aeronautical SAR.



During a maritime or aeronautical incident, the NPS alerts Northern Village leadership and/or village emergency services and gathers information, both about the incident

and on the available local and regional resources. The NPS also advises the responsible JRCC about the event – if it has not already been notified – and transfers control. As the search progresses, the NPS acts as the regional liaison and coordinator, keeps the JRCC informed of local/regional resources, and distributes information to engaged agencies and other concerned parties. The termination of an air or marine search is the responsibility of the JRCC.

While the NPS is responsible for GSAR in Nunavik, it “relies on the resources and expertise of local search and rescue organizations.” The NPS uses three levels – Levels 1 to 3 – to classify ground searches. The mayor of a municipality and the chief of the NPS may

raise a search and rescue operation to whatever level they think is an appropriate response to the situation. The chief of the NPS can immediately raise a search to Level 3 if necessary.

A Level 1 case involves the mobilization of community resources to search for a missing person. Level 1 searches are generally called when a “person or group of persons travelling outside the municipality is overdue in returning to their place of stay or in reaching their planned destination,” or when people need immediate rescue from a dangerous situation or require immediate medical attention. During a Level 1 SAR, the local NPS detachment and the mayor are advised immediately and put their resources on standby. If the search involves a resident of the community, it usually begins with family and friends conducting a search of the municipality to ensure the missing person has not returned. If unsuccessful, the mayor (or a delegate) activates the municipal emergency operations centre and plans, organizes, and initiates a ground search. When a non-resident is missing, the chief of the NPS asks the mayor of the nearest municipality to activate their operations centre and mobilize a ground search. For a Level 2 search, the ground search is expanded, the NPS informs the Sûreté du Québec, and the chief of the NPS may charter an aircraft or helicopter to support the search efforts. At Level 3, the chief of the NPS requests the assistance of the SQ, which takes over the search operations. The termination of the operations is at the SQ’s discretion. At every level, search coordination and response are largely left up to community responders.

Searches Involving the Nunavik Police Service. Information taken from Kativik Regional Government Annual Reports and the NPS presentation at the Nunavik Roundtable on SAR.

Year	Number of Searches
2012	51
2013	61
2014	Not available
2015	32
2016	52
2017	84
2018	78
2019	64
2020	89
2021	58

For the first two levels, expenses are shared equally between the municipality and the Kativik Regional Government’s Inuit Hunting, Fishing and Trapping Support Program (or Hunter Support Program, HSP for short) when the search subject is a James Bay and Northern Québec Agreement (JBNQA) beneficiary. For air charters requested by the chief of the NPS, 50% is covered by the NPS, 25% by the municipality, and 25% by the regional HSP, when the missing or rescued person is a JBNQA beneficiary. In all other cases, the NPS assumes responsibility for expenses. At Level 3, search expenses are shared between the SQ and the NPS.²⁸

In the event that the SQ or the JRCC decides to reduce or close a SAR operation, a person directly involved in the incident is a beneficiary, and a Northern Village wishes to continue the SAR operation, financial assistance can be requested from the director general of the KRG through the HSP to cover a maximum period of seven additional days.

2.4 THE KATIVIK REGIONAL GOVERNMENT AND MAKIVIK CORPORATION

The Kativik Regional Government, its Civil Security Department, and Makivik Corporation often provide communities with technical assistance, SAR planning, training opportunities, and funding for equipment and other critical resources, as well as leading and assisting with SAR prevention activities.

The 2004 purchase of 14 fast rescue craft (seven 27-foot Extreme Pilot Masters by Northwind Marine and seven 30-foot Zodiac Hurricane 920 OBs) for each of Nunavik’s communities in the aftermath of the 2003 Ungava Bay Tragedy, at a cost of \$3.5 million, remains the largest single initiative undertaken by the KRG and Makivik. Following the purchase, which provided a great boost to the marine SAR capabilities of Nunavik’s communities, the KRG and Makivik also worked together to fund boat shelters for each community and provide training to over 80 captains and operators in the span of two years.²⁹

The fast rescue boats became the basis for 14 seasonal SAR stations in Nunavik, each of which consists of a shore facility with search and rescue craft, equipment and spare parts, and a crew ready to respond. The stations answer distress calls from vessels and aircraft, assist with medical evacuations, provide first aid to people on the water, and offer preventative assistance. The crews for the fast rescue craft were selected from the communities and authorized by the mayor or municipal manager. Each crew member had to receive training on small craft





While the KRG's efforts with the fast rescue craft are, perhaps, its most well-known search and rescue contribution, it is also actively engaged in providing support for air SAR and GSAR activities. In 2004-2005, for instance, it provided each community with two snowmachines for GSAR operations. In 2008, it purchased and delivered to the communities 160 SPOT tracking devices to support on-the-land safety

handling, fast rescue craft operations, and marine SAR procedures. The initial goal was for each boat to have one captain and two crew members, with several individuals able to act as temporary captains.³⁰ Kativik Civil Security took on the role of coordinating all training for the SAR stations and, in 2011, started to offer marine SAR training that met Transport Canada's safety standards. The KRG also took on the financial responsibility for the costs of annual insurance for the crafts, annual outboard motor maintenance, a regular outboard motor replacement program, and the provision of essential equipment, such as new radar systems. Since 2004, the KRG has spent millions in support of the fast rescue craft and their primary mission of providing SAR services in the waters off Nunavik's coasts – an extensive investment by a regional government for a service that is the responsibility of the Canadian Coast Guard.

Since 2004, these community-based fast rescue craft have provided marine SAR services to the Nunavik region. While they sometimes worked with the JRCCs, often they acted independently and handled cases exclusively at the local level. Over the past few years, as part of the Coast Guard Auxiliary's expansion in the Coast Guard's Arctic Region, the fast rescue craft and their crews have transitioned into Auxiliary units. This process has been slow and painful at times and continues to require significant relationship building between all partners involved.³¹

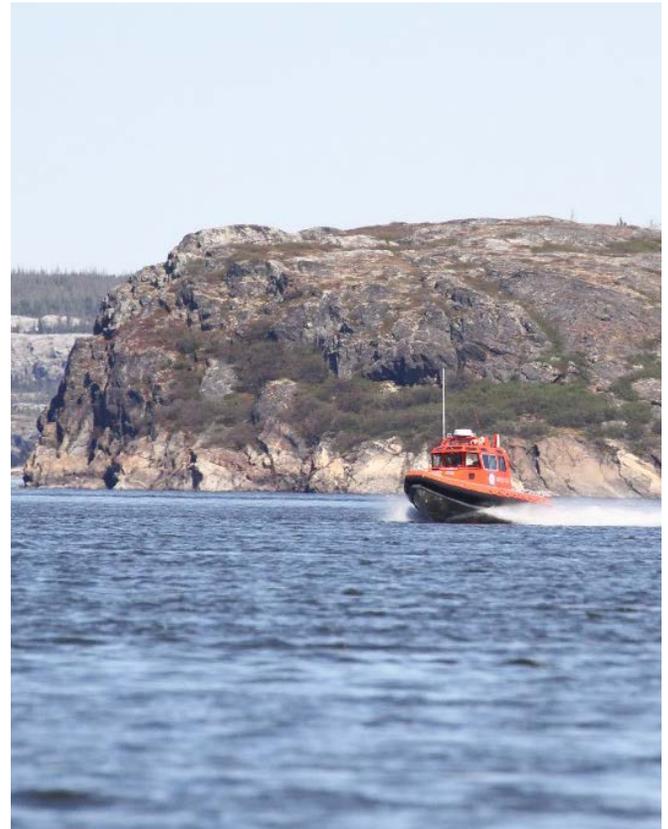
and "try to take the search out of SAR." In the years that have followed, various KRG programs have provided communities with a range of other GPS and communications devices. The KRG has purchased insurance for the fast rescue boats, for community GSAR responders, and even for Canadian Rangers, as well as accidental death and dismemberment coverage for volunteer underwater divers performing recovery operations. Since 2004, the KRG has also managed the Uumajuit Warden Program, which provides an indirect boost to local SAR capabilities. The Uumajuit wardens are responsible for wildlife monitoring and protection in Nunavik, often engaging with local harvesters and community members. They work on improving on-the-land safety, monitor seasonal ice conditions (which reduces SAR risk), and often provide assistance during ground and marine SAR operations.

In recent years, Kativik Civil Security has provided communities with a range of equipment to bolster their SAR response capacities, including satellite phones with push-to-talk (PTT) capability, which can be used like two-way radios on the land, and five Garmin inReach devices for each community, which harvesters can borrow when going out on the land. In 2009-2010, Kativik Civil Security was instrumental in reviving a Civil Air Search and Rescue Association chapter in Nunavik in cooperation with Air Inuit and the Northern Village of Kuujuaq. In partnership with the NPS, Kativik Civil Security is also developing an emergency call centre for Nunavik, which

could potentially take on calls involving SAR cases. In response to repeated community requests for underwater remotely operated vehicles (ROVs) capable of assisting in search and recovery operations, Kativik Civil Security has purchased the first underwater ROV in Quebec and is providing training to three of its technicians, who will be able to deploy with the unit to each of Nunavik's communities.

Kativik Civil Security has also recently launched a pilot program that could have a positive impact on SAR operations in Nunavik: the community public safety officer program. The position of Public Safety Officer (PSO) was designed as a "one-stop emergency management shop" at the community level. The PSO is responsible for emergency plans, serves as the fire chief, takes care of the fast rescue boat and its crew, and leads SAR activities, amongst other emergency management-related jobs. Currently, this program is being piloted in the community of Ivujivik.

Kativik Civil Security is also heavily engaged in SAR prevention and marine safety activities. For years, it has been circulating English and Inuktitut posters promoting awareness of safe travel on land and water. In 2019, the department produced a multilingual video about boating safety, which was released on the KRG Facebook page and viewed more than 15,000 times. The campaign stressed the need to access proper equipment, which ultimately reduces the number of drownings.³²



2.5 THE HUNTER SUPPORT PROGRAM

The KRG also administers Nunavik's Inuit Hunting, Fishing and Trapping Support Program, which was established under the James Bay and Northern Quebec Agreement. The funding is permanent and can be increased to account for inflation and a growing beneficiary population. The program disperses 85% of its funding to the Northern Villages, with the KRG retaining the remaining 15% for regional projects. Communities work from a predetermined range of activities to decide how to allocate funds. The list of eligible activities includes the purchase of harvesting materials and equipment, marketing, wildlife management, paying for the services of hunters and fishers, traditional activities, community harvesting infrastructure, training youth in land skills, supporting harvesting activities, and search and rescue activities. The search and rescue expenses include training costs, the purchase of fuel and supplies, equipment rental, the chartering of aircraft, and the extension of searches after their termination by the NPS, SQ, or JRCCs. When community responders use their personal equipment and machines during searches, they can be compensated by the Hunter Support Program. Since 2002, the HSP has spent over \$7.6 million in support of SAR operations in Nunavik – a considerable chunk of its total budget.³³



Year	Kangiqsualujuaq	Kuujjuaq	Tasiujaq	Aupaluk	Kangirsuk	Quaqtaq	Kangiqsujuaq	Salluit
2021	68,186	66,602	21,972	3,225	13,008	9,554	12,126	20,822
2020	27,642	96,830	17,099	9,600	39,714	24,274	2,722	42,683
2019	24,940	35,195	-	4,850	9,535	24,588	12,472	19,697
2018	16,194	26,639	32,257	2,799	46,931	6,966	5,520	25,540
2017	41,479	47,820	25,461	17,260	14,569	7,737	21,966	58,017
2016	31,784	68,735	13,213	5,553	11,279	6,418	22,284	32,673
2015	12,837	85,460	7,616	5,601	7,786	6,025	9,378	13,354
2014	16,668	33,615	8,816	3,272	9,021	1,077	6,978	4,258
2013	-	28,016	5,035	5,548	7,776	2,984	13,652	8,783
2012	32,595	2,814	5,542	6,201	8,050	2,912	14,115	12,976
2011	16,018	33,150	4,537	13,734	14,340	4,179	21,731	50,943
2010	28,212	34,106	4,680	8,698	24,043	9,021	22,816	10,025
2009	18,080	9,524	2,812	5,459	27,703	4,726	9,036	40,729
2008	8,273	18,387	-	6,893	42,524	27,144	6,395	-
2007	7,232	22,075	-	8,218	6,328	-	15,052	7,080
2006	5,406	32,858	-	5,150	5,218	9,044	11,195	66,225
2005	18,082	8,712	-	2,688	19,258	21,896	12,335	142,259
2004	2,334	3,579	-	3,055	3,619	-	6,020	-
2003	1,109	7,976	-	38,281	36,179	17,021	2,362	18,518
2002	-	16,641	-	-	1,372	1,504	1,943	882
TOTAL	377,071	678,734	149,040	156,085	348,253	187,070	230,098	575,464

These charts break down the amount of Hunter Support Program funding that each community used for SAR between 2002 and 2021.

Year	Ivujivik	Akulivik	Puvirnitug	Inukjuak	Umiujaq	Kuujjuaraapik	All Communities	
2021	2,850	19,314	193,326	180,939	15,360	8,450	635,734	
2020	22,360	107,280	209,425	105	6,150		605,884	
2019	49,775	104,845	41,517	132,056	13,151	8,800	481,421	
2018	52,509	37,719	132,927	48,944	7,188	2,350	444,483	
2017	15,014	27,978	23,424	90,250	10,869	15,628	417,472	
								2,584,994
2016	15,270	62,929	10,436	194,157	45,115	20,464	540,310	
2015	24,531	38,548	1,195	74,161	12,162	9,329	307,983	
2014	22,503	22,527	2,781	323,839	-	14,833	470,188	
2013	12,092	77,470	5,902	72,635	16,808	24,373	281,074	
2012	14,062	20,276	3,692	70,198	9,960	5,432	208,825	
								1,808,380
2011	34,075	124,089	32,230	110,331	42,777	-	502,134	
2010	59,764	15,999	92,732	90,210	27,807	51,958	480,071	
2009	12,276	23,105	220,567	83,730	7,623	7,767	473,137	
2008	8,942	-	23,028	49,804	-	15,553	206,943	
2007	6,225	-	10,333	71,153	6,955	750	161,401	
								1,823,686
2006	5,671	13,540	18,902	52,322	31,029	385	256,945	
2005	12,287	27,760	57,622	13,871	6,946	5,353	349,069	
2004	4,957	66,723	327,215	19,827	-	4,476	441,805	
2003	-	1,635	36,904	45,702	-	5,663	211,350	
2002	2,940	1,739	31,018	66,282	10,143	1,513	135,977	
								1,395,146
TOTAL	378,103	793,476	1,475,176	1,790,516	270,043	203,077	7,612,206	7,612,206

2.6 THE SÛRETÉ DU QUÉBEC

When a search reaches Level 2, the Nunavik Police Service informs the SQ. At Level 3, the chief of the NPS formally requests the assistance of the SQ, which then takes over the search.



The termination of operations is at the SQ's discretion. At this stage, expenses, including for the chartering of aircraft, are shared between the two police services. Generally, the SQ plays a limited direct role in SAR in Nunavik, although it does lend advice to the NPS, has provided certified search and rescue dogs, and has

deployed specialized divers to support recovery operations. It contracts out private helicopters for search and rescue in the southern part of the province, but it does not have the range to support SAR operations in Nunavik.

2.7 THE LOCAL LEVEL

The NPS defers most operational responsibilities for SAR operations to municipal leadership, Northern Village emergency services, and 2 Canadian Ranger Patrol Group. There are no standard operating procedures at the community level. As multiple participants in the Nunavik Roundtable on SAR commented, "there are 14 different search and rescue systems in Nunavik. Each community does it differently."³⁴

Within this system, the mayor of a municipality or, in some cases, their delegate has considerable responsibility to organize and coordinate SAR operations. The searches usually involve the local radio station, municipal and regional government employees, and community members acting as volunteers using personal or, in some communities, municipal vehicles and equipment. Local searches can also entail the formal activation of local Canadian Ranger patrols.

While the *Administrative and Operational Guidelines* developed by Kativik Civil Security for Nunavik's marine SAR stations provide some guidance for the fast rescue craft in each community, it is unclear how closely these are followed. With the transition of the marine rescue stations into Coast Guard Auxiliary units, they will be guided by the Canadian Coast Guard Auxiliary National Guidelines. Most communities have

crew members on standby throughout the summer – ideally two crews of between three and four trained members.

While there are no standard operating procedures for GSAR in Nunavik, communities often employ many of the same methods. Sometimes communities have GSAR teams on standby, ready to respond when they receive a call. Communities without a formal SAR team sometimes have an individual who is responsible for recruiting potential searchers and convincing them to use their personal machines and equipment. Once mobilized, SAR teams will establish a command post. SAR coordinators will then take on their roles as "SAR detectives," gathering information about the search subject, their travel plans, and their capabilities. Part of this information gathering involves engaging with the family and friends of the search subject. SAR teams will also ask Elders to share their knowledge about specific locations and the best search tactics to use. Some SAR teams assign specific people to communicate with family members and the public during a search and to serve as a link with the NPS.

Many community SAR teams will deploy out in pairs or in parties of four. Some communities will pair experienced searchers or Elders with younger volunteers, which reduces risk and helps with the transmission of knowledge and skills. Often, SAR teams will start their searches at known cabins, where someone might be expected to seek shelter. They then conduct sweeps by spreading into a long line, retaining visual sight of one another, or begin grid searches. The coordinator keeps track of these movements from the command post and maintains hourly communication check-ins. Some groups use the local radio station to provide updates and to request information from the public. During extended searches, some groups will establish base camps on the land, and, if there are enough responders, searchers will work in shifts. Some community responders make use of inReach devices, which provide access to weather forecasts and instant messaging. Through these devices, the SAR coordinator can use laptops to keep track of where all the teams are operating and where they have searched.

Again, this was a brief overview of some of the procedures that community responders use in Nunavik – certainly, it is not exhaustive. Every community does things differently.

2.8 THE PRIVATE SECTOR

Private sector partners are often very generous in their support of SAR operations in Nunavik. Air Inuit, for instance, will keep an eye out while on scheduled flights, often assisted by their passengers. Sometimes they will divert these flights to check out well-known trails on the land and water between communities. Nunavik Rotors, the helicopter division of Air Inuit, will also make its services available to the Ungava Bay communities.

Established in 2000 by Air Inuit, the Corporation of the Northern Village of Puvirnituk, and the Puvirnituk Co-op, the Nunavik Arctic Survival Training Center (NASTC) offers winter, summer, and sea ice survival training, as well as diving, navigation, First Aid, and ground search and rescue courses, all of which are adapted to the region's conditions. Through these

pre-packaged and customized survival training courses, expert Inuit instructors teach critical survival skills to employees of government agencies, non-profit organizations, and private corporations working in extreme Arctic conditions. In 2008, the centre was certified by Emergency Response Diving International, the organization that trains police, fire, and other public safety organizations to become SAR units. In doing so, the NASTC became the first civilian group in Canada to receive this distinction.³⁵ On a voluntary basis, their members also provide support to search and rescue operations in Puvirnituk. At the Nunavik Roundtable on SAR, the centre said it was looking to take a more substantive role in SAR across the region.³⁶

Search and rescue responders who operate in Nunavik identified several core strengths that support effective SAR operations.



Images from the Nunavik Arctic Survival Training Center Facebook page.

3. STRENGTHS OF THE SAR SYSTEM IN NUNAVIK

3.1 COMMUNITY RESPONDERS

On a volunteer basis, the community groups responsible for conducting search and rescue operations in Nunavik are generally able to recruit enough skilled and dedicated people to carry out response operations. Most are driven by a deep desire to serve their communities. Others understand that they have the required skills and experience in a limited human power pool. Many, however, are driven by love – for their family, friends, and neighbours. This is what keeps them going back out, often with limited training, equipment, and support, even as they struggle with stress, anxiety, and post-traumatic stress disorder (PTSD).

Community responders match their dedication with intimate knowledge of the land, local environmental conditions, and their fellow community members. Their service facilitates the integration of Inuit Knowledge into the broader SAR system. Community responders represent the cornerstone of the search and rescue system in Nunavik.

The leadership of SAR coordinators and fast rescue boat captains (Coast Guard Auxiliary unit leaders) is vital. They play an essential role in preparing their teams and executing community searches. These leaders devote a great deal of time and energy into ensuring that their communities are prepared for SAR operations. They:

- facilitate training opportunities for their teams
- sustain relationships with local, regional, and federal SAR partners
- ensure that, at all times, enough volunteers are on standby and ready to participate in a search if required
- establish a command post at the beginning of a search and coordinate responders
- contact all individuals who might be involved with a search at the community level
- facilitate the gathering of information about missing persons, including by working with their family members





An Inukjuak community search and rescue effort. (*Nunatsiaq News*, file photo by Johnny Kasudluak)

- organize SAR teams and get them ready to deploy
- organize the purchase of supplies and fuel for the SAR teams
- ensure that proper procedures are followed
- liaise with the NPS, JRCC, Coast Guard, and RCAF personnel
- complete expense forms, damage reports, and other required paperwork in the aftermath of a search

Effective leadership is a core ingredient of an effective SAR system. Without these volunteer leaders, SAR would not function in Nunavik.

“We have go-to people for search and rescue in my community who are involved before the police are ever involved.”

– *Community responder, Nunavik Roundtable on SAR.*

“The people are the greatest strength.”

– *Community responder, Nunavik Roundtable on SAR.*

“You need a good coordinator. Someone who can take charge. Who knows how to do everything.”

– *Community responder, Nunavik.*

3.2 COMMUNITY SUPPORT

Community responders often enjoy considerable material and moral support from communities during searches. During SAR operations, communities pull together to assist the searchers, making meals and donating money and essential supplies. As important as the material support received from communities is the moral support. At times, this involves formal recognition of the services that first responders provide. Community appreciation can play a major role in improving morale and helping with the stress of SAR operations.

“Sometimes after a big, good search there will be a celebration. That makes you feel good.”

– *Community responder, Nunavik.*

3.3 CLOSE INTER-COMMUNITY COLLABORATION

Across the region, communities often share volunteers, equipment, and resources, particularly during prolonged searches. Throughout the search for Aupaluk residents Edward and Susie Oningnak in 2003, for instance, 80 volunteers from Tasiujaq, Aupaluk, Kangirsuk, and Quartaq arrived to support the community’s searchers, heading out in teams every six hours, around the clock. During the search, financial donations were received from communities across Nunavik. Similarly, in June 2011, the long and difficult

search for Salluit hunters Frankie Ikey, 41, his son Stas, 20, and family friend Adamie Alaku, 45, who went missing after setting out seal hunting in the vicinity of Deception Bay on 8 June in a 22-foot freighter canoe, brought a wave of support for the community. Searchers from Kangiqsujuaq deployed to Salluit and set out to the search area in their own boats, while the community chartered a Twin Otter from Iqaluit at a price of \$8,000 a day.³⁷ This level of inter-community cooperation and support is not exclusive to Nunavik. In Whapmagoostui and Kuujjuarapik, Inuit and Cree responders often search together, although this can create confusion over funding responsibilities and jurisdiction.

“We often work together. Sometimes, I’ll even coordinate searches for other communities.”

– Community responder, Nunavik.

3.4 INNOVATIVE SOLUTIONS FROM THE KATIVIK REGIONAL GOVERNMENT, MAKIVIK CORPORATION, AND THE NORTHERN VILLAGES CORPORATIONS

The KRG, Makivik Corporation, and various Northern Villages Corporations have developed innovative funding and programming initiatives in support of SAR prevention, preparedness, and response – often to address major problems and gaps in the SAR system.

At the local level, a variety of SAR prevention activities have been launched, from building cabins for shelter on the land to marking the trails between communities.

At the regional level, the cooperation between the KRG and Makivik to purchase fast rescue boats for each community to address limited local capacity in the aftermath of the Ungava Bay Tragedy is a prime example of an innovative solution to a pressing and immediate problem.

Kativik Civil Security has undertaken a wide array of SAR initiatives, including its marine SAR training efforts, the maintenance of the marine rescue stations, the provision of satellite phones and Garmin inReach units, its support for the establishment of the CASARA chapter in Kuujjuaq, the provision of insurance for responders and divers, and its SAR prevention activities. All of these serve to bolster local capacity on a regular basis.

To these activities will be added a major new project supported by the Search and Rescue New Initiatives Fund, entitled Closing the Gaps: SAR Data Management and Research in Northern Quebec (Nunavik). This project will address the current gaps and lack of standardization in SAR information gathering, reporting, and data management among the many SAR partners and actors operating within Nunavik. With this funding, Kativik Civil Security will examine past SAR cases to identify what has caused past incidents. Among the projected outcomes are the development of a centralized database that will connect SAR partner organizations, the utilization of nationally accepted data fields, the provision of appropriate training and tools, and improvements to evidence-based decision-making through enhanced reporting functionality. The case data and statistics gathered by this project will bring clarity to the status of SAR in the region and could provide the impetus for future investments. As part of the project’s focus on SAR training and certification, Kativik Civil Security plans to use some of this funding to provide search master training to community responders to better prepare them for the responsibilities of SAR mission coordinators.

“Everything we have has been developed organically, by need, because, at best, the Coast Guard is 14-48 hours away. Trenton, Halifax, God bless you, you are still 5-10 hours away when we need you. So, what we have to [do] we have to do for ourselves, and we have, and we built it our way. We have no federal or provincial SAR resources in Nunavik; we do it all ourselves and we have to be creative.”

– Kativik Civil Security representative, Nunavik Roundtable on SAR.

The use of the KRG’s Uumajuit wardens for search and rescue activities represents a valuable local tool. Most obviously, without the KRG-administered Hunter Support Program, there would be no search and rescue in Nunavik.

As Craig Lingard, the head of Kativik Civil Security, has pointed out, the KRG has cultivated “a 30-year relationship with the Canadian Rangers, probably more advanced and more progressive than any other region in Canada.” In 1999, for instance, the regional government chose to purchase insurance for Nunavik’s Canadian Rangers, so that they could participate in SAR operations. This was in response to a lengthy Ranger activation process that used to take multiple days

to complete. With the insurance policy, the Rangers could be covered immediately when they went out on a search. In the event of injury or death, Rangers or their families would receive disability benefits or up to \$100,000 worth of coverage.³⁸ This is another example of the KRG developing local solutions to problems rooted in the policies and programs of its federal partners.

3.5 GREATER COAST GUARD ENGAGEMENT

Over the last few years, *some* government officials and community responders have observed greater efforts by the Coast Guard at community engagement, relationship building, and maintaining long-lasting partnerships with communities, municipal governments, the KRG, and Makivik.

In 2015, the Coast Guard had a team of three members dedicated to search and rescue in the North, and it often had to focus only on large population centres. The team now has over 30 members – including Nunavimmiut – focused on improving SAR services across the Coast Guard’s Arctic Region, including in the smaller communities.

The Coast Guard’s launch of the Arctic SAR Project in 2015 and its establishment of the new Arctic Region emphasized the importance of relationship building. In 2018, the CCG Director General of Operations, Gregory Lick, explained that “[t]hese partnerships afford us the chance to learn at their feet so that we can better serve them and their communities, and to allow the communities to become actively involved in the search and rescue system... [O]ne of the big revolutions in our thinking is that we shouldn’t be bringing southern solutions to the North. The North should absolutely be asking and developing those solutions with our support, but they should be the leaders in developing those solutions.”³⁹ His comments encapsulate the Coast Guard’s approach: it is not just about “made-in-the-North solutions, but made-with-the-North solutions.”

The process required effort: there were stumbles at first and a steep learning curve. It has taken time to develop trust with community and government practitioners in Nunavik, and it will require a sustained effort to maintain that trust. Further, given the increases in maritime activity and the lack of SAR assets in Nunavut and Inuvialuit Nunangat, the Coast Guard focused its initial efforts on these areas. Its rationale was that

every Nunavik community had a fast rescue craft and trained crew due to the efforts of the Kativik Regional Government. Since new Coast Guard Auxiliary units have been established in many Inuit communities in the Northwest Territories (NWT) and Nunavut, the CCG has increased its efforts in Nunavik.

The Coast Guard’s community engagement and relationship-building efforts have been bolstered by the fact that it has been the same people carrying out these activities throughout the year (not only during the summer months) and for extended periods of time. To Northerners used to federal agencies sending new personnel up every year, who often ask the same questions again and again, this is a positive development.⁴⁰

While some responders in Nunavik have experienced the intensified relationship-building efforts of the Coast Guard, others still feel that they have not received the same level of support as other parts of the North. As one participant in the Nunavik Roundtable on SAR explained, “I’ve heard that they are doing more, but I’ve still not seen it. I’ve not seen them in my community. I’ve not heard of them visiting other communities. I will have to see it myself.”

“We are developing a relationship with the Coast Guard and the Coast Guard Auxiliary. I’m going to say developing because although we’ve done good things, we’ve still got a ways to go. We look forward to enhancing that relationship.... A better relationship has developed over the last few years. We are trying to go forward together.”

– *Kativik Civil Security representative, Nunavik Roundtable on SAR.*



3.6 THE TRANSITION OF THE FAST RESCUE BOATS INTO COAST GUARD AUXILIARY UNITS

Since 2004, the fast rescue boats purchased by the Kativik Regional Government and Makivik have had to bear the burden of marine SAR operations in Nunavik. In the past, these crafts and their crews have often “gone it alone,” executing SAR operations independently and without support from the Coast Guard or the JRCCs. The KRG and municipal governments have borne the costs involved in the searches, training, and equipment maintenance. Relationship building with federal partners largely rested on the shoulders of Kativik Civil Security.

As of February 2023, every marine rescue station in Nunavik has been or is in the process of being transitioned into a Coast Guard Auxiliary unit. This has been a long and difficult process. Relationships had to be re-built, and new and flexible approaches, tailored to Nunavik’s unique situation, had to be developed. A few years ago, this would have fallen under the challenges section of this report, and there are still issues to be worked out. For years, efforts to establish the Auxiliary in Nunavik were marked by the absence of dedicated funding to bring units online, as well as by the unilateral imposition of Southern CCGA rules that failed to account for Northern realities (such as refusing to allow crew members to carry firearms in rescue boats for predator control). The transition was further hampered by requests that vessels be upgraded and retrofitted with no additional support provided, a lack of administrative support, and siloed training practices that simply did not work. In its 2018 report *When Every Minute Counts*, the Standing Committee on Fisheries and Oceans highlighted some of these problems:

“While visiting Kuujjuaq (Quebec), committee members heard that the model used to recruit CCGA members in the rest of the province is not effective in the Nunavik region. In part because communications between communities and communications between CCGA units and CCGA-Q [the CCGA in Quebec] are often cut-off due to bad weather and poor communication networks. As a result, members recruited in remote communities are often not provided timely training or any follow-up communications, leading them to lose interest. The committee is concerned by this possible loss of local volunteers

and encourages the CCGA-Q to revise its recruitment process for the Nunavik region.”⁴¹

So, the process has been difficult and slow, but progress has been made. While the transition to the Coast Guard Auxiliary in Nunavik does involve some loss of regional autonomy, there are benefits. The absorption of the fast rescue craft into the Canadian Coast Guard Auxiliary will allow more of these costs associated with marine SAR to be shared with and/or assumed by the Auxiliary. The Canadian Coast Guard will cover the costs when these units are used for SAR operations. The Coast Guard and Coast Guard Auxiliary should find and provide steady training for the units. In this way, a considerable portion of the financial burden should be lifted off the shoulders of the KRG.

The benefits that these Nunavik CCGA units will bring to the broader SAR system are great. In laying out its mission and mandate, a draft Coast Guard Arctic SAR Project report explained that “developing Auxiliary capacity represents an opportunity to marry the strengths, skills, and knowledge of the CCG SAR framework with the strengths, skills and knowledge of the Arctic coastal communities with centuries of local experience.”⁴² These Coast Guard Auxiliary units will be able to deliver faster marine SAR response times (as they have been doing since they were stood up as marine rescue stations), encourage the reporting of SAR cases, and provide a platform through which to integrate the Inuit Knowledge of community responders into the broader SAR system. Units will be provided with consistent training opportunities funded by the Auxiliary, augmented by dedicated training staff from Coast Guard Arctic Region. Armed with this training, reliable boats, their knowledge of local geography and environmental conditions, and the ability to work

with the JRCCs and other federal SAR assets, Auxiliary members can effectively and safely deliver SAR services. These units can reduce communities' reliance on CCG icebreakers, which are often situated hours or days away from the location of an incident, and on RCAF fixed- and rotary-wing aircraft, which are based thousands of miles to the south.

Participation in Auxiliary units encourages skill building and intergenerational knowledge exchange through training and collective responses on the land. As a new member gains experience, they can pass along their acquired knowledge to another recruit – all of which strengthens the overall SAR system.

Across the country, CCG Auxiliary members play important roles as “SAR detectives” by collecting information about SAR cases and providing that information to the Joint Rescue Coordination Centres. In the North, however, this service becomes even more important given the JRCCs' lack of familiarity with the region and the hunting, fishing, and travel activities of its residents, as well as the few alternative resources available to investigate search and rescue cases. Auxiliaries' knowledge of local conditions, marine spaces, and the marine activities of their fellow community members makes them uniquely suited to be SAR detectives. During SAR operations, they gather local intelligence on the condition of missing vessels, the skill of crews, and potential travel routes, which they relay to the JRCC. In the case of an overdue boat, for instance, Auxiliary members can call the overdue person's/persons' family/families, friends, or other witnesses to gather more information, including about their travel plans and preferred hunting/fishing areas. Such detective work can also identify false alarms and prevent the JRCC from unnecessarily deploying icebreaker or RCAF assistance, thus saving resources that can be used for other SAR cases.

CCGA members also make essential contributions to marine safety in their regions and communities. Many units educate their communities about boating safety,

the importance of having a sail plan, and the need to bring proper gear.⁴³

Moving forward, further discussions may be required to determine if these units best fit in the Coast Guard Auxiliary's Quebec Region or in a new Arctic Auxiliary chapter with the same jurisdictional boundaries as the Coast Guard's Arctic Region.

3.7 THE INDIGENOUS COMMUNITY VOLUNTEER BOAT PROGRAM

The Coast Guard's initial community outreach and RAMSARD study concluded that many Northern communities would struggle to find suitable SAR vessels that met all applicable regulatory requirements. As a result, the agency used funding from the Oceans Protection Plan to launch the Indigenous Community Boat Volunteer Pilot Program (ICBVPP) in 2017, which has since been re-named the Indigenous Community Volunteer Boat Program (ICVBP). The program allows communities to apply to purchase a new SAR vessel (generally between \$250,000 and \$350,000), buy required equipment (such as communications and navigation gear), and construct proper storage facilities for their boats.

While, thus far, only the Nunaturlik Landholding Corporation of Kangiqsujuaq has benefitted from this program in Nunavik, the Coast Guard announced at the Nunavik Roundtable on SAR its intention to focus the program on the region in the coming years. Since its launch, the program has prioritized providing Northern communities possessing little to no marine SAR capabilities with community SAR vessels. With the fast rescue boats in each of Nunavik's communities, the region was low on the priority list. That has changed. The Coast Guard recognizes that many of Nunavik's communities require new vessels and equipment, and it is committed to providing these assets through the ICVBP. This

will, however, take time. The program only involves \$2 million in funding each year, and that is for use in communities across the country. The Coast Guard could, however, work with Northern Village and the KRG to

“We’ve been doing marine SAR on our own for years. Years. Covering all the costs, all the equipment, all the training, all the responses, without any help. We barely ever involved the Coast Guard. We just did it. We could cut through the tape that way. Get things done. But bringing the fast rescue craft into the Auxiliary means that we can get more support, we can take some of the pressure off us. We can make sure that our rescue boats are recognized and tasked by the JRCCs. This will work if they are willing to listen to us too.”
– *Community responder, Nunavik Roundtable on SAR.*

supplement the ICVBP funding, which would increase the number of vessels that could be acquired for the region.

With access to new boats, Nunavik’s communities will feel empowered with the knowledge that they can safely and effectively execute search and rescue operations and are less reliant on Southern intervention.⁴⁴

“We are going to invest considerable time, effort, and money into Nunavik’s communities.”

– Coast Guard representative, Nunavik Roundtable on SAR.

3.8 THE CANADIAN RANGERS

The search and rescue training provided to Canadian Rangers bolsters the capacity of most communities in Nunavik. While not the case in every community, Canadian Rangers often volunteer as unpaid responders during searches. When searches go on for extended periods of time, the search area is too vast to be covered by GSAR teams, and/or there are insufficient community volunteers, Rangers can be officially tasked and paid for their service, offering an accessible community-based solution that can relieve the pressure on unpaid responders.



While Rangers generally support GSAR operations, they have also been involved in aerial and marine searches in Nunavik. A search for a downed helicopter in 2009 highlights the impact they can have. In July of that year, a Canadian Helicopters helicopter with two on board went missing during its flight from Kangirsuk to Kangiqsujuaq. For six days, JRCC Halifax directed the search operations using three Hercules aircraft, an Aurora patrol plane out of Greenwood, a Cormorant helicopter from Gander, and a Canadian Coast Guard helicopter that was operating in the area. During this time, JRCC personnel did not formally activate the Canadian Rangers, but the Rangers searched anyway. It was these Rangers, who were searching the coast between Quaqtuaq and Kangirsuk by boat, and not the air assets, that spotted the helicopter upside-down in a ravine about 290 km northwest of Kuujuaq. Both occupants were dead at the scene.⁴⁵ While the Rangers often play a leading role in searches, this is not the case in every community. As a community responder explained at the Nunavik Roundtable on SAR, “Rangers aren’t always the best choice in every community or in every incident. Might be other people who have the skills.”

“Rangers are a huge help. They have the skills and training. They are a big support.”

– Northern Village mayor, Nunavik Roundtable on SAR.

Equipment

Individual	Collective
<ul style="list-style-type: none"> • Ball cap / Tuque • Raincoat with pants • Polar insert • Insulated jacket • Pullover Hoodie • CADPAT pants • Boots • Patrol pack • C-19 Rifle .308 with ammunition (200) • Gerber multi tools knife • Lifa base layer (top/bottom) • Canadian Ranger Handbook 	<ul style="list-style-type: none"> • Command post • Bivouac Equipment • HF, VHF and Satellite communication Equipment • Navigation and geo localisation equipment • Austere airstrip Equipment • Ambulance sled with first aid kit and medical evacuation equipment. • Tools

3.9 IMPROVEMENTS TO THE WORKING RELATIONSHIPS BETWEEN SAR PARTNERS

Several of the community responders interviewed for this project noted general improvements to their working relationships with certain government SAR partners, even as much work remains to be done to improve coordination and cooperation. In particular, participants in the Nunavik Roundtable on SAR highlighted positive interactions with Kativik Civil Security, 2CRPG, and CASARA.

“We do listen to local leadership. Whatever we can do, we will do.”

– CASARA representative, Nunavik Roundtable on SAR.

3.10 PRIVATE SECTOR RESOURCES

The generous support provided by private sector entities in Nunavik can have a significant impact on SAR operations. The air support provided by Air Inuit is a great asset during searches. Whether they are simply keeping an eye out during scheduled flights, diverting their airplanes to a specific search area, or chartering out their aircraft, they represent a major asset. Nunavik Rotors is an asset as well, although its helicopters cannot serve the Hudson Bay communities. The Nunavik Arctic Survival Training Center provides search and rescue services to Puvirnituq free of charge, as well as offering GSAR training and diver training for recovery operations.

“We are Inuit-led. We can provide training. We can provide expertise.”

–Nunavik Arctic Survival Training Center representative, Nunavik Roundtable on SAR.

“Air Inuit will divert flights to check our water or snowmachine trails.”

–Community responder, Nunavik Roundtable on SAR.

“As operations manager, chief pilot and vice president of [Nunavik Rotors], Peter Duncan has been flying for over 20 years and has witnessed his fair share of successful rescues and inconsolable denouements.... Another intensely difficult rescue mission involved five people who had been stranded on pieces of ice after a boating accident in the bay. The problem was there was no place to land the helicopter. Duncan had to bring the aircraft close enough to allow the boaters, who were hypothermic, to climb aboard.... There is no other helicopter company in Kuujjuaq. ‘The service that we provide, it’s a specialized form of transportation,’ Duncan said. ‘Being available for search and rescue, that to me is one of the most important aspects of our service.’”

–Rajitha Sivakumaran, “Nunavik Rotors,” *Business Elite Canada*, September 2016.



Martin Scott, the emergency measures coordinator for Aupaluk in 2003, shared the following story with Nunatsiaq News, which illustrates how communities pull together during searches.⁴⁶

I would like to add to the article about the Aupaluk pair who were stranded on the land (May 2), with some more information about the truly remarkable nature of this story.

First of all, some facts to clarify the situation: Edward Saluarsiak, 20, is paralyzed from the waist down, but enjoys driving a snowmobile whenever he can.

On Tuesday, April 22, Edward and Susie Oningnak, 22, took part in a fishing contest about 20 miles southwest of Aupaluk, along with most of the community. When the weather started to get colder with some snow, the two decided to go home early, just before 7 p.m.

When everyone else came home around 9 p.m. in blowing snow, and Edward and Susie had not yet made it back to town, a search was immediately begun by many volunteers. The search became more intense by 3 a.m. with more local volunteers, many of whom would not sleep at all for the next two or three days.

This was the first time Edward had been away from town for more than a few hours, and the nurse felt his medical condition warranted a medical emergency, with the possibility of a burst bladder, kidney failure, and-or internal bleeding.

The KRG and KRPF tried to bring in a helicopter or plane for the next two days, but the weather was miserable, with very low clouds alternately bringing freezing rain, blowing snow and rain. The Sureté du Québec assumed control of the search and rescue operation on the afternoon of Thursday, April 24. The KRG helicopter, piloted by Peter Duncan, with searchers Vallée Saunders and David Watt, arrived late the next afternoon, on April 25, and began searching immediately, while the SQ plane arrived the next morning, on Saturday, April 26.

In the meantime, Tasiujaq and Kangirsuk both sent volunteers in several waves, so that by midnight a group of 12 fresh, out-of-town volunteers joined the Aupaluk searchers, who had been without sleep for over 36 hours. At the height of the search, more than 80 volunteers from Tasiujaq, Aupaluk, Kangirsuk and Quartaq, headed out in teams every six hours, around the clock.

Most family members of these searchers came to support the community as volunteers in the command center, or to help out in the homes of those out on the land and to visit and comfort the families of the lost people. School staff members provided meals for the entire town by operating a restaurant-cafeteria in the daycare center, with the food paid for by the SQ.

This meant nearly 200 people worked as volunteers during the last four days of the search, in a town with a population of only 150!

We must thank all of these people, men[,] women and children, for their tireless work and support, for their energy and time and for their prayers. We thank the SQ, KRPF, and KRG for their support and direction during the search. We thank the communities of Tasiujaq, Kangirsuk and Quartaq for their volunteers. Even Kangiqsualujjuaq was offering volunteers by phone. They were ready to go at the exact moment that we received news that Edward and Susie had been found.

Also, a special thanks to Kangiqsualujjuaq for their very generous monetary contribution to our effort, which helped with expenses that the SQ did not cover. Thanks, too, to all the people from around Nunavik who called to offer support and encouragement. A very heartfelt thank-you to the mayor of Aupaluk, Johnny Akpahatak, and my fellow volunteers in the command center office, all of whom worked around the clock, sleeping on the floor when necessary, to be able to answer the satellite phone and radio calls coming in from searchers at all hours of the day and night.

Some final notes to clarify the story: Even though the SQ decided to officially call off the search due to fading hopes that Edward and Susie were still alive, the local search, with the support of the KRPF, was not about to stop. After the SQ had left, the KRPF and the northern village of Aupaluk continued the search with the helicopter, as seven more 45-gallon drums of fuel were flown in that same day, and teams were scheduled to continue throughout the night and for as many days as it would take to find our lost people.

It was two members of the Tasiujaq team, which was continuing a grid search, who found Edward and Susie when they went off the trail for a break. Edward had the energy and strength to drive one of the snowmobiles back to have some tea and food at the team's qamutiks, which had been left a few kilometers away.

Then, once they were ready to come home, Edward again drove the entire 20 miles back to Aupaluk, since this is the most comfortable way for him to support himself.

To the dismay of the nurse, Edward and Susie were brought straight to their respective homes where they sat and greeted everyone, who then flocked in to welcome them with hugs and kisses and tearful cries of joy. After an examination, Edward and Susie were both found to be in perfect health, several pounds thinner and sunburned, but without any serious problems, and even Edward's toes were not frozen in any way. A miracle and a story of strength and survival, if ever there was one.

As a final note, we are waiting for a debriefing with the SQ, KRPF, searchers, and Edward and Susie, to evaluate our efforts and plan for a better operation next time. A meeting is also planned to determine which groups will assume control of such a serious search and rescue, and to finalize the respective roles and responsibilities of the municipality, the KRG, KRPF, the Sureté du Québec and the Canadian Rangers.

God bless everyone who shared in the wonderful happiness of finding Edward Saluarsiak and Susie Oningnak alive and well.

4. CHALLENGES TO THE NUNAVIK SAR SYSTEM

Search and rescue operations on the water, land, and ice of Nunavik are often challenging. The region's vast size – over 500,000 square km, with 2,500 km of coastline and over 7,000 islands – adds a level of difficulty to any search. When combined with the cold climate, it makes time the enemy of all responders. These are significant challenges – and the most obvious. Search and rescue responders operating in Nunavik have identified a wide array of other difficulties that hamper effective SAR operations. The following issues are not provided in order of importance – save for the last, the mental health challenges that responders endure, which many identified as the most pressing and severe issue they face.

4.1 A LARGE AND INCREASING SAR CASE LOAD

The large number of people who regularly go out on the land in Nunavik, combined with the region's austere environmental conditions, means that on-the-land accidents and lost people are frequent occurrences. Past research has shown that, in Nunavik, deaths caused by accidents – many of which occur on the land – are more than three times the provincial average: there are 11.5 deaths per 10,000 residents in Nunavik compared with 3.0 per 10,000 throughout Quebec.⁴⁷ As one community responder from Nunavik noted, "Even the best people on the land can run into trouble. They can have all the skills, all the gear, all the knowledge, but things can still go wrong. We have a hard environment." When experienced and well-prepared Salluit hunters Frankie Ikey, Stas Ikey, and Adamie Alaku disappeared in June 2011, it was sunny and mild, with good ice conditions. They departed the community with hunting gear, a satellite phone, and a High Frequency Band (HFB) radio. They did everything right, and things still went wrong.

Community responders throughout Nunavik have highlighted that changing environmental conditions have intersected with the failure of some people to take sufficient fuel and equipment on the land and water, the loss of traditional skills and knowledge, and the overreliance on technology. Together, these factors have increased the dangers of personal travel, affecting safe access to harvesting grounds, disrupting travel between communities, and causing high SAR incident rates, injury, and deaths. Many responders also confirmed how the pressures of food insecurity often force harvesters to travel further afield and in poor conditions, increasing their risk. Many harvesters are forced to go on the land without the necessary equipment and supplies because of the extreme expense involved in purchasing these materials. As one community responder at the Nunavik Roundtable on SAR noted, "Not many families can afford to get sat phones, and we don't have towers for

VHF radios, so there is no way of communicating, and some people can't afford a communication tool, so they leave unprepared and with no ability to communicate if they get into trouble." Others choose not to bring SPOT devices, GPS units, or satellite communication tools when going out on the land and waters of Nunavik.

Many responders explained that some community members see search and rescue as an "on-the-land gas service." These individuals purposely go on the land with insufficient fuel, knowing that a search will be declared and someone will bring them gas for their machine. As one responder highlighted, "Search and rescue is not a gas service. We are intended for real emergencies. When we are called out for something that is not a real search and rescue, it just adds to the wear and tear on the searcher and their equipment. And it's not necessary."

Another major issue identified at the roundtable was the role that alcohol and drugs play in some searches, the majority of which go unreported. As drug and alcohol abuse increases in communities, so too do search and rescue cases. There is limited support for people struggling with addiction in Nunavik. Noting the lack of treatment options and their link to an increasing SAR case load, one community responder noted that "it really shows that SAR is about everyone. This needs everyone on board."

On the marine side, sea ice reduction has led to longer boating seasons, with boaters travelling earlier in the spring and later in the fall, when weather and travel conditions are their most uncertain, increasing the hazards to which they are exposed. Community members in the region have also reported more severe and unpredictable weather and sea states. There is concern amongst responders that marine traffic will grow in the region, including by bulk carriers, pleasure craft, and cruise ships, and place a growing strain on the region's limited SAR resources. As one responder asked at the Nunavik Roundtable on SAR, "Who is responsible for these people? For non-beneficiaries? Are we? Are we prepared for this?"



On the ground side, changes to traditional travel routes have increased the risk of becoming lost in unfamiliar areas, running out of gas, breaking through unexpected areas of thin ice, and having to travel over rough ice and/or land, resulting in snowmachines and other equipment being lost and damaged. Thawing permafrost is also making travel by ATV more challenging in the summer months, while the early melt and late freeze-up of lakes, rivers, and sea ice in the shoulder seasons (spring and fall) make travel routes more difficult and dangerous. Eco-tourism and "southern explorers" also threaten to increase the number of potential SAR cases in the region.

Travelling is made more challenging by a lack of environmental data, particularly on ice and weather conditions. Robert Way, an assistant professor of geography at Queen's University, has recently drawn attention to the fact that "there are fewer stations across Canada collecting information about all four key weather variables: precipitation, snow depth, air temperature and wind speed.... Since there can be hundreds of kilometres between weather stations in northern Canada, many small communities lack accurate information about the weather, which can be dangerous for people travelling on the land."⁴⁸ The lack of reliable information on ice and weather conditions can create risks for Nunavimmiut travelling on the land, ice, and waters of Nunavik – and lead to additional SAR cases.

In 2008, Ivujivik's Adamie Kalingo shared the following story with Nunatsiaq News, which highlights some of the environmental hazards that contribute to SAR cases in Nunavik – and the courageous efforts of the region's SAR volunteers.

"All winter, caribou have been scarce around Ivujivik. The men knew there were caribou on islands 20 kilometres away. And so they kept trying to get to the islands by navigating through dangerous and rough sea-ice.

Twenty-two animals were harvested and butchered by five men. The men hunted individually or in pairs, but met together at dusk.

Part of the snowmobile trail forked where a 90-degree turn was needed to avoid dangerously thin ice. I missed the turn and went ahead on the older trail, which was a lot smoother.

Before I knew it, three snowmobiles towing sleds fell through thin ice. My snowmobile fell through first, then Casey Mark's, then Charlie Paningajak's. It was terrifying.

What I saw was a nightmare: two men were neck deep, with the snowmobiles sinking fast. I was yelling, terrified by the prospect of sinking into the deep dark void.

'Guuti, Ikayungnga! (God, help me!),' I prayed.

The thin ice kept breaking as we tried to get on top. My boots fell off. I lost my mittens. My hands hurt from touching the ice.

After a few harrowing minutes, Adamie Mangiuk reached me and threw me a harpoon tied to a rope. I grabbed the harpoon and tried to get on the ice, but the ice broke. Adamie suggested that I grab the rope.

I heaved and kicked my legs as hard as possible, but I was losing strength. At last I was on top of the ice.

Adamie then went with Ali to where Charlie had fallen in. They threw him a harpoon head attached to a rope. Charlie grabbed the rope, went under for a few seconds and was pulled to safety.

They couldn't reach Casey, who was waiting on dangerously thin ice, perhaps 10 metres away. They radioed for help from the community, using municipal walkie-talkies.

I was unable to move anywhere fast. My wet clothes were heavy. Even removing a rope from the sled was extremely difficult to do.

Ali and Adamie quickly set up a tarp, camping stove and caribou hide for us. Charlie removed his parka during the incident and was getting cold more quickly than me, as I hadn't removed anything. Adamie gave me a pair of mittens to wear, while Ali helped Charlie.

While Charlie was able to sit, I found it difficult because my back hurt. For a while, I knelt, then I decided to rest my feet in the heated tarp, wrapped in a coat.

I concentrated on keeping awake by looking at the tremendous display of the aurora borealis, the brilliant stars and man-made satellites and planes. I was more comfortable then and was not all that cold. The shivering even subsided for some minutes.

Ali gave Charlie his coat, which was too small for him. We radioed that we were pretty well okay, that we were in a heated tarp, with plenty of fuel for the stove.

Four men came to rescue. I don't know much of the details of their ordeal. Three of them lost their snowmobiles to thin ice, not far from the accident site. Casey watched them helplessly. Mattiusi Iyaituk was floating in the water, Saima Mark partially fell in, and Sailasi got wet. All of them lost their snowmobiles. Johnny Luuku nearly fell through and was traumatized to the point of not wanting to return to the accident area. He went home.

Other men on snowmobiles helped by also going to the accident site: Johnny Mangiuk, Lucassie Ainalik, Adami Ainalik and Tivi Iyaituk.

Lucassie Ainalik brought home Mattiusi Iyaituk, and his clothes froze on the way back to the village. Then Ainalik went back towing his fiberglass canoe usually used for retrieving dead seals. He and another person went to get Casey. Casey's clothes were frozen stiff by the time he got home.

Three men brought clothes and a blanket for Charlie and me. We dried off, gained strength and went home.

The accident happened around 8:30 or 8:45 p.m. We got home around 2:00 a.m.

Many people, especially the hunters' wives, became hysterical hearing the news brought by walkie-talkie during the search and rescue efforts. They were just as traumatized as the men who almost sank.

It's been two weeks and a week-end since this incident. My fingers and toes are still numb, in much the same way that our jaw becomes numb after being given the needle. All the survivors, though, will be just fine, according to the nurse.

A lot of people helped us that night. I am grateful to the following:

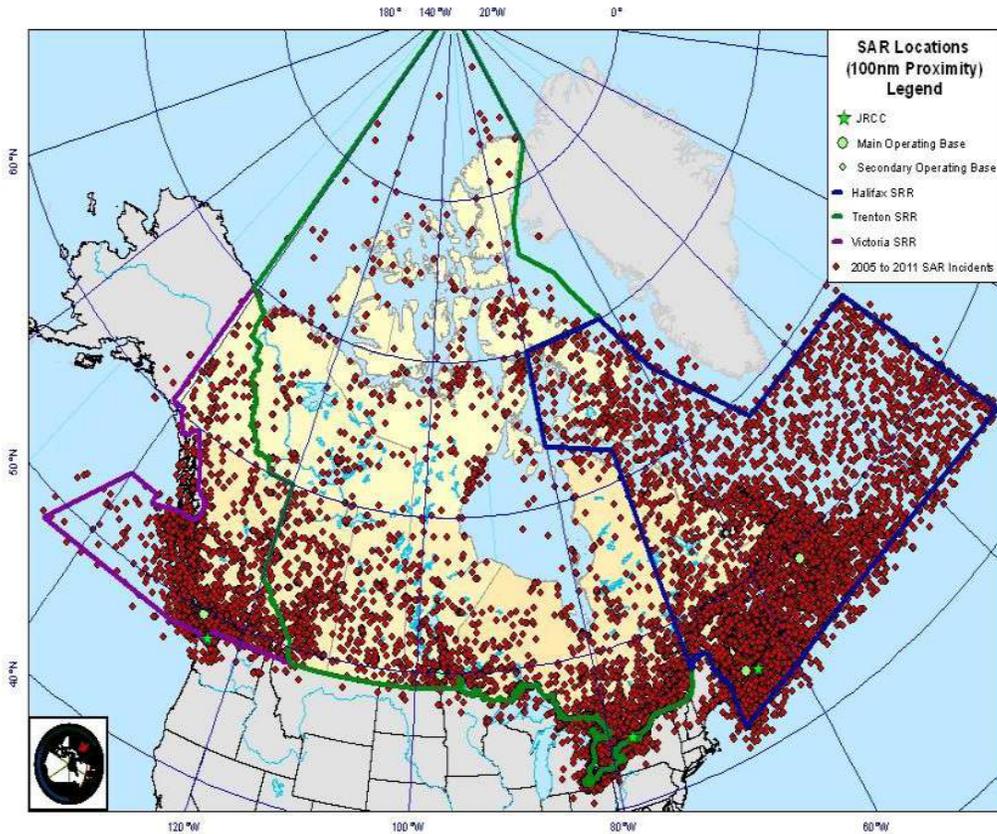
- *Adamie Mangiuk, who saved my life;*
- *Ali Qavavauq, who saved my feet and Charlie Paningajak;*
- *Sailasi Usuarjuk, for saving Mattiusi;*
- *Quitsak Tarriasuk, the elder who coordinated the rescue;*
- *Johnny Mark, for coordinating the rescue;*
- *Lucassie Ainalik, for rescuing and transporting Casey and Mattiusi to the village;*
- *Susie Kalingo, Louisa Paningajak and others for getting clothes and blankets ready;*
- *Qijuk Qaunnaaluk, for standing by on FM to keep people informed; and,*
- *Johnny Luuku, who initially responded with three other men."⁴⁹*

4.2 UNDER-REPORTING OF SAR CASES

The high number of SAR cases that community responders face is not reflected in the official record. SAR cases in Nunavik are often not reported to the responsible government agency – they are handled at the community level.⁵⁰ As a result, the SAR data for the region, which guides SAR planning and is used to justify the allocation of resources at the federal level, is incomplete and inaccurate. As one participant at the Nunavik Roundtable on SAR explained, "The SAR we do locally without disturbing other authorities is done a lot. [Our SAR team] goes out half the time and I don't even hear about it. We emphasize getting things done." As another Nunavimmiut responder pointed out, "We've always been told to report – make data. We've never received the training, where to send it, how to fill it out for the communities. We don't know how." Many cases involving alcohol and drugs are never reported to the appropriate authorities.

There was agreement at the roundtable that more needs to be done to collect data and maintain accurate records to support decision making. While case files are available in most communities, there is no standardized format or way to consolidate all this information. It is unclear which individual or organization in the community has the responsibility to collect this information. SAR case data needs to be collected in a more systematic manner. The processes need to be simple and intuitive. The importance of data collection and maintaining accurate records to SAR planning and resource allocation needs to be made clear to community responders.

The presence of Coast Guard Auxiliary units that require official taskings to respond and the use of the Canadian Rangers will improve reporting. Kativik Civil Security is also in the process of executing a Search and Rescue New Initiatives Fund project to establish a data management system that will facilitate the collection of SAR data and the reporting of cases.



“The dots on that map are the cases reported to the Rescue Coordination Centre. We all know there are more cases in Nunavik. These dots matter – they justify where SAR resources are placed, they are used in SAR planning. We can’t make good decisions without accurate data.”

– Academic participant, Nunavik Roundtable on SAR.

“Probably over half the cases we never report to anyone.”

– Community responder, Nunavik Roundtable on SAR.

“Calling into the RCC [Rescue Coordination Centre] is not only about assets. It’s about letting the RCC know there is a case going on, even if no Coast Guard ships or aircraft [are] available. A beacon that goes off that is a false alarm is a tracked case; a concern citizens call in, we track that case; a flare is spotted, we track that case. We make sure the information goes to the right people. It’s about tracking those cases.”

– Federal practitioner, Nunavik Roundtable on SAR.



SAR Incident Analysis (2015-2022), shared by JRCC Trenton at the Nunavik Roundtable on SAR. SAR case map (1 Jan. 2012-30 Nov. 2022) provided by the Canadian Coast Guard Arctic Region. Red dots represent maritime cases, blue are aeronautical, and green are humanitarian. Given the underreporting in Nunavik, these dots do not accurately reflect the number of actual SAR cases in the region.

4.3 THE IMPACT OF AUSTERE AND CHANGING ENVIRONMENTAL CONDITIONS ON SAR RESPONSE

Harsh and changing environmental conditions not only increase the SAR case load, but also pose significant challenges to all responders. Marine, air, and ground SAR operations in Nunavik are frequently hindered by poor weather conditions, which can slow responses and increase risk.

On the marine side, changing ice conditions can complicate searches. The reduced ice coverage has expanded potential search areas, particularly for short-range community SAR boats looking for other community boaters. With the boating season starting earlier and ending later, responders are also exposed to the harsher spring and fall environmental conditions, increasing their level of risk. Further, the extended boating season means that community boaters are getting into the water before Coast Guard icebreakers have deployed north, limiting the response options if a situation arises. Changing ice conditions also make it more difficult to predict ice drift and characteristics when planning searches.

Worsening ice conditions are also creating challenges around the aerial rescue of search subjects on sea ice. In the past, helicopters and ski-equipped aircraft have frequently landed on the ice to evacuate located individuals. With thinner, less predictable ice coverage, however, this procedure has become more dangerous. In 2013, two hunters were stranded on an ice floe near Arviat, Nunavut, after their boat took on water. JRCC Trenton contracted a Bell 206 Jet Ranger helicopter from Custom Helicopters in Manitoba to pick them up. The helicopter landed on the ice and immediately started to sink, requiring the hunters to rescue the pilot and SAR Techs to jump on the scene. While this event did not occur in Nunavik, it does suggest that as ice conditions continue to deteriorate, the ability of helicopters to land safely on the ice to retrieve search subjects will decline, necessitating a hoist system capability or new approaches to retrieval.

Ice also adds to the dangers faced by RCAF SAR Technicians who may have to jump into Arctic waters during a rescue. With boaters operating earlier in the spring and later in the fall each year, situations may develop in which SAR Techs must jump into ice fields. In late October 2011, three SAR Techs jumped out of a Hercules airplane into ice-covered waters to rescue two Inuit hunters caught in their boat in the ice near

Igloodik, Nunavut. One, Sergeant Janick Gilbert, died on the mission, his body recovered in an ice field of 45% slush with ice pieces up to five feet in diameter. While the investigation into Sgt. Gilbert's death could find no physical evidence that he was struck by ice, the final report emphasized the ice hazard risk facing SAR Techs: "Larger pieces of ice propelled by the actions of the wind and waves may damage a raft, capsize it or eject the occupants. Once ejected from the raft, successive pieces of ice may trap the occupant under water or result in crush injuries..."⁵¹

Changing environmental conditions have also made the conduct of GSAR operations more challenging for community responders in Nunavik, for instance in terms of determining search areas. Searches used to have a better idea of where to start looking for people. Many responders emphasized the growing need for accurate and timely information on ice conditions as they plan their SAR operations and noted how difficult this can be to acquire. GSAR responders reported that worsening ice conditions generally make their job harder – the ice is tougher on their machines, it slows down their movements, and it can be dangerous. Many SAR groups are also struggling to respond during the shoulder seasons (spring thaw and fall freeze-up) and summer, when ATVs often get stuck and require towing. As one responder noted at the Nunavik Roundtable, "We have nothing for the spring and fall. We can't take our ATVs out. We need helicopters." Responders indicated that new training and equipment will be required as ice operations become increasingly complicated.

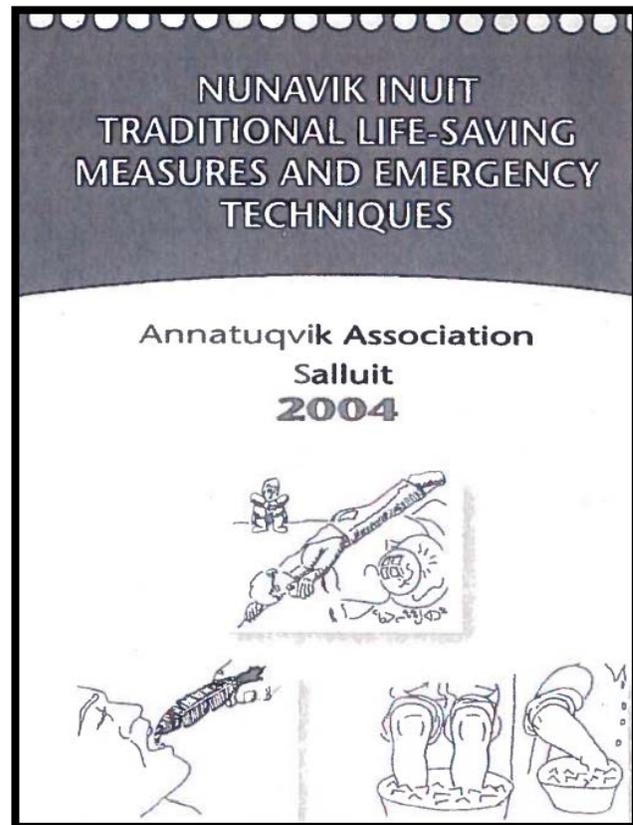
"You know, sometimes we cannot wait, especially in winter if it's 40 below or with the wind. Sometimes, we have to take action. Sometimes I say 'go' and others say 'no, wait for two hours.' We really have to know the area, because in the summertime, we have low and high tide. The water always moves. And the wind, it comes from the west, and the high tide approaches, they make bigger waves. We try to tell the other communities about the tidal conditions."

– Community responder, Nunavik Roundtable on SAR.

4.4 THE INTEGRATION OF INUIT KNOWLEDGE INTO SAR RESPONSE

A major theme at the Nunavik Roundtable on SAR was the need to better integrate Inuit Knowledge into the SAR response operations of the NPS, SQ, and federal agencies, particularly with respect to traditional medical practices involving hypothermia and drowning. Community responders emphasized the need to consistently raise awareness amongst key SAR partners about the value of Inuit Knowledge, skills, and practices, especially in the Coast Guard and the Canadian Armed Forces. Too often, community responders feel like their knowledge is ignored. While the expansion of the Coast Guard Auxiliary and involvement of the Canadian Rangers in rescue operations have provided critical entry points for Inuit Knowledge into the broader SAR system, much work remains to be done.

Community responders emphasized repeated clashes with the NPS and health workers over their desire to use Inuit medical practices. Several shared the story of Billy Augiak and the traditional medical practices used to save his limbs. In January 2018, Augiak and his friend Etuak Iggiyuk were on their snowmachines 50 km from Aupaluk, where they were putting out fishing nets. The two became stuck in slush and could not push their machines out. Eventually, with feet soaked through by the slush, they started to walk back to town. While Iggiyuk took off his wet socks and fashioned new ones out of a sweater, Augiak did not, and an hour into the walk, Augiak was too wet and cold to continue. His friend left him with a thermos of hot water and went to get help, still nine hours away. When Iggiyuk made it back to Aupaluk, he alerted Mayor Johnny Akpahatak, who immediately raced out to pick up Augiak. Fearing that the man's feet would be amputated if he were taken to the medical centre, Akpahatak took him home instead. After two hours, they cut Augiak's frozen boots off with an axe. Akpahatak then put Augiak's feet in a plastic bag filled with snow. While police officers and medical centre nurses wanted the man taken to the health centre for monitoring, Akpahatak would only agree if they kept his feet in the snow, which they did for three hours before he was transferred to Kuujuaq by medevac, where he spent two weeks recovering. Augiak's feet were not amputated.⁵² While rapid rewarming is the accepted practice for treating frostbite in Western medicine, with the goal of returning as much blood flow as possible to the affected area, Inuit methods call for immersing the affected area in cold water, snow, slush, and ice for hours (see Appendix C).⁵³



“We want Western medicine to believe us more.”
– *Community responder, Nunavik Roundtable on SAR.*

“This is St. John Ambulance knowledge vs. Inuit knowledge. The Western approach is to do CPR on a drowned body. They don’t spend enough time doing it. In Inuit Knowledge, we know it can take six hours for a drowned person to recover. We have the knowledge to do that. But this knowledge has not been passed to the world. It would be very helpful if it could be integrated into training practices. The world would benefit.... We have been talking about this for years now, but nothing has been done.”

– *Community responder, Nunavik Roundtable on SAR.*

“As a first responder for over 30 years, I was caught in between. I wanted to do it the Inuit way and the St. John Ambulance way, the Red Cross way, which is start the CPR right off the bat. So I was at two different options, pathway[s]. So I had to choose one, and I made sure we tried the Inuit way. After about five to ten minutes, we proceeded with CPR and transport to the community. The individual did not survive – he had a broken neck. But both worlds need to work together.”

– *Community responder, Nunavik Roundtable on SAR.*

Drowning is a far too common occurrence in Nunavik's communities. Over the span of ten years, for instance, four people drowned in the Akulivik River. When a fifth individual drowned in 2014, a 25-year-old man, Inuit on the scene attempted to use traditional methods to revive him.⁵⁴ The victim is placed on a slant with the head downhill, the legs higher than the head, and both the abdomen and chest resting on the ground – a position that allows the water to drain from the airways. Then, the responders must wait as froth or air bubbles appear at the mouth and nose, which cannot be punctured or disturbed because it will provide the first source of breath for the victim. It can take up to three hours for the victim to re-inhale the air bubbles. During this process, the responder must remain as quiet and non-intrusive as possible (see Appendix C).⁵⁵ In sharp contrast, Western medicine goes immediately to CPR, the mouth is cleared of any bubbles, and efforts at resuscitation are generally stopped after 30 minutes. During the incident in Akulivik, the police stopped the Inuit from attempting to revive the man using their medical practices.

During the tabletop exercise at the Nunavik Roundtable on SAR, which closely resembled the 2003 Ungava Bay Tragedy, community responders repeatedly brought up the importance of using local and Inuit Knowledge when planning SAR responses. The government practitioners and responders present also acknowledged and emphasized its importance. This discussion focused on the Canadian Search and Rescue Planning Program (CANSARP), which is an automated search-planning tool for calculating drift plots and conducting search planning and effort allocation. In all maritime searches, the JRCC uses it as the primary tool for search planning. During the Ungava Bay Tragedy, community responders felt like JRCC Halifax ignored their knowledge about how the currents work in Ungava Bay and did not input their information into the CANSARP. Coast Guard personnel at the roundtable emphasized the importance of local and Inuit Knowledge on such topics as how the currents work, the wind, the unique drifts, and on-scene weather. This information can be plugged directly into the computer model. As one Coast Guard member explained:

That's exactly the information that we are looking for. This is a tool. It is not perfect; it depends on the information that get[s] put into it. What comes out

of it is only as good as the information that goes into it. So having the local knowledge is something that, as coordinators, they are absolutely desperate for. It is something that is honestly often a struggle to actually get this communicated back to the RCC. It tends to get out somewhere, but there always seems [to] be a break in the chain somewhere. But if you have local knowledge of currents, tides, winds, feed that into the RCC, and they can plug that right in and make this so much more accurate. But absolutely, it needs to be a two-way communication; we need that information from on scene.

Federal practitioners understand that local and Inuit Knowledge can greatly improve SAR operations. Appropriate mechanisms need to be put into place to facilitate the sharing of this knowledge and to mend the "break in the chain."

"We have to ensure that whatever model, whatever process we take going forward, the knowledge that we have of the currents, the drift patterns, has to be considered and respected and brought into your paradigm. It's not just the outside weather and thank you for your time and go over there. It's not enough. We have to be respectful of our traditional knowledge."

– Craig Lingard, Kativik Civil Security, Nunavik Roundtable on SAR.

"One of the things we have been trying to do is determining what traditional knowledge exists and incorporating it into our operations. We're not there yet, and we recognize that."

– Federal SAR practitioner, Nunavik Roundtable on SAR.

4.5 THE LIMITATIONS OF THE NUNAVIK POLICE SERVICE

Community responders in Nunavik are concerned that the Nunavik Police Service does not have the capacity to serve as the lead agency for ground search and rescue in the region. This is a case in which the mandate does not match the agency's capabilities – a reality of which the police service is aware (see Appendix B). Its officers do not have the knowledge of the land or the skills to lead or even participate in SAR operations outside communities. As a result, it defers the coordination of most SAR cases to the Northern Villages or the Canadian Rangers. In a letter to the Kativik Regional Government after the Nunavik Roundtable on Search and Rescue, Chief of the NPS Jean-Pierre Larose acknowledged these limitations and explained, "The NPS does not have the expertise or resources to continue to lead this responsibility and ensure optimum results, on a regional or municipal level and it is for this reason, that the NPS requires local knowledge and expertise to do SAR on the Nunavik territories. The NPS believes that a regional authority, specifically the Kativik Regional Government Civil Security Department, should be mandated and adequately resourced to ensure optimized Local and Regional SAR Resources."

Regardless of whether the NPS remains in charge, at least one officer in each community should have SAR training and on-the-land training so that they can participate, especially for criminal searches.

"The police don't know who we are, so we have to spell out the names of the people. They have no idea what we are talking about."

– Community responder, Nunavik Roundtable on SAR.

"We are aware that our officers don't have the knowledge, the expertise, to be in charge of search operations. So we know that working on the protocol is a priority; it doesn't work. There is room for improvement and to put the best resources in decision-making positions."

– Member of the NPS, Nunavik Roundtable on SAR.

"We as a police force have no budget allocated for search and rescues as well. So when we contribute to search and rescues, it is taken from other things that are budgeted. It's been a source of discussion with the government for several years."

– Member of the NPS, Nunavik Roundtable on SAR.

"Kativik Civil Security is more involved in search and rescue in Nunavik than the NPS."

– Community responder, Nunavik Roundtable on SAR.

4.6 SLOW RESPONSE TIMES FROM FEDERAL ASSETS

The tyranny of time and distance has a major impact on SAR operations in Nunavik. Community responders frequently underscore slow response times from Coast Guard icebreakers and southern-based SAR air assets as a source of major concern. Given the distances involved, it can be hours before aircraft arrive on scene during an incident in the region. Incidents in the region can require Cormorants to be flown all the way from Gander, Newfoundland and Labrador, or Greenwood, Nova Scotia, given the limited speed and endurance of the Griffon helicopters based at Trenton. Some community responders in the region also expressed concern that they have less access to SAR services from Coast Guard icebreakers, because most icebreakers are posted further north during the busy summer months.

Participants in the Nunavik Roundtable on SAR highlighted the need to discuss the basing, pre-positioning, and/or contracting of primary aerial SAR units in Nunavik or in nearby places in the North. The recent announcement that three new Cormorants will be built for the RCAF as part of the airframe's Mid-Life Upgrade Project (to be delivered by 2028) will strengthen the CAF's overall SAR capabilities and could improve response times in Nunavik if they are based at Trenton, Ontario. The additional Cormorants should also inspire serious consideration of basing rotary assets in the North, even on a seasonal basis.

"They are hours and hours away. It's hard to rely on them."

– Community responder, Nunavik Roundtable on SAR.

"Sometimes we have no idea how we can get the Coast Guard to come and help us. Since we are tax paying as you are, we want to be able to have [the] Coast Guard when we need it. We know you have it right away down South."

– Community responder, Nunavik Roundtable on SAR.

4.7 THE LACK OF STANDARD OPERATING PROCEDURES

Each community in Nunavik does search and rescue in a different way. There are no standard operating procedures (SOPs) for SAR in the region. “There are 14 communities, 14 ways of doing things,” was a common remark at the Nunavik Roundtable on SAR. While this allows communities the freedom to shape their SAR responses as they see fit, it can slow down response times and generate confusion, particularly during inter-community searches. In past searches involving people missing between communities, responders have had a tough time communicating with one another. SOPs can create efficiencies, distill complex processes into step-by-step instructions, ensure everyone knows their roles and responsibilities, facilitate cooperation and coordination between different agencies and communities, and make searches safer.

“We should make standardize[d] SOPs, and this should be done with Elders. A made-in-Nunavik solution.”

– *Community responder, Nunavik Roundtable on SAR.*

“Standard SOPs will be hard. Communities are different.”

– *Community responder, Nunavik Roundtable on SAR.*

“A standard checklist would help, with tasks all laid out and equipment inspection instructions.”

– *Community responder, Nunavik.*

“We need a clear definition of what a SAR is.”

– *Community responder, Nunavik Roundtable on SAR.*

“People need to understand their roles and responsibilities, where they fit in, and how can we communicate that better between all of our citizens and organizations.”

– *Community responder, Nunavik Roundtable on SAR.*

“The standardization has to come from both sides. One example, the Iridium phones – no one knows how to use them. New outboard motors were changed, slapped on, no training. If you are going to standardize something, make sure the training and maintenance is provided.”

– *Community responder, Nunavik Roundtable on SAR.*

4.8 THE PROBLEM WITH FAMILY SEARCHES

Community responders are uncomfortable with the existing protocol for Level 1 searches, which requires that “family and friends initiate a search within the municipality to ensure that the missing person did not (unknowingly) return to the municipality.” Such a search can be traumatic for the family and friends, and, in some situations, they might not have the skills, knowledge, or equipment to conduct such a search. While responders are comfortable with family and friends being asked to deliver gas or supplies to someone on the land whose location is known and who is in no immediate danger, for “real searches,” they argue, this provision simply “wastes time.”

“We are often told that family members should look for the missing person first. This should be taken off because family members are not always available, because the machine they are using is being used by the person who needs to be rescue[d]. It should be started right away with the search and rescue team because we’ve seen many family members who have been unable to do search and rescue. It’s very uncomfortable to say you have to go look for them because they are [a] family member. When you say that, it’s disturbing.”

– *Community responder, Nunavik Roundtable on SAR.*

“It should not be family members going out to search for other family members. We would like to see trained teams of people who could do this in every community.”

– *Community responder, Nunavik Roundtable on SAR.*

4.9 THE RESPONSIBILITY PLACED UPON MAYORS

The existing protocols for search and rescue operations used by the NPS place a great deal of responsibility on the mayors of Nunavik's communities. The *Administrative and Operational Guidelines* for the region's marine rescue stations establish the mayor of each locality as the authority responsible for the local SAR station. The guidelines give them responsibility for the selection of the stations' crews and captains and for authorizing the use of the fast rescue craft on missions. The guidelines for Level 1 and Level 2 ground searches used by the NPS lay out that "the Mayor of the nearest municipality to the incident activate the municipal emergency operations centre and plan, organize and initiate a ground search." These guidelines also task mayors to work with the chief of the NPS to decide what immediate actions need to be taken and to determine whether the use of an airplane or helicopter is required.

Several Nunavik roundtable participants, both responders and mayors, suggested that this was far too much responsibility for individuals who receive little to no training for these roles. The coordination and organization of searches is a tough task. The protocols, responders suggest, particularly those for ground searches, should say the mayor or *their representative*.

"The role of the mayor in a given situation is overplayed, over-emphasized.... We do have different types of mayors in each community, with different qualities, different abilities... In some cases, they don't have first-hand knowledge of search and rescue operations. So I want you to take that out of your process. Take the mayor out of the process and put in the fire chief or first responders."

– *Community responder, Nunavik Roundtable on SAR.*

"Who will be responsible? Who will get the calls? It is really difficult when we have to rely on someone who is not available. As the mayor, I don't want to be the one to get the call for search and rescue. [The] KRG should create a job for search and rescue. I really recommend that you create a job for that in each community. It's not because I am not concerned about my people, but I have many other things to do."

– *Elected official, Nunavik Roundtable on SAR.*

4.10 LIMITED LOCAL AIR SUPPORT

At the Nunavik Roundtable on Search and Rescue, representatives from the communities on the Hudson Bay coast explained that they are rarely able to secure aerial support from government or private sector aircraft, particularly helicopters. Community responders from the Ungava Bay communities noted that they or their government partners could often track down private sector helicopters and fixed-wing aircraft, but that this was a relatively ad hoc and uncertain practice. It is a challenge to keep an up-to-date list of private sector aerial resources stationed around Nunavik, or of assets in Nunavut and around Hudson Bay that could be deployed to Nunavik.

Chartered aircraft are also extremely expensive, and communities can only afford them for a limited period of time. During the major 2011 Salluit search, for instance, the community of Kangiqsujuaq chartered a Twin Otter from Iqaluit at a cost of \$8,000 a day.

Even when aircraft can be chartered to participate in searches, communities can only support their operations for short periods of time before they run out of aviation fuel, which is what happened with the Twin Otter that Kangiqsujuaq chartered during the 2011 search.⁵⁶

"We need helicopters for the Hudson Bay communities."

– *Community responder, Nunavik Roundtable on SAR.*

"If we have to do a summer search on the land, we'd like to deploy helicopters right away. We don't want to wait. It's so difficult to search on the land with a four-wheeler."

– *Community responder, Nunavik Roundtable on SAR.*

4.11 LIMITED UNDERSTANDING OF THE SAR SYSTEM

Participants at the Nunavik Roundtable on SAR highlighted their confusion over how to report a SAR case and initiate a response. They are unsure about which agencies are responsible and uncertain about how to contact them. Many would like more education on how the SAR system works. There is also a limited understanding of the value that government partners bring to the table, which contributes to why some communities choose to “go it alone.” Community responders do not always know, for instance, the value that working with the JRCC can bring to a SAR operation (e.g., primary SAR assets, information, planning, coordination support, reimbursement and/or insurance, data reporting, the assumption of administrative pressures, etc.).

Nunavimmiut require effective information about the SAR system, how it functions, and how partners work together (e.g., if this type of SAR incident occurs, call this number, and this is what will happen). They also require clear information on the responsibilities of local, regional, Inuit, and federal governments for funding, training, equipment, and the provision of other kinds of support.

“I have no idea how to contact the military or the Coast Guard for searches. I’ve never seen the number.”

– *Community responder, Nunavik Roundtable on SAR.*

“The earlier we can get assets activated, the smaller the search area.”

– *Federal practitioner, Nunavik Roundtable on SAR.*

“This goes back to calling in. If we know about it, we can assist. We do an investigation. If we know about it, we can put a case in and start tracking it. Maybe we have a plane in the area already; we could send it to take a look. But you have to let us know early.”

– *Federal practitioner, Nunavik Roundtable on SAR.*

4.12 JURISDICTIONAL ISSUES

Search and rescue is a complex “system of systems.” That complexity, combined with the limited understanding of how the system works amongst community members, responders, and government officials, can cause delays and complications. Given the number of actors involved, many community members find it difficult to know which agency should be contacted to respond to various SAR scenarios. “We need clarity on who is responsible for what and when,” noted one responder.

Many communities choose to handle marine and ground searches solely at the local level. Several community responders highlighted that this approach allows them to avoid red tape and bureaucracy, sidestep confusion over jurisdiction, and remain in control of searches.⁵⁷ It is also a response to limited provincial and federal SAR infrastructure in the region. Some communities have been “going it alone” at the local level for so long that the idea of communicating and coordinating with higher-level jurisdictions during a search and giving up local autonomy and control is difficult. Speaking about marine SAR, one responder from Nunavik explained that “we’ve been doing it alone for a long time now. We’ve had to. We do the coordinating and organizing. We handle things. Would some help be a good thing? Sure. We can want help, know we have to work together, and want to keep control at the same time.” This understandable feeling adds to the SAR system’s jurisdictional complexity.

Several community responders (particularly those in the Coast Guard Auxiliary and the Canadian Rangers) raised many questions and concerns about SAR decision making and mandates. How flexible is the boundary between a ground and marine search? How much room is there for local decision making if a search is being coordinated federally? Will Coast Guard Auxiliary units be tasked to execute GSAR operations if it is suspected that the missing people are near the coast? Who decides? If harvesters go up on the shoreline on ATVs and go missing, could the Auxiliary be tasked? What role will Kativik Civil Security, the Kativik Regional Government more broadly, and local governments play now that their marine rescue units have become Coast Guard Auxiliary units? The Canadian Rangers do not have an official mandate for SAR, so what is their role? Some roundtable participants, particularly those in local leadership with little knowledge of SAR operations, noted confusion over how, when, and why a Ranger patrol can be officially activated to help with

SAR and wondered who makes this decision. What is the threshold for their official involvement? What tasks can Rangers be assigned, and who/what organizations can assign them?

“Can we have a simpler solution? There is too much complexity worked into the system, and it’s not standardized across organizations.”

–Community responder, Nunavik Roundtable on SAR.

4.13 THE LAND-ICE INTERFACE

Community responders across the Arctic have consistently highlighted the jurisdictional confusion around SAR operations centred on land-fast ice and the floe edge, particularly when this ice breaks away as an ice floe – a common cause of SAR cases in the region. They questioned which organizations had responsibility: Should this be the NPS, SQ, and local GSAR teams, or is it handled by the JRCC and Coast Guard? If a snowmachine or ATV is used to reach the ice, it is a ground search and rescue. This is, however, a situation in which capabilities do not align with mandate. Often, a search on the floe edge, and, more obviously, when ice breaks away from the shore, would be best handled as a marine SAR case by the JRCC and the Coast Guard.

“There is a real need to sort out the complications around the land-ice interface. These complications can have a major impact on searches and lead to bad results. This is a policy question that needs to be dealt with.”

– Academic participant, Nunavik Roundtable on SAR.

4.14 COORDINATION, COOPERATION, AND COMMUNICATION DIFFICULTIES

SAR operations in Nunavik can be extremely complex, involving multiple organizations and search platforms. The 2011 Salluit search, for instance, involved two Hercules, a Cormorant, Canadian Rangers and volunteer ground searchers from Salluit and Kangiqsujuaq, Salluit’s fast rescue boat and five other community boats, two boats from Kangiqsujuaq, an Air Inuit Twin Otter, and a chartered Twin Otter from Iqaluit. That is a lot of moving parts to effectively organize and coordinate. To use them effectively requires familiarity and practice. Greater effort is required to improve vertical and horizontal coordination, cooperation, and communication across the SAR system in Nunavik. Roundtable and interview participants highlighted the need for stronger coordination and

cooperation between those responsible for SAR at the community level, groups from different communities, local responders and the regional, provincial/territorial, and federal agencies with which they work, and these government practitioners.

Coast Guard Auxiliary units, GSAR teams, Ranger patrols, CASARA, and other community SAR responders need to be able to work together as effectively as possible. Without the opportunity for joint training and exercises, however, this is difficult, even though responders often wear many “hats” and are members of two or more of these groups. Coordination can be even more challenging when these groups have to work with one another and with federal responders. One veteran responder – the leader of his community’s Auxiliary unit and GSAR team – explained the communication and coordination challenges that often emerge during searches:

when we’re working with our local searchers, we’re using one system. Then the Rangers are working on their system, MGRS [military grid reference system]. Then the aircraft, the Hercules or Cormorant, are on another setting. I bring this up because the coordinators in the command posts – we need to know what setting people are using. Sometimes I’ve sent people to the coordinates given to me, but because the GPS settings were different, they were sent to [the] wrong spot. One time, with the Hercules on the water, the coordinates they gave us with the settings on the boat [were] over in China.... We need to familiarize and get one setting that all departments will coordinate. When we’re not told what setting is used, we’re sending guys away from people we’re trying to save. We should familiarize and get one setting; is it MGRS, NAD 27, WGS 85? We need one that all departments will coordinate in.

Opportunities for community responders to practice more with outside SAR organizations, particularly the JRCC, would be helpful. It can be a challenge for some community responders to speak effectively to the JRCC, and to understand SAR partners more generally, given specialized jargon (particularly with the military).

“We all need to get on the same page. We are a team. Teams have to practice.”
– *Community responder, Nunavik.*

4.15 THE NEED FOR MORE SAR PREVENTION INITIATIVES

To reduce the strain on community-based SAR organizations, greater investments in preventative measures should focus on whole-of-society SAR education and technological solutions. In Nunavik, there is a consensus amongst community responders that SAR prevention activities need to be amplified. They highlighted how many cases are caused by limited land and marine safety knowledge, by people going out unprepared, and by individuals using alcohol and drugs. More initiatives are required to promote on-the-land skills, vessel safety, and boating safety culture. Many responders insist that on-the-land survival skills should be a part of the school curriculum. Those going on the land and water also need better access to weather and environmental data, which can reduce risk. Several community responders at the Nunavik Roundtable on SAR highlighted the need to improve boating safety in the region and to develop new certification standards for vessels. One suggestion was to improve the flotation of the 20-foot freighter canoe, a vessel that is regularly used by community members but that will sink almost entirely when flipped, leaving passengers with no capsized hull to aid them in getting out of the water.

Across the region, a wide array of actors, community-based organizations, non-governmental organizations (NGOs), and levels of government are providing programming that falls under SAR prevention. Examples include the construction of additional VHF towers by various communities and organizations, the building of safety cabins on the land, the marking of trails between communities, programs that provide community members with SPOT devices or GPS devices, youth programs aimed at on-the-land skill development, poster and sticker campaigns, a wide array of boating safety initiatives, and several past Search and Rescue New Initiatives Fund projects, such as the 2002-2003 Water Safety Prevention in the Inuit Community project. While there are many positive initiatives, there is little cohesion or overarching direction to these activities. There is also little knowledge about the effectiveness of these programs and whether they are reducing the number of SAR cases in the region.

Mapping out what various actors are doing in the preventative SAR space and discussing best practices should be a priority moving forward.

“We should be doing more prevention. We do a lot of [the] on-the-land safety side through the HSP, and we provide hunters with some of the key equipment they need. But we need to do more. We need to do more with the youth.”
– *Community responder, Nunavik.*

4.16 INFRASTRUCTURE GAPS

Community responders have highlighted the lack of critical infrastructure that can prevent SAR cases and assist with responses, such as VHF radio towers and cellular repeating antennas. The Coast Guard does not provide VHF Band coverage in Nunavik. Some Nunavimmiut have used the MF Band coverage that is provided within the 150-nautical-mile radius of Iqaluit, Coral Harbour, and Killinek Island. Communities have had to construct their own VHF towers. Puvirnituk, for instance, has installed a tower in the community at a cost of \$90,000, which provides coverage in a 40-km radius. Many responders suggested that a series of VHF towers along the coast would reduce marine risk and greatly assist SAR operations.

While many responders at the Nunavik Roundtable on SAR promoted a stronger VHF system, others suggested that the population’s near ubiquitous use of cell phones creates new opportunities for SAR prevention and response. The Solara FLARE satellite messaging system, for example, allows people “to text, send GPS and S.O.S. from anywhere in the world right from your cell phone even when there isn’t any cell service.”⁵⁸ Several communities in Nunavik report that they must wait for high tide to be able to launch their rescue boats, which can delay a SAR operation by hours. They would like proper facilities that can support fast SAR responses.

“When we need to dispatch search and rescue, we want them to go right away, because our friends are in danger. Our problem is that we need to fix our marina; we have to wait six hours before we dispatch search and rescue. We’ve been fighting for that for many years, and it’s still not done. We need to fix our marina so that we can go right away. I’ve had a meeting at the federal level and provincial level about this, and we’re still waiting. It’s very frustrating for us to wait for high tide.”
– *Community responder, Nunavik Roundtable on SAR.*

4.17 EQUIPMENT AND SUPPLY GAPS

SAR equipment gaps represent a longstanding source of concern in communities across Nunavik. Many of the fast rescue craft in Nunavik's communities are over 20 years old and are showing their age – they require replacement as soon as possible. Further, even though a community may have a suitable SAR vessel, it can be difficult to acquire and maintain the appropriate technical equipment required for effective marine searches. While the expansion of the Coast Guard Auxiliary and the Indigenous Community Volunteer Boat Program may work to address these challenges, it will take time.

On the GSAR side, while some communities use community SAR snowmachines and ATVs, many responders must use their personal machines and equipment during searches. While responders can obtain reimbursement if they prove that their machine was damaged during a search, there is no compensation for regular wear and tear on vehicles and equipment (despite the rough terrain and seascapes in which SAR personnel operate). Referencing snowmachines, multiple community responders highlighted that “this is their tool, this is how they get food for their families.” A fully equipped responder could go on a search with between \$40,000 and \$50,000 of their own gear – “that’s a sacrifice.” Although each community has different equipment requirements, community practitioners point to the common need for snowmachines, ATVs, boats, technical rescue equipment, survival gear, safety materials (such as helmets), and camp supplies – or for better compensation for the use of personal equipment. Given that they are providing an essential public safety service on a volunteer basis, community volunteers argue that they should be given greater access to the equipment (or compensation) they require.

These requirements extend to critical supplies, such as fuel. In some communities, fuel depots close early in the evening, and community responders cannot access the fuel required to conduct their searches. SAR teams need fuel caches or after-hours access to gas stations to fill up their tanks before heading out on searches.

Various government programs, including those developed by Kativik Civil Security, have provided responders with sophisticated technical equipment, such as satellite phones and inReach devices. Some

responders, however, struggle to properly use this equipment, highlighting the need for ongoing training and education.

“People going out on searches, with everything else, they are sitting on \$40,000 of their hard-earned money, all their equipment, their tools, their clothing; they are using almost a whole year’s salary to go out and search for people. Something has to be done, because the guys from Nunavik are doing the job of the feds and everybody else, with our own resources, and we are saving a lot of money for government institutions. We have to help the volunteers out.”

– Community responder, Nunavik Roundtable on SAR.

“So search and rescue is hard on everyone and their machines, the ones they use everyday.... The wear and tear is not good when they need to be out hunting, looking for food for their families.”

– Community responder, Nunavik Roundtable on SAR.

“We have an ageing vessel. Over 20 years old now. We have a lot of corrosion on it. Some lights are not working. Navigation lights. Starboard and port lights not working. Trimmers not working. New vessels nowadays have a lot of instruments, like thermal vision cameras on top. We haven’t got that yet. There’s a lot of times we do search and rescue at nighttime – that instrument would be helpful. And updated training for search and rescue vessels.”

– Community responder, Nunavik Roundtable on SAR.

“People prefer to use their own equipment. They know the equipment; they know who has used it before. They know if it’s been damaged. They really have a familiarity with [it], know how to use it. But if they’re going to do that, they need to make sure that insurance is in place, because there are stories of snowmachines not being insured. Need to keep up maintenance.”

– Community responder, Nunavik Roundtable on SAR.

4.18 TRAINING GAPS

While acknowledging the efforts by Kativik Civil Security to provide advanced marine SAR training over the years, community participants in the Nunavik Roundtable on SAR emphasized the need for greater access to training, particularly for GSAR. They would like to see courses regularly offered in basic and wilderness first aid, traditional medical practices, radio operation, navigation, technical SAR skills, and knowledge of the SAR system. Even when training is available at the community level, other occupational demands can limit community responders' involvement. They encourage governments and the private sector to provide workers with greater support and flexibility for participation in training activities.

At times, the past marine and ground SAR training provided to community responders has been inaccessible and too "southern focused." One roundtable participant commented that he "would like to see Inuit trainers, because many of our people are poor in second languages." He went on to explain that "one time, we were having training on the Zodiac, and two Qallunaat came to my community to train. I was a rescue boat captain, and I was the one who ended up training trainees from other communities, because the Qallunaat were just sitting there, not knowing what to do. I didn't know the system, but I was training people. Many men have poor reading skills and cannot read the manual."

Other responders emphasized the need "for core funding to help trainers train better." In the past, for instance, Auxiliary trainers had to pay for their own food – they were not provided with per diems. While this has been fixed, trainers are still going out as volunteers, often using vacation time to provide this service. Several roundtable participants suggested that it was time to pay these volunteer trainers for their service.

Currently, community stakeholders explained that there is little to no formal coordination between the different government agencies responsible for providing SAR training. These agencies should seek to synchronize training schedules and share information on local capabilities. For example, if the Rangers bring in an instructor to teach wilderness first aid, an invitation to participate should be extended to the community's GSAR team and Auxiliary unit. If Coast Guard trainers are running an exercise with a community's Auxiliary unit, they could invite the Ranger patrol and

GSAR team to participate in a joint exercise. Sharing training schedules between government agencies is a straightforward solution to leveraging existing community-based capabilities, realizing cost savings, and improving efficiencies.

CASARA's RPAS program is an example of an innovative training initiative that could have a positive impact on SAR operations in the North. Currently, however, CASARA will only accept a drone operator with advanced qualification certification through Transport Canada, which requires passing a technical exam. A CASARA representative at the Nunavik Roundtable on SAR acknowledged this problem, explaining that, "if you don't have an aviation background, it could be challenging.... Training policy is currently more southern-focused. Arctic pilots likely don't need [the] same level of knowledge because it is uncontrolled airspace, so we need to work with Transport Canada to develop [a] special license or Northern operators."

"Many men have poor reading skills, and they don't know how to read the manuals. Many great hunters don't know how to use technology. They need to be trained. We are talking about a Qallunaat system. A Qallunaat way of doing search and rescue.... We are Inuit."

– Community responder, Nunavik Roundtable on SAR.

4.19 RESPONDER SAFETY

Responders are often searching for family, friends, and neighbours – for loved ones. This can make them feel like they need to go out in unsafe conditions, which increases the risk to which they are exposed. Sometimes the family members of the search subject will ask the responders to go out. It is difficult for them to refuse these requests, even when they know they should.

The NPS also sometimes asks community responders to participate in searches for people who have committed crimes or for those struggling with mental health issues. NPS officers do not have the skills to operate on the land, so volunteers have to guide them to these missing persons. This can put responders into dangerous situations.

"When we have mentally disturbed people that we have to go looking for, we don't have the equipment."

– Community responder, Nunavik Roundtable on SAR

“How do you deal with criminals on the land, or people who are mentally unwell? Who can actually go search for them? How is this done safely?”

– *Community responder, Nunavik Roundtable on SAR.*

“Hardest thing in SAR is to say no.”

– *Community responder, Nunavik Roundtable on SAR.*

4.20 A LACK OF PUBLIC SUPPORT

While community support is generally a critical asset for SAR operations in Nunavik, in some situations, responders have felt unsupported and even under attack. Sometimes community members will pressure responders to go out in terrible weather and, if they do not, will publicly criticize them. Community responders have also been blamed when a search is unsuccessful or when something goes wrong. Social media can be a source of criticism for community SAR responders. This criticism can have a devastating impact on morale.

“It doesn’t happen often, but sometimes community members will put pressure on searchers. Sometimes they criticize. It’s not easy.”

– *Community responder, Nunavik.*

4.21 RECOVERY OPERATIONS

Community responders frequently participate in recovery operations in Nunavik, often at the request of police organizations. They emphasize the limited specialized equipment and capabilities they have for these operations (particularly on the marine side), the lack of assistance and financial support provided by other government agencies, and the mental health impacts of these activities.

Communities struggle to secure the funding and resources – the qualified divers, sonar equipment, and remotely operated underwater vehicles – required for prolonged marine recovery operations. The recent purchase of an underwater ROV by Kativik Civil Security and its training of three operators will help to address this gap.

“Up North, we want them to give their time, use their snowmachines, provide fuel, food, which is very expensive. We want them to look for their loved ones. So to be a volunteer, to me, is a big step ahead of a volunteer in the South. So there is a big gap to be filled there.”

– *Community responder, Nunavik Roundtable on SAR.*

While communities can request financial assistance from the KRG to continue searches after they are terminated by the NPS, SQ, or JRCCs, they are often frustrated by the lack of support these agencies provide. Community participants at the Nunavik Roundtable on SAR suggested that these organizations do not understand the importance of recovering the bodies of missing persons. It can bring closure and healing to families and communities. The September 2016 search for Jobie Nungaq offers a good example. When the boat Nungaq was travelling on went adrift 20 km from the community, Nungaq had made a raft out of plastic food containers. It quickly became apparent that he had not made it back to the community, and the resulting search included multiple boats and a hundred people. When searchers found the containers and his jacket, home-made paddle, and socks, Nungaq was presumed dead. Trenton does not have the mandate to assist in recovery operations, the NPS did not have the capability to assist, and the Sûreté du Québec could not immediately send divers. A local government official noted how difficult this was for the community: “It’s very disappointing. They want to see the body. They are giving out what they can give.”⁵⁹

“We’ve heard you. We’ve gotten the ROV and are training the operators. We hope to be able to deploy this spring. We know how important this is.”

– *Craig Lingard, Kativik Civil Security, Nunavik Roundtable on SAR.*

4.22 VOLUNTEER BURNOUT

The heavy workload, combined with the lack of trained volunteers and the fact that missing persons are often friends and family, can lead to emotional, mental, and physical exhaustion. Searches are not easy. Maintaining a Coast Guard Auxiliary unit or SAR team is not easy. Many community responders wear multiple hats and are involved in several groups that are responsible for SAR and emergency services: some are GSAR members, Coast Guard Auxiliary members, Rangers, and first responders with the fire department and ambulance. The responsibilities and requirements of involvement in these organizations, and the trauma that searches can cause, contribute to high rates of volunteer burnout in many communities.

4.23 VOLUNTEER RECRUITMENT AND RETENTION ISSUES

The level of local involvement differs in Nunavik's communities, with some responders reporting a high degree of involvement and others suggesting that it is hard to recruit volunteers.

In communities where finding enough volunteers can be a challenge, the same people are on call all the time, and the same small group of people responds to all of the searches. In some Coast Guard Auxiliary units, the same people are on call for most of the summer, which hinders their ability to get on the land and hunt and fish for their families. This is unsustainable and can lead to burnout and ineffectiveness.

Across the communities, it is a challenge to get young adults engaged in SAR. Even those who are interested might not have adequate on-the-land experience/skills or suitable equipment. Some participants also suggested that a lack of perceived enticements or incentives make it difficult to recruit new members.

4.24 ADMINISTRATIVE BURDEN

The administrative side of community SAR organizations can be a challenge. This can include SAR preparedness activities, such as setting up training schedules or keeping Auxiliary units registered as non-profit societies. The administrative burden is also heavy during and after a search: summarizing expenditures with supporting receipts, completing invoices, and reporting on the status of any equipment, along with completing all the actual search paperwork. The amount of administrative work can be overwhelming. Many of the coordinators and unit leaders at the roundtable highlighted that the accounting and administration side of coordinating a search and rescue organization is a real struggle.

4.25 THE LACK OF CONSISTENT FUNDING

Nunavimmiut participants at the Nunavik Roundtable on SAR identified the lack of sustained and substantive funding for SAR activities in the region as a major barrier to improving the system. For decades, the lack of federal investment in the region has meant that the Kativik Regional Government, Makivik Corporation, and the Northern Villages have had to bear an unequal share of the burden. The Hunter Support Program is the only government program in Nunavik that has line-item spending for search and rescue – and SAR is not its primary focus. Despite its current role as the lead agency for ground SAR in Nunavik, the NPS has no specific budget allocated for search and rescue. While the expansion of the Coast Guard Auxiliary in the region offers access to federal funding, it will not be sufficient to address the marine infrastructure gaps in the region or to replace all of the ageing fast rescue boats.

The majority of the challenges identified by community responders require significant funding. The current levels of investment will be insufficient. Clear and consistent funding streams need to be established to better support SAR in Nunavik – and they must not flow solely from the limited budget of the regional governance organizations.

“Sometimes there’s not enough volunteers. When Canadian goose arrive in the spring, everyone goes out hunting. There is no one left in the community to be the SAR coordinator or take control of emergencies. This has happened in the past and has led to many issues. Bigger teams with more volunteers might help share the load.”

– Community responder, Nunavik.

“There can be a lot of paperwork. It can be a lot.”

– Community responder, Nunavik.

“We as a police force have no budget allocated for search and rescues as well.”

– Member of the NPS, Nunavik Roundtable on SAR.

“[The] Hunter Support Assistance Program is the only entity in Nunavik that has line-item spending for search and rescue. It was never intended to be as extensive or used as much as it is. But it’s the only funding we have. So we are spending \$7 million over ten years that could more appropriately be helping our hunters and fishers. We need better assistance from our government, and we need a better strategy.”

– KRG representative, Nunavik Roundtable on SAR.

4.26 DIFFICULTY ACCESSING PRIVATE SECTOR RESOURCES

Private industry can be a source of aerial support during community searches and can donate funds and equipment to community SAR groups. It can be difficult, however, for community responders to know what resources are available and to form the relationships required to facilitate this kind of resource sharing.

4.27 THE NEED TO CONSISTENTLY STRENGTHEN RELATIONSHIPS

Nunavimmiut have often felt excluded from the SAR system. During a presentation to the Standing Committee on Aboriginal Affairs and Northern Development in 1998, Jean Dupuis, the base manager for Air Inuit Ltd., explained:

Sometimes in this process, because these people are not in our region—they're outside forces—but they have a second-guessing position in regard to many of the things we do regionally, or they do not trust us, we have to involve them from the first minute into our operations in search and rescue processes in order for them to make this call to National Defence. Sometimes it can take up to 24 or 36 hours before they are convinced it is justified. We live in Nunavik, we deal with these operations from the very first minute, and we don't agree with having to justify to outside forces at different levels of bureaucracy that it's urgent, it's important, and yes, we need to call them now. Then, if we have a civil servant in Quebec who is concerned that, gee whiz, we might get a bill later, and I don't know if I have the budget—we may end up facing a civil servant in Quebec who will not agree because he doesn't find it justified.⁶⁰

Effective cooperation, coordination, and communication will only flow out of strong relationships and equal partnerships. While the situation has improved since 1998, maintaining relationships remains a major challenge.

In the past, provincial and federal government efforts to improve their relationships with the Nunavimmiut involved in search and rescue have been rooted in crisis-response approaches that have proven to be fleeting and inadequate. In the aftermath of the Ungava Bay Tragedy in 2003, the officer in command (OIC) of JRCC Halifax visited Kuujuaq to try to work through the tensions that the search had generated. There was little follow-up, and members of the KRG and Makivik Corporation were still looking for answers five years later. These years brought more incidents in which federal responders ignored local resources, culminating in another series of meetings in Kuujuaq in 2008 and 2009, which brought key partners together to work through communication and coordination challenges. Some traction was gained, spurred on by key individuals in the National Search and Rescue Secretariat (NSS) and Kativik Civil Security who saw the need for a permanent Northern Search and Rescue Roundtable to work through issues and strengthen relationships. Between 2010 and 2016, the roundtable brought together policymakers and practitioners from the three territories, Nunavik, and, on occasion, the provinces to discuss common operating challenges and solutions. The roundtable did improve relations, clarify policies and procedures, and provide a venue through which to share best practices and lessons learned. Then, when the NSS transferred from the Department of National Defence to Public Safety Canada, the roundtable was cancelled with little warning or explanation to the Northern participants. Trust takes time to build and can be lost in a moment.

Recent years have brought improvement, particularly, as already noted, through greater engagement by the Coast Guard. Much work remains to be done to build and sustain the relationships required for effective SAR operations in Nunavik. Community responders continue to note the limited interactions they have had with its personnel. Others worry that the recent positive developments in the Coast Guard's engagement efforts and its focus on improving Arctic SAR may prove fleeting. Responders across the region would like the opportunity to regularly meet with Joint Rescue Coordination Centre and Royal Canadian Air Force personnel. As one community responder at the Nunavik Roundtable on SAR explained, "[The] JRCC, [the] Coast Guard never come to our communities. I've been part of SAR for a long time, and no one's ever been to the community. All of you here, this is the first time I've seen your face, and I've been in SAR a long time. We need to work together."⁶¹

Sustaining relations with JRCC and RCAF personnel can be particularly challenging, given the short time many of them remain in their positions before being posted somewhere else (e.g., the OICs of the JRCCs are generally in the position for only two years).

“There were a couple of ships that came to look for the canoe, but they wouldn’t listen to the people of the region. They would not listen to the hunters who know about the currents of the Ungava Bay, because it goes from west to east in a circular fashion. They would not listen to us.”

– *Michael Gordon, Vice-President, Economic Development, Makivik Corporation, 2009.*

Relationships between the NPS, Kativik Civil Security, and community responders can also be improved. Funding and personnel constraints do limit the time that Kativik Civil Security can spend engaging directly with commu-

nity responders. Some participants at the Nunavik Roundtable on SAR, for instance, felt that the annual inspection of the fast rescue boats by Civil Security technicians should be extended: “What I find also is that I don’t like when we get a visit from Civil Security technicians to inspect our boats [but] they don’t want to stay long. They leave the same day. They will not know the problems if they only stay for not even a day. It is always like they are in a rush. It shouldn’t be like that; if we are rushing, we are going to miss something.” More time should be spent in communities, developing relationships and creating shared understandings of any problems.

All partners, particularly those on the federal side, must continue to work on strengthening relationships.

“Few weeks ago, a helicopter was reported lost and search and rescue activities had to be organized urgently to locate the aircraft and have the chance to save [the] life of the pilot and the passengers. This whole operation was conducted by the Government of Canada without any involvement whatsoever of the local Inuit population except at the very last minute... This situation is not unique and it unfortunately has happened in the past. It is not acceptable to us. May I strongly suggest that any future Search and Rescue Operation involves right from the start the local Inuit authorities? As you know Makivik owns two airline companies, we have helicopters and we have invested over \$3 million from the Heritage Fund in Search and Rescue Boats. We are in an excellent position to participate

to the efforts of Search and Rescue and we think that we can greatly help saving life of those that reported lost on our territory.”

– *Pita Aatami, President, Makivik Corporation, to Minister Van Loan, Public Safety Canada, 10 November 2009.*

“We function as a team. Everyone in this room is on that team. We have to improve how we do that. But everyone in this room is part of that SAR team.”

– *Federal practitioner, Nunavik Roundtable on SAR.*

4.28 MENTAL HEALTH CHALLENGES

Searchers in Nunavik are usually family, friends, or acquaintances of the people for whom they are looking. This makes searching incredibly stressful. Searchers have found missing people who have died from accidents and the elements, and whose bodies are in poor condition. They have found people who have committed suicide. These situations are very traumatic. In these cases, love is a double-edged sword – it is often what drives community responders to keep going on searches, but that same love makes the bad searches, the negative outcomes, that much harder to endure.

While Kativik Civil Security does have a professional they can call in to assist with critical incident stress management, this is often done remotely. The Nunavik Regional Board of Health and Social Services does offer access to some support as well. Some community SAR groups have taken the initiative to organize after-action activities, including sharing circles led by Elders, which allow for debriefing, the sharing of observations by team members, and critical incident stress management. Most community responders, however, do not have access to the required mental health supports – a critical gap identified by almost every participant at the roundtable and by every responder interviewed for this report. Several responders suggested that this was the “greatest crisis” facing the SAR system in Nunavik. There is concern that without sustained action, the region’s “emergency personnel will be wiped out.”

The stories and testimonies about PTSD and the mental health burden carried by community and government responders at the Nunavik Roundtable on SAR provide a window into this crisis.

"We had to bury someone because the ministers at the church [were] not available and because there was no one available to bury the body. It seems small, but it is very big in our mind[s]. Even when our first responders are finished, we have to carry on, we have to break the bad news to the family members. The churches sometimes help, but they are not always readily available, so there needs to be more support. It was shocking. Sometimes when our lives are emotionally high, sometimes we end up being angry, and some people do get angry, even sometimes to the point where they become dangerous. So a support system is really needed in the communities."

"I saw my own son outside of the community. His boot was found first, and then we started following his tread, and I think that is where he was killed. Thank you for helping me to open up, because I never had any support after. It is quite difficult and hard when you are [on] your own. The police were involved also. I have a lot to say about it."

"This summer, we had a very traumatic event. Even now, that incident was just so traumatic that even now the people who were there, both young and old at a camp...it was not that they were lost. It was a situation where somebody – people got hurt, and one of them eventually dies. Even now, after all those months, those young people and hunters – they are great hunters, but the event was just so traumatic that even now, the people who were there are still going through that trauma. It takes a very long time for healing, so they need support. They got support from the Health Board in terms of Social Services – there are Inuit who are working on that to give support to those young people and Elders. They meet them individuals and try to have them open up and talk about it. I feel that that is all part of SAR. We need more of that: we need psychologists, we need Inuit Elders, we need supporters to help them heal, to open up, to get past formalities. So that is very challenging. This type of activity or the job of giving support should be all part of our work."

"There's nothing being done to that area. You look at [the] NPS, and there are no more Inuit officers.... It's obvious. We had many police officers back in the 90s, but they're all gone. If we go in the same direction, our first responders are going to be the same. We'll have to bring first responders in from the South.... We have to rescue our cousins, our brothers, our sisters, our parents, grandparents, and we have so much less resources than what [the] Coast Guard has, [the] NPS has, [the] Joint Rescue Centres have. All our emergency personnel will be wiped out. Our search and rescue is going to turn into what [the] NPS is today."

"We need to utilize local people more to help people with PTSD. We are always relying on outside help, but they don't always have the answer. Inuit need more confidence and stand up and help each other."

"It comes down to having different options for support. Speaking from personal experience, the support I looked for was from people I could relate to, that had similar experience. That kind of thing. For myself, personally, it wasn't going to see a psychologist or a doctor who had never done a search and rescue call before. I wanted to talk to peer support. This is something that [the] Coast Guard has been working on the last few years. We are working to develop that internal peer-to-peer support. It's often a lot more comforting to talk to people who have had the same experience."

"Psychologists from the South aren't going to understand the experiences that our first responders have to go through."

"I, for one, have had PTSD. People ask me, how do I keep going? When we're talking about this, this is a really emotional event for me. I've lost friends. We've lost friends. In Nunavik, whether we are searching in our community or helping searching in other communities, we know the people. It's not just Joe over there, we do it, that's it, that's all. As a male figure, it's hard for us to open up and share our true feelings. In our communities, with the first responders, after any incident, I do a debriefing with them and just them.... It was very hard for me to open up about PTSD because I am a man. Every[one] looks at me; I'm the strong one. We're all like that in Nunavik. There's times that I want to talk to people, but there's people you go to, you confide in, and then they go and tell other people something that's confidential, that's brought and spread and then rumours going about. That's one of the biggest issues we have as Nunavimmiut – who do we talk to?... That peer-to-peer network, confiding in one another – it helped me to release more. At home, I don't want to go [to] big events. I'm not ready to be in public, with lots of people around.... I make people laugh, and I'm laughing too because it's my way of letting my emotions out and helping me to heal. But that certain noise and that certain smell, even 15 years later, will trigger it. But I cope with it, because I have resources I can depend on [an outside psychologist and social worker he can talk to]. I am a guy, so for all the guys that are here with me, please open up. Don't hold it in, because you are going to hurt your family. I've hurt my family without realizing, and with the help of friends and colleagues that I've confided in, I've started realizing. My biggest supporter is my wife; she'll tell me, you were crying in your sleep last night, do you remember that? And I go no, what do you mean, I was crying? I didn't cry. Or I was in a fetal position. I'm not shy to say that; even though I'm a man, I am weak, and if I can get other people to open up with someone, I did my part. So Nakurmiik. Cause PTSD really is one of the biggest things as a searcher in Nunavik. We know everyone, and it's not only the searchers that hurt – it's our families."

5. SUGGESTIONS FOR IMPROVEMENT

5. Suggestions for Improvement

At the Nunavik Roundtable on SAR, community responders and government practitioners and policymakers came up with a wide array of suggestions for how to address the myriad challenges impeding SAR operations in Nunavik.

An important idea expressed repeatedly at the roundtable was the need for “made-in-Nunavik solutions” and for the creation of a “Nunavik model for SAR.” As one roundtable participant explained, “We need optimized regional resources. Because we are on our own, we need to be autonomous. We need the best possible equipment, the best trained people, to be effective. We need proper funding to be able to develop and do the right things.” Any progress on these primary objectives is contingent upon consistent funding streams. “We have to have a talk with the government and have a special funding and a structure for search and rescue,” highlighted one roundtable participant. “Funding is the first step.”

To work through the SAR challenges facing Nunavik, community responders have suggested that an annual Nunavik Roundtable on SAR be established. This roundtable would focus on bringing Nunavimmiut together to discuss issues and share best practices, with provincial and federal agencies invited when required. An alternate suggestion was for the establishment of working groups focused on specific areas, such as SAR prevention activities, operational challenges, policies and programs, lessons learned and best practices, and critical incident stress management.

Many roundtable participants also argued that the transition of authority for SAR operations in the region from the NPS to Kativik Civil Security is required to help achieve an effective “Nunavik model for SAR.” The roundtable made clear that Kativik Civil Security is already doing the bulk of the work on SAR prevention and preparedness and should be given the mandate for response as well. The department knows the communities, has existing relationships with their leadership and responders, is familiar with provincial and federal partners, has a better understanding of the challenges, and is interested in assuming the responsibility. At the same time, the NPS is interested in handing over the responsibility for search and rescue (see Appendix B). This suggestion for structural change was, perhaps, the most dramatic suggestion to come out of the roundtable.

The remaining suggestions are divided into three categories: SAR prevention, SAR preparedness, and SAR response.

5.1 SAR PREVENTION

Roundtable participants forwarded multiple ideas for how to improve land and marine safety and prevent SAR cases:

- Search and rescue teams and Elders should use community radio to educate the public and share their knowledge.
- Funding should be secured to erect permanent markers on the land, at regular intervals, which can serve as way-finders. As one roundtable participant explained, “we need to systemize the trail routes between communities, need to be able to follow them even if we don’t see them.” Another participant suggested that “panic buttons” could be installed on these markers that people could press if they require assistance.
- Cabins should be built on the most commonly used hunting grounds and on the routes connecting the communities to provide people with shelter, basic supplies, and a radio to call for help. Maps need to be provided showing where these cabins are, so that people can find them when in trouble.
- Local, regional, provincial, and federal governments should continue to invest in innovative technological solutions to reduce travel risks, whether this be VHF infrastructure, inReach devices, Solara FLARE, etc.
- Oftentimes, hunters are given inReach or SPOT devices and do not know how to use them. “Something we could do right away, that would have a major impact, is have a Garmin inReach device or GPS, or whatever it might be, activation and education campaign. The idea being that if a device is not registered, it is not going to be going where it needs to if that SOS is pressed. You get that device activated and registered correctly, that signal will go where it needs to go. It’s going to get in the hands of the people who need it. Need a big campaign to get them registered and training on them, making sure they are registered and updated regularly. Campaign on how to use these devices, keep them updated, and get them registered.”

- There should be a Nunavik Roundtable on Substance Abuse to promote education, as well as awareness and safe practices when going out on the land.
- There should be consistent marine safety programs in every community that give people access to information but also to life-saving devices, such as lifejackets.

On-the-land survival skills should be part of the school curriculum and offered through more community-based programs. Youths need more opportunities to learn from Elders. As one community responder suggested, “I can spend an hour building an igloo and be warm the whole night, and if everyone can do that – then if he is stuck overnight, he is going to be fine tonight.” A land-based course should be developed specifically to impart traditional knowledge and survival skills, teach navigation, and develop SAR capabilities.

- All community members must be consistently reminded of what to take with them in their emergency kits, how to remain calm on the land, and what to do if they run into trouble. Community responders should deliver these messages using social media and at community events. If these activities become too onerous for volunteers to lead, an alternative delivery model could have Ranger patrols engaging in preventative activities as part of their official paid duties.
- Need to investigate the impact and potential limitations of emerging technologies like the emergency SOS service provided for certain iPhone models.
- Communities should be provided with bright shoreline lights so that they can be seen from the water at night – and guide potentially lost boaters to safety.

5.2 SAR PREPAREDNESS

Roundtable participants suggested many ways in which to better prepare for SAR operations:

- Every community should have a database that lists the skills and competencies of everyone involved in their SAR and emergency management organizations.
- All municipal, regional, and federal agencies should provide time off, with pay, to allow their employees to pursue training opportunities.

- Community groups should have access to lessons learned from previous searches. This should include maps of where previous searches have occurred over the last decade. These learning materials would help community organizations to train and better prepare for SAR missions.
- Reference cards should be made and maintained for every community, containing the contact information of the local SAR committee or GSAR team members, contact details of all the regional and federal organizations involved, and information on all of the SAR resources in a community. Southern organizations should be provided with these SAR cards so that they know with whom they are working in each community.
- Each community should have a dedicated SAR building where they can hold meetings and store supplies, equipment, and fuel, and which can serve as a command post during SAR missions.
- Think of incentives to encourage people to volunteer for SAR and participate in training. For instance, the KRG and Makivik should work with local stores to get responder discounts for gas, groceries, and supplies.
- A region-wide recognition program is needed to acknowledge the work and sacrifices of community responders. This could involve awards, SAR gear, identifying sweaters, or even uniforms.
- A region-wide recognition program would also help strengthen the SAR culture in Nunavik. As one responder explained, there is a “[n]eed to promote professional attitude and pride in task[s].”
- If Kativik Civil Security’s public safety officer program, currently being piloted in Ivujivik, is shown to be successful, this position should be created in every community. This individual could take on the role of SAR coordinator, along with their other emergency management duties.
- Community and regional responders should do exchanges with Coast Guard, JRCC, and RCAF personnel so that they can better prepare to respond together.
- Kativik Civil Security needs to determine the SAR training needs of each community and start a comprehensive and sustained training program for ground search and rescue. Consistent training opportunities will improve search outcomes and draw in new recruits. “Training is an important aspect for recruitment. They are closely linked,” concluded one community responder.
- A key to such a training strategy would be the translation of all training material and operation manuals into Inuktitut.
- There needs to be a database for all air assets in Nunavik. That could be a policy at the government level, requiring that any air asset must tell the KRG where they are, when, and their contact information.
- The creation of a regional SAR association could help to organize roundtables and working groups, provide direction on SAR policy and planning, fundraise, and ensure the development of a community of practice across Nunavik. Some people want to be involved in SAR but not as searchers – an association may allow people with other skills to help out with SAR.
- Communities need information on who to call and what the protocols are for different situations and different levels of searches. Community responders need clarity on what to do in the wide array of situations with which they may be faced. Decision trees might help (e.g., if this happens, do a, b, and c in that order). Posters, brochures, fridge magnets, and social media campaigns could help distribute this kind of information.
- Community SAR groups should be issued monthly inspection checklists to document the status of equipment and supplies.
- There is a need to investigate ways to get more young adults involved in search and rescue. As one young community responder explained, “As a young guy, I never really heard anything about search and rescue, cause it always stuck to those groups and those groups all those years, how many times they seen their family members out there stuck. I think it’s time as Nunavik to include us, the younger generation, so we’re not stuck with one crew doing all the calls. If it’s a three-day search, we don’t want one crew to be out there for three days. We need to include the younger generation. The younger generation can learn from the first crew and learn that way, so that we don’t have people with severe PTSD.”

- The Nunavik Arctic Survival Training Center should be provided with a formal role in training SAR responders in Nunavik.
- A new Auxiliary region should be created that matches the jurisdictional boundaries of the Coast Guard's Arctic Region.

5.3 SAR RESPONSE

Roundtable participants developed various ideas for how to improve SAR response in Nunavik:

- Inuit Knowledge must be fully integrated into SAR response operations. All parties involved must be willing to use this Knowledge in the organization and coordination of searches.
- RCAF SAR Technicians and Coast Guard rescue specialists should receive training from Inuit responders on traditional medical practices. The Coast Guard Arctic Region has committed to engage with this idea. "I will commit that our rescue specialist will come to learn about how traditional practices around hypothermia, figure out how it is done, and see how it might be applied to CCG practices."
- The federal government should fund the study of traditional Inuit medical practices.
- Communities should be provided with SAR snowmachines and other equipment as required, to be used only during training, exercises, and actual searches.
- Searchers would prefer to use their own equipment, which they know and trust. They should be compensated for the use of their equipment (it should be rented and, if damaged, replaced).
- Community responders should be provided with something like the Canadian Ranger Equipment Usage Rate. During training and official taskings, the military compensates Rangers when they use their own small-engine equipment (such as ice augers, chain saws, generators, and welding machines) and vehicles (including snowmachines, ATVs, dog teams, and boats), according to a fixed Equipment Usage Rate (EUR). This arrangement encourages Rangers to invest in their own equipment and tools appropriate to their local environment, which they can then use in their everyday lives without having to ask the government for permission to do so. Such a program would recognize the "wear

and tear" on the personal equipment that SAR volunteers use to serve the public good, and community responders could use these funds to ensure that their equipment is ready to use at a moment's notice.

- Community marine and ground SAR teams should be provided with SAR go bags. When they need to respond, these go bags would contain key equipment and supplies.
- There is a need to develop standard operating procedures for the region. Every community should have a list of basic procedures for what to do during a search, including all contact information for regional and federal partners. They can work through this like a checklist before, during, and after a search. There can be flexibility built into these SOPs to ensure that there is space for the unique capabilities and approaches of Nunavik's communities.
- Every community needs a trained search coordinator, to guide searches and to do inspections.
- We should have a paid coordinator in each community who is the full-time point of contact for all things related to SAR. This person could organize the searchers, train community members, ensure there is cooperation and coordination between the different groups, check equipment, and ensure that a community is always ready for SAR. This person could keep track of who has what training in the community. This could be a full- or part-time job, but it should be paid work. As one roundtable participant explained, "What I would like to see happen is to create jobs. Not just volunteer jobs. We have firemen that have jobs, first responders. It would be nice to have a department on search and rescue also. It's hard to find volunteers, keep them on the job. But with a true department, it would keep them on the job more and create ideas, for sure."
- The local coordinator should have a designated communication device and known number that does not change. This device would be separate from their personal phone so that they can give their duties to a replacement to combat turnover and allow for vacation or sick days.
- Coordinators need specific training on how to engage with family members and the

broader community. Part of this is teaching them how to deal with community pressure.

- A proper SAR coordination centre should be developed for Nunavik. With duty officers on call 24/7, this centre could provide regional oversight and situational awareness, facilitate greater communication among active groups in the area, and support information sharing. Such a centre could be nested within Kativik Civil Security. The duty officers could keep the JRCCs informed of any SAR cases and transfer to them responsibility for air and marine searches.
- Responders in Nunavik need to work more closely with the JRCCs. Cases need to be reported. To help with this, communities need to be educated on the benefits of working with the JRCCs (e.g., reimbursement and/or insurance is only possible with a tasking number; if the JRCC is alerted they can take on the data reporting and archiving piece, which alleviates administrative pressure on the community, etc.).
- There is a need to have Elders involved in every aspect of SAR. There must be Elders at command posts, helping coordinators plan searches, sharing their knowledge, and reminding searchers of what they need to look out for.
- There is a need to improve early on-scene command and control. Everyone must know the different levels of escalation during a search.
- The Canadian Rangers should be even more heavily involved in GSAR operations or given full responsibility for the conduct of GSAR operations in Nunavik.
- Communities need greater access to air support, particularly on the coast of Hudson Bay. These communities need consistent access to a helicopter. More Nunavimmiut should be trained as helicopter pilots to provide this additional service.
- Financial compensation should be provided to community SAR responders. They should be paid on-call. As one community SAR leader pointed out, "Maybe it's time to pay volunteers for their service. You can still be a volunteer but get paid when you are out doing SAR work. This is really key to long-term retention, to keeping people involved in SAR. An argument for why this would be

different in Nunavik than in other parts of Canada [is] because everyone in Southern Canada might say they deserve the same thing, and we can't afford it. The argument would [be] that in those regions, there are permanent primary SAR assets. So Nunavik is different, and because it is different, maybe it should be recognized that search and rescue can be done differently."

"I would like to see the Inuit in charge in the Arctic. Not the Coast Guard, not the Air Force. We are the people who have been up there for 4,000 years. I would like to see the Inuit lead search and rescue."

– Community responder, Nunavik Roundtable on SAR.

"Put more money into Nunavik, because life has no price."

– Community responder, Nunavik Roundtable on SAR.

"[The public safety officer] is entirely involved and responsible for anything related to [an] emergency. One-stop shop, everything goes to [the PSO]. That project, that program, we're more than willing, happy, to help you create it in your community as well. So, he's not only the fire chief: he's responsible for first responders, municipal emergency plan[s], crews on the rescue boats, [being the] search and rescue coordinator, all of the emergency issues. We think it's the right approach. May be a game changer for us. We need funding to fund it long term."

– Craig Lingard, Kativik Civil Security, Nunavik Roundtable on SAR.

"It sounds like you want a centralized agency at [the] KRG and then community safety officers that can communicate inwards."

– Community responder, Nunavik Roundtable on SAR.

"How much does it cost to send a Herc up? \$25,000 an hour, \$40,000. Spend the money on the volunteers, give us what we need to do the job. We will save money."

– Community responder, Nunavik Roundtable on SAR.

6. RECOMMENDATIONS

The challenges affecting SAR operations in Nunavik are multi-faceted, deep-rooted, and complex. There are few easy answers, and every issue will take time to address. There are, however, core strengths upon which to build, none greater than the skill and determination of the region's community responders. These dedicated SAR experts are willing to share best practices, lessons learned, ideas for improvement, and new approaches that can dramatically improve the SAR system in Nunavik if acted upon.

The following recommendations do not offer specific solutions to most of the challenges identified in this report. Instead, they focus on the structures that might be put into place to begin working through these issues. These recommendations are rooted in the suggestions for improvement made by Nunavimmiut responders at the Nunavik Roundtable on Search and Rescue.

6.1 THE TRANSFER OF PRIMARY RESPONSIBILITY FOR SAR TO THE KATIVIK CIVIL SECURITY DEPARTMENT, AND THE DEVELOPMENT OF A REGIONAL APPROACH

We suggest the transfer of primary responsibility for search and rescue in Nunavik from the Nunavik Police Service to the Kativik Civil Security Department – a move that has support from many community responders, Northern Village leadership, and the police service itself (see Appendix B). Kativik Civil Security should coordinate SAR activities, provide leadership, formulate a coherent regional approach, and develop optimized local and regional resources. Its responsibilities should include the assessment and coordination of the region's training and equipment requirements (particularly for GSAR operations), the creation of a plan to meet these requirements, and the design of standard operating procedures. Nested within the department should be the regional SAR coordination centre that community responders have requested, with duty officers on call 24/7. Kativik Civil Security should continue to work on the community public safety officer pilot program to see if this might offer a solution to some of the regional SAR challenges that responders identified. Finally, it should work with community responders and government partners to co-develop a comprehensive SAR strategy for Nunavik.

The timing is right for such a transition. The roundtable highlighted that support exists for this transition amongst community leadership and SAR responders. The NPS would like to see this transition occur as soon as possible. And it comes at a time when Kativik Civil Security is about to launch one of its biggest projects to date: its effort to build a

SAR data management system and to research past SAR incidents in the region, which will provide the department with the baseline information it requires to make informed policy and programming decisions.

Such a transition will require time, considerable effort, and sustained funding.

6.2 THE ESTABLISHMENT OF AN ANNUAL OR BI-ANNUAL NUNAVIK ROUNDTABLE ON SAR

An annual or bi-annual Nunavik Roundtable on SAR would facilitate the kind of whole-of-society approach to search and rescue prevention and preparedness that is required to address the systemic issues in Nunavik's SAR system. This roundtable could be scaled as Nunavimmiut see fit and focused on community responders and their local and regional government and private sector partners, with provincial and federal practitioners invited as required. It would foster ongoing discussion and build consensus on community- and region-specific SAR strengths, challenges, requirements, and best practices, as well as lessons learned in SAR preparedness, prevention, and response. Its members could co-develop innovative solutions, suggestions for human and physical infrastructure development, and new policies. It could ensure that Inuit Knowledge is fully integrated into the SAR system in Nunavik.

The roundtable would allow community responders to learn from one another and form a community of practice that could be drawn upon moving forward. At the same time, it could serve as a forum in which community members could ask their regional government partners for clarity on policy, procedural, and operational issues. Community and regional responders could use the roundtable to improve their working relationships and troubleshoot the coordination and cooperation challenges that have been identified.

6.3 THE ESTABLISHMENT OF SAR WORKING GROUPS ON CRITICAL CHALLENGES

The Nunavik Roundtable on SAR should be used to identify priorities and create working groups focused on specific topics, such as policies and programs, operational challenges, lessons learned and best practices, funding, and the development of culturally appropriate

mechanisms for debriefing and critical incident stress management. These working groups should be made up of community and government responders and other SAR experts who have a deep understanding of how the SAR system works in Nunavik. These groups could make recommendations to the broader roundtable and to the government bodies responsible for SAR and public safety. It is critical that these smaller working groups be formed as quickly as possible to tackle the challenges identified in this report.

6.4 THE RE-ESTABLISHMENT OF THE NORTHERN SAR ROUNDTABLE

Relationships constitute the foundation of an effective search and rescue system. Relationships allow for the multi-level horizontal and vertical coordination and cooperation required for the execution of SAR operations. They encourage mutual understandings of resources and capabilities, SAR risk, and community-specific needs. Relationships rooted in trust and respect also promote honest dialogue about the challenges and obstacles that weaken the SAR system. When regional, provincial, and federal practitioners and policymakers have made greater efforts at relationship building in the past, they have improved search and rescue in Nunavik. These efforts have, however, been too ad hoc, intermittent, and short-lived.

Funded by the National SAR Secretariat, the re-establishment of the Northern SAR Roundtable (2010-2016), which the Kativik Civil Security Department was instrumental in creating, would allow for the ongoing strengthening of the relationships between interested regional, provincial, and federal partners. This roundtable would involve regular meetings between senior officials engaged in SAR in the Arctic to work through the coordination and cooperation challenges that can impede SAR operations. It would also allow them to plan for SAR scenarios, such as mass rescue operations, that would cross jurisdictional boundaries and require an 'all-hands-on-deck approach.' At the same time, the roundtable would allow Northern practitioners to share common operating challenges and discuss various solutions. They would have the ability to learn from one another, about everything from what works best for SAR prevention to what devices best facilitate on-the-land communication during searches. Both Kativik Civil Security and Nunavut Emergency Management served as chairs of the last roundtable – this practice should be continued.

Taken together, the transfer of responsibility for SAR in Nunavik to Kativik Civil Security, the establishment of an annual or bi-annual Nunavik Roundtable on SAR, the use of expert working groups on critical challenges, and the re-establishment of the Northern SAR Roundtable can start to make progress on improving the SAR system in Nunavik. These measures will, however, require sustained government funding and support at every level, but the investment is worth every dollar. As community responders reiterated repeatedly during the roundtable, this is about saving lives. It is about providing Inuit with the support and tools they need to respond to life-and-death situations on the land to save their neighbours, friends, and family members. At the same time, the SAR safety net also facilitates on-the-land activities, fostering the connection with land, water, and ice that is a requirement for

Inuit physical, mental, social, and cultural health and well-being. SAR also supports the harvesting activities required to feed families, travel between communities, and economic activities, including local subsistence economies, commercial fisheries, and tourism. Search and rescue should not only be viewed as a life-saving measure, but also as a critical component of broader community safety, security, and resilience objectives.

In leaving the Nunavik Roundtable on SAR, one community responder explained, “It really feels like the clock is ticking. Change is needed. We need to make this all work better.” They are right. The cases are increasing and the challenges mounting. The demand for SAR services will only intensify in the future. Strong, collaborative relationships between SAR partners are more important than ever. It is time for action.



ABOUT THE AUTHORS

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Dr. P. (Paul) Whitney Lackenbauer is Canada Research Chair (Tier 1) in the Study of the Canadian North and a Professor in the School for the Study of Canada at Trent University. He also serves as Honorary Lieutenant Colonel of 1 Canadian Ranger Patrol Group and is the network lead of the North American and Arctic Defence and Security Network (NAADSN), funded by the Department of National Defence MINDS program.

Notes

- 1 Kativik Regional Government representative at the Nunavik Roundtable on SAR, 11-13 December 2023. Information on the search was also collected from interviews conducted with Nunavimmiut responders at the roundtable. See also JRCC Halifax, SAR Operations Report Case 1490: Overdue Canoe, Ungava Bay
- 2 Greg Younger-Lewis, "Nunavik closes deal on revamped search-and-rescue fleet," *Nunatsiaq News*, 2 April 2004, https://nunatsiaq.com/stories/article/nunavik_closes_deal_on_revamped_search-and-rescue_fleet/; "Martha Kauki remembered," *Nunatsiaq News*, 29 October 2004, https://nunatsiaq.com/stories/article/martha_kauki_remembered/.
- 3 Michael Gordon (Vice President for Economic Development, Makivik Corporation), Testimony to the Standing Committee on National Defence, 2nd Session, 40th Parliament, 5 November 2009.
- 4 Comment shared by Nunavimmiut responder at the Nunavik Roundtable on SAR, 11-13 December 2023.
- 5 Odile Nelson, "Nunavik remembers Martha Kauki and family," *Nunatsiaq News*, 29 August 2003, https://nunatsiaq.com/stories/article/nunavik_remembers_martha_kauki_and_family/.
- 6 Comment shared by a Kativik Regional Government representative at the Nunavik Roundtable on SAR, 11-13 December 2023
- 7 A collaboration between the North American and Arctic Defence and Security Network and the Kativik Civil Security Department, the Nunavik Roundtable on Search and Rescue – held in Montreal from 11-13 December 2022 – brought together community leadership and first responders, representatives from Inuit organizations, and regional, provincial, and federal officials to strengthen relationships and discuss SAR preparedness, prevention, and response. The roundtable involved over 40 representatives from each of Nunavik's communities and 50 representatives from federal, regional, provincial, Inuit, and non-profit agencies.
- 8 Funding for the roundtable was provided by the North American and Arctic Defence and Security Network, SSHRC Insight Grant 435-2021-1131, Kikkert's Irving Shipbuilding Chair fund, and the Kativik Civil Security Department. Kikkert and Lackenbauer secured ethics approval for this project from the St. Francis Xavier University Research Ethic Board (File 25969).
- 9 According to the Canadian Aeronautical and Maritime Search and Rescue Manual, for maritime SAR purposes, the Coast Guard is responsible for all oceanic, coastal (coastal waters include any tributary's estuary), and secondary waters (as defined in the Canada Shipping Act, 2001), but not inland waters (as defined in section 2 of the Customs Act), except for the Canadian inland waters of the Great Lakes, St. Lawrence River system, and Lake Melville.
- 10 Please note that, unless otherwise indicated, information for this section comes from the presentations provided by regional, provincial, and federal participants at the Nunavik Roundtable on SAR.
- 11 Joint Rescue Coordination Centre Halifax Briefing to the Qikiqtani Roundtable on Search and Rescue, Iqaluit, Nunavut, Canada, 11-13 November 2022.
- 12 Canada, National Defence, "An overview of our search and rescue aircraft," 17 January 2022, <https://www.canada.ca/en/department-national-defence/maple-leaf/rcaf/2020/09/an-overview-of-our-search-and-rescue-aircraft.html>. The RCAF's primary SAR squadrons are 442 (Transport and Rescue) Squadron/19 Wing Comox, BC; 435 (Transport and Rescue) Squadron/17 Wing Winnipeg, MB; 424 (Transport and Rescue) Squadron/8 Wing Trenton, ON; 413 (Transport and Rescue) Squadron/14 Wing Greenwood, NS; and 103 (Rescue) Squadron/9 Wing Gander, NF.
- 13 The RP standard is currently under evaluation. Between 1958 and, at least, 2020, the RP standards were set: "During normal working hours, a fully operational aircrew is to be airborne within 30 minutes of receipt of an alert (RP30), and at all other times a fully operational aircrew is to be airborne within 2 hours of an alert (RP2hrs)." Joint Rescue Coordination Centre Trenton Briefing to the Kitikmeot Roundtable on Search and Rescue, 21 November 2022. See also Canada, National Defence, *Evaluation of CAF Operations – Search and Rescue* (Ottawa: Performance Measurement and Evaluation Committee, October 2020), <https://www.canada.ca/en/department-national-defence/corporate/reports-publications/audit-evaluation/evaluation-caf-operations-search-rescue.html>.
- 14 Canada, National Defence, CJOC Search and Rescue Directive 2021 - 3385-1 (SAR/RDIMS #529476) (Ottawa: Department of National Defence, Canadian Joint Operations Command, 2021).
- 15 Canada, *CJOC Search and Rescue Directive*. Traditionally accomplished by the LEOSAR (Low Earth Orbiting

Synthetic Aperture Radar) system, the program is in the process of transitioning to MEOSAR (Mid Earth Orbiting Synthetic Aperture Radar), which will provide expanded coverage, more accurate locations, faster alerting, and more information to the JRCCs. The CMCC is staffed 24/7 by military aircrew or communications officers, and it provides signal analysis to assist JRCC coordinators and, at times, international partners in the conduct of SAR operations.

16 The CAF is responsible for preparing for a MAJAID, while the CCG prepares for a MAJMAR.

17 See Canada, National Defence, "Operation NANOOK," <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-nanook.html>; Richard Lawrence, "OPERATION NANOOK - EXERCISE SOTERIA (MAJOR AIR DISASTER - MAJAID)," *Esprit de Corps* (11 October 2018), <http://espritdecorps.ca/richard-lawrence/operation-nanook-exercise-soteria-major-air-disaster-majaid>.

18 Canada, National Defence, Assumptions and Limitations, Annex B 33-85-1 (DPNA).

19 Canada, National Defence, *Evaluation of the CASARA Contribution Program* (Ottawa: Department of National Defence, Chief Review Services, November 2014), https://www.canada.ca/content/dam/dnd-mdn/migration/assets/FORCES_Internet/docs/en/about-reports-pubs-audit-eval/230p1028-eng.pdf.

20 DAOD 2020-2, Canadian Rangers, 21 May 2015, <https://www.canada.ca/en/department-national-defence/corporate/policies-standards/defence-administrative-orders-directives/2000-series/2020/2020-2-canadian-rangers.html>.

21 See Peter Kikkert and P. Whitney Lackenbauer, "The Canadian Rangers: Strengthening Community Disaster Resilience in Canada's Remote and Isolated Communities," *The Northern Review* 51 (2021): 1-33.

22 See, for instance, Canadian Coast Guard, Draft Report: Canadian Coast Guard Arctic Search and Rescue Project, n.d., Access to Information and Privacy (ATIP) Request A-2019-00023-DQ-Final; Canadian Coast Guard Arctic Search and Rescue (SAR) Project, Partnering with Coastal Communities to Enhance Arctic SAR Capacity, n.d., Access to Information and Privacy (ATIP) Request A-2019-00025-DQ-Final; Community Engagement and Exercise Team, Community Engagement and Exercise Team Reports, 2018, Access to Information and Privacy (ATIP) Request A-2019-00023-DQ-Final.

23 Peter Kikkert and P. Whitney Lackenbauer, "[Search and Rescue, Climate Change, and the Expansion of the Coast Guard Auxiliary in Inuit Nunangat / the Canadian Arctic](#)," *Canadian Journal of Emergency Management* 1, no. 2 (July 2021): 26-62.

24 Kikkert and Lackenbauer, "Search and Rescue, Climate Change, and the Expansion of the Coast Guard Auxiliary in Inuit Nunangat / the Canadian Arctic."

25 Canadian Coast Guard, "Canadian Coast Guard's Inshore Rescue Boat Station in Rankin Inlet, Nunavut Finishes Operational Season," Government of Canada, 25 October 2022, <https://www.canada.ca/en/canadian-coast-guard/news/2022/10/canadian-coast-guards-inshore-rescue-boat-station-in-rankin-inlet-nunavut-finishes-operational-season.html>.

26 There is seasonal coverage to those waters within a 40-nautical-mile radius of Churchill, Iqaluit, Resolute Bay (Quasuittuk), Cambridge Bay, and Parson's Lake, including those bays, coves, and inlets that have unobstructed signal paths from VHF radio facilities.

27 HF coverage is provided within an 800-nautical-mile radius of Iqaluit, Killinek, Coral Harbour, Resolute Bay (Quasuittuk), Churchill, Cambridge Bay, and Inuvik, and to the Mackenzie River from Hay River and Inuvik. Canadian Coast Guard, "Levels of Service Marine Communications and Traffic Services," <https://www.ccg-gcc.gc.ca/publications/corporation-information-organisation/niveaux-de-service/page08-28g.html>.

28 Nunavik Police Service Presentation, Nunavik Roundtable on Search and Rescue, 12 December 2022.

29 Kativik Regional Government, Annual Report, 2004, 2005, and 2006.

30 KRG Civil Security Section, *The Nunavik Search and Rescue Crafts Administrative/Operational Guidelines*, 2013 Edition.

31 Nunavik SAR Roundtable, 11-13 December 2022.

32 Information for this section was taken from the annual reports of the Kativik Regional Government, 2005-2019 (available at <https://www.krg.ca/en-CA/publications/annual-reports>) and from presentations at the Nunavik SAR Roundtable, 11-13 December 2022.

- 33 Information for this section was taken from the annual reports of the Inuit Hunting, Fishing and Trapping Support Program, 2000-2018 (available at <https://www.krg.ca/en-CA/publications/annual-reports>) and from presentations at the Nunavik SAR Roundtable.
- 34 Nunavik Roundtable on Search and Rescue, 11-13 December 2022.
- 35 Brad MacKay, "Thrills and chills: Diving in Nunavik," *Globe and Mail*, 9 October 2009, <https://www.theglobeandmail.com/life/travel/thrills-and-chills-diving-in-nunavik/article4260959/>.
- 36 Nunavik Arctic Survival Training Center, "About," NASTC, http://www.nastc.ca/training/ground_search.php.
- 37 Jane George, "Local searches continue for missing Salluit hunters," *Nunatsiaq News*, 20 June 2011, https://nunatsiaq.com/stories/article/18667_local_searches_continue_for_missing_salluit_hunters/; Jane George, "Search continues for three missing Salluit hunters," *Nunatsiaq News*, 14 June 2011, https://nunatsiaq.com/stories/article/13775_search_intensifies_for_three_missing_salluit_hunters/.
- 38 Jane George, "Nunavik's Canadian Rangers get insurance from KRG," *Nunatsiaq News*, 10 December 1999, https://nunatsiaq.com/stories/article/nunaviks_canadian_rangers_get_insurance_from_krg/.
- 39 Gregory Lick (Director General, Operations, Canadian Coast Guard), Testimony to the Standing Senate Committee on Fisheries and Oceans, Senate of Canada, 1st Session, 42nd Parliament, 26 April 2018, <https://sencanada.ca/en/Content/SEN/Committee/421/pofo/29cv-e>.
- 40 Interview with Nunavik Community Responders, December 2023.
- 41 Report of the Standing Committee on Fisheries and Oceans, *When Every Minute Counts: Maritime Search and Rescue* (Ottawa: Senate of Canada, November 2018), <https://sencanada.ca/en/info-page/parl-42-1/pofo-sar-maritime/>; Liane Benoit (Benoit and Associates), Testimony to the Standing Senate Committee on Fisheries and Oceans, Senate of Canada, 42nd Parliament, 1st Session, 19 April 2018, <https://sencanada.ca/en/Content/Sen/Committee/421/POFO/28ev-53958-e>.
- 42 Canadian Coast Guard, Draft Report: Canadian Coast Guard Arctic Search and Rescue Project, n.d., Access to Information and Privacy (ATIP) Request A-2019-00023-DQ-Final.
- 43 Kikkert and Lackenbauer, "Search and Rescue, Climate Change, and the Expansion of the Coast Guard Auxiliary in Inuit Nunangat / the Canadian Arctic."
- 44 Canadian Coast Guard, "Indigenous Community Boat Volunteer Program," Government of Canada, n.d., <https://www.ccg-gcc.gc.ca/search-rescue-recherche-sauvetage/indig-boat-bateau-autoch-prog-eng.html>.
- 45 CBC News, "Nunavik chopper crash victims found," *CBC News*, 23 July 2009, <https://www.cbc.ca/news/canada/north/nunavik-chopper-crash-victims-found-1.864806>.
- 46 Martin Scott, "Letters," *Nunatsiaq News*, 24 May 2003.
- 47 Christopher Curtis, "This Is Salluit: Search-and-rescue team faces down death in a harsh climate," *Montreal Gazette*, 12 April 2018, <https://montrealgazette.com/news/quebec/this-is-salluit-search-and-rescue-team-faces-down-death-in-a-harsh-climate>
- 48 Rachel Sanders, "Weather stations are sparse in Labrador. The gaps can be a matter of 'life or death,'" *CBC Radio*, 19 February 2023, <https://www.cbc.ca/radio/whatonearth/weather-data-gaps-life-or-death-1.6751883>.
- 49 Adamie Kalingo, "A first-hand account of how six hunters nearly lost their lives," *Nunatsiaq News*, 24 April 2008, https://nunatsiaq.com/stories/article/A_first-hand_account_of_how_six_hunters_nearly_lost_their_lives/.
- Nunavik Roundtable on SAR, 11-13 December 2022.
- 50 Nunavik Roundtable on SAR, 11-13 December 2022.
- 51 Department of National Defence (DND), Canadian Forces Flight Safety Investigation Report (FSIR) File number 1010-CC130323 (DFS 2-2) Final Report (Ottawa: Directorate of Flight Safety, 2013).
- 52 Sara Frizzell, "Nunavik man goes with traditional ways to initially treat frozen feet," *CBC News*, 11 March 2018, <https://www.cbc.ca/news/canada/north/frozen-feet-frostbite-nunavik-1.4559258>.
- 53 Annatuqvik Association, "Nunavik Inuit Traditional Life-Saving Measures and Emergency Techniques," Salluit, 2004.

- 54 Sarah Rogers, "Traditional Inuit methods could reduce drownings: KRG rep," *Nunatsiaq News*, 15 September 2014, https://nunatsiaq.com/stories/article/65674traditional_inuit_methods_could_prevent_more_drowning_victims_krg_rep/.
- 55 Annatuqvik Association, "Nunavik Inuit Traditional Life-Saving Measures and Emergency Techniques."
- 56 George, "Local searches continue for missing Salluit hunters"; George, "Search continues for three missing Salluit hunters."
- 57 This sentiment was expressed by multiple responders at the Nunavik Roundtable on SAR.
- 58 SOLARA.
- 59 Sima Sahar Zerehi, "Search continues for missing Nunavik hunter who made raft from plastic containers," *CBC News*, 26 September 2016, <https://www.cbc.ca/news/canada/north/missing-inukjuak-hunter-make-shift-raft-1.3779232>.
- 60 Presentation to the Standing Committee on Aboriginal Affairs and Northern Development, 19 November 1998.
- 61 Nunavik Roundtable on Search and Rescue, 11-13 December 2022.

APPENDIX A: NUNAVIK ROUNDTABLE ON SEARCH AND RESCUE



Nunavik Roundtable on Search and Rescue

Courtyard Marriott Montreal Airport

Montreal, Quebec

11-13 December 2022

The Nunavik Roundtable on Search and Rescue (SAR) will bring together community leadership and first responders, regional, provincial, and federal officials, and representatives from Inuit organizations, to strengthen relationships and discuss SAR preparedness, prevention, and response.

Together, roundtable participants will assess current SAR policies and plans, discuss revisions or further policy development, and assess all aspects of the SAR system. To do so, we will explore SAR:

- strengths and challenges
- best practices and lessons learned
- future requirements for SAR
- solutions and new approaches
- infrastructure needs

The roundtables will involve a mixture of all-participant discussions and small breakout groups to facilitate brainstorming and the sharing of perspectives. To encourage free flowing and candid conversations the roundtables will follow the Chatham House Rule – participants may use information from the proceedings, but the identity of the speakers will not be revealed in any reports or briefings. Participants can, however, request that specific stories or information be attributed to them.

Given that relationship-building is a primary objective of the roundtable, we consider the personal conversations shared over coffee and meals to be as valuable as the broader discussions involving the entire group.

If at any point discussions become exhausting or triggering, participants are encouraged to step away from the roundtable. Roundtable organizers can provide information on mental health and critical incident stress supports available to all participants.

The roundtables are designed to be flexible – if more time is required for a certain session, we will make it happen. Likewise, if participants do not find a session particularly helpful, we can move on to the next.

Agenda

11 December

- 5:00 pm Registration
- 5:30 pm Welcome and Introduction
- 6:00 pm Dinner
- 7:00 pm Session 1: What would you like to discuss?

- Participants will have the opportunity to lay out the main topics, issues, and questions they wish to examine in more detail over the course of the roundtable.

12 December

7:30 am Breakfast (all participants welcome)

8:45 am Introduction of Day 2 Sessions

9:00 am Session 2: Introduction to the SAR System and Discussion Period

Short presentations from federal, territorial, non-profit, and Inuit organizations on their roles and responsibilities in the SAR system.

Participants will be invited to ask any questions and/or raise any concerns they might have about how the SAR system functions.

This session will also provide an opportunity to discuss topics raised in the previous day's brainstorming session.

10:15 am Coffee break

10:30 am Session 2 continues

12:00 Lunch (all participants welcome)

1:15 pm Session 3: Sharing Best Practices and Lessons Learned

In small groups, participants will share how SAR operations work in their community/organization, what they do well, and the challenges that they face. They will be able to exchange ideas, offer possible solutions, and problem solve with one another.

Participants are encouraged to share SAR stories to communicate lessons learned, best practices, challenges, and strengths.

Each group will be assigned facilitators to guide and record the conversation.

2:30 pm Coffee break

2:45 pm Session 3 continues

Each group will present their major discussion points to the roundtable.

4:30 pm Wrap-Up

13 December

7:30 am Breakfast (all participants welcome)

8:45 am Introduction of Day 3 Sessions

9:00 am Session 4: Strengthening the SAR System

- In small groups, participants will discuss:
 - ⦿ what they require to successfully conduct SAR operations
 - ⦿ what they think will strengthen the system
 - ⦿ new approaches and solutions to challenges and gaps
 - ⦿ infrastructure needs
 - ⦿ future requirements
- Each group will be assigned facilitators to guide and record the conversation.

10:15 am Coffee break

10:30 am Session 4 continues

- Each group will present their major discussion points to the roundtable.

12:00 Lunch (all participants welcome)

1:15 pm Session 5: SAR Tabletop Exercise

Guided by a Coast Guard facilitator, participants will engage in a search and rescue tabletop exercise.

2:30 pm Coffee break

2:45 pm SAR tabletop exercise continues

4:30 Roundtable Wrap-Up and Next Steps

Nunavik Search and Rescue Roundtable Participants

Community Representatives

Mayor Eli Angiyou	Akulivik
Simon Aliqu	Akulivik
Salamonie Cruikshank	Akuluvik
Mayor Pauloosie Kasudluak	Inukjuaq
Lasarusie Tukai	Inukjuaq
Samwillie Kutchaka	Inukjuaq
Charlie Kumarluk	Umiujaq
Mayor Adamie Kalingo	Ivujivik
Mosusie Audlaluk	Ivujivik
Mayor Anthony Ittoshat	Kuujjuarapik
Charlie Angatookalook	Kuujjuarapik
John Ittoshat	Kuujjuarapik
Mayor Paulussie Angiyou	Puvirnituaq
Jackusi Tulugak	Puvirnituaq
Mario Aubin	Puvirnituaq
Mayor Maggie Saviakjuk	Salluit
Daniel Kaitak	Salluit
Charlie Pinguatuaq	Salluit
Mayor David Angutiguaq	Aupaluk
Eva Grey	Aupaluk
Willie Angutiguaq	Aupaluk
Mayor Billy Cain	Tasiujaq
James May	Tasiujaq
Conlucy Kutchaka	Tasiujaq
Mayor Qiallak Nappaaluk	Kangiqsujuaq
Elijah Ningnuruvik	Kangiqsujuaq
Quppia Jaaka	Kangiqsujuaq
Elijah Angnatuk	Quaqtaq
Johnny Oovaut	Quaqtaq
Stevie Page	Quaqtaq
Tuniq Angutinguaq	Kangirsuk
Allen Gordon	Kuujjuaq
Georges Kaukai	Kuujjuaq
Peter Duncan	Kuujjuaq
Mayor McCombie Annanack	Kangiqsualujuaq
Sammy Angnatwenuk	Kangiqsualujuaq
Tony Annanack	Kangiqsualujuaq

Regional, Provincial, Federal, Inuit, and Non-Profit Agencies

Craig Lingard	Director - Kativik Civil Security
Kris Tukkiapik	Kativik Civil Security
Steven Walker	Kativik Civil Security
Sonia Gosselin	Kativik Civil Security
Jordon Jones	Kativik Civil Security
Liam Callaghan	Kativik Civil Security
Martin Chaperlin	Kativik Civil Security
France-Sylvie Loiselle	Kativik Civil Security
Liane Benoit	Kativik Civil Security
Hilda Snowball	Chairperson - Kativik Regional Government
Lucy Kumarluk	Vice Chairperson - Kativik Regional Government
Paul Parsons	Interim Director - Kativik Regional Government
Markusi Qisiiq	Kativik Regional Government
Betsy Berthe-Gordon	Kativik Regional Government
Steven Kleist	Kativik Regional Government
Adamie Delisle-Alaku	Vice President - Makivik Corporation
Chief Jean-Pierre Larose	Nunavik Police Service
Jean Francois Morin	Nunavik Police Service
Benoit Plante	Nunavik Police Service
Insp. Serge Thiffault	Sûreté du Québec
Insp. Éric Laurendeau	Sûreté du Québec
Jean Francois Fortier	Sûreté du Québec
Jean-Francois Lavoie	Ministère de la Sécurité publique du Québec
Alain Guimond	Public Safety Canada - Emergency Management Branch
Steve Nason	Public Safety Canada - National SAR Secretariat
Michael Cameron	Canadian Coast Guard Auxiliary
Hubert Desgagnes	Canadian Coast Guard Auxiliary
Remi Girard	SERABEC - Provincial Training Officer and Operations
Maj Claude Courcelles	National CASARA Liaison Officer - 1 CAD
Steve Thompson	Canadian Coast Guard Arctic Region
Erin Pigott	Canadian Coast Guard Arctic Region
Stuart Thibert	Canadian Coast Guard Arctic Region
Jessica Cucinelli	Canadian Coast Guard Arctic Region
Jeffrey Gordon	Canadian Coast Guard Arctic Region
Hillary Beauvais	Canadian Coast Guard Arctic Region
Gaston Doucette	Canadian Coast Guard
Wendell Sperry	JRCC Halifax
MWO Norm Penny	JRCC Halifax
Major Marc Crivicich	JRCC Trenton
Captain Phil Roy	JRCC Trenton
2Lt Greg Hoornweg	JRCC Trenton
Sergeant Simon Bourassa	JRCC Trenton
Sergeant Rob Featherstone	JRCC Trenton
Lt. Colonel Nicolas Hilareguy	2 Canadian Ranger Patrol Group
CWO Mathieu Giard	2 Canadian Ranger Patrol Group
Warrant Officer Antoine Duff	2 Canadian Ranger Patrol Group
Warrant Officer Étienne Ouellet	2 Canadian Ranger Patrol Group
Joëlle Morazain	Transport Canada - Office of Boating Safety
Roch Anctil	Transport Canada - Office of Boating Safety

North American and Arctic Defence and Security Network (NAADSN)

P. Whitney Lackenbauer

Peter Kikkert

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St. Francis Xavier University

St. Francis Xavier University

APPENDIX C: INUIT INJURY PREVENTION PRACTICES

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Project started by: Kakkinig Naluiyuk, Mark Papigatuk Snr,
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Kativik Regional Government
Hunter Support Program of Kangiqsualujuaq
Saputiit Youth Association of Nunavik
Qaqalik Landholding Corporation of Salluit
Kativik Local Development Center (KLDC)
Nunavik Regional Board of Health and Social Services
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②

FOREWORD

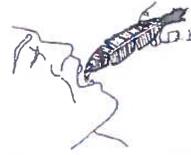
- a) Every year, we hear that some people in Nunavik are lost, suffer exposure, lose a limb or drown, out of reach of the communities. It is necessary for all, especially young people, to know about the traditional Inuit methods of treatment for hypothermia, frozen limbs, and drowning victims.
- b) The following are instructions provided by Nunavik elders who are experts in life-saving procedures. This knowledge has been part of Inuit traditions during the times of our forefathers and has been used until the 1950s. It can be used today to save lives and heal injuries after accidents, with the victim returning to complete health. These measures will not expose an accident victim to any more risk beyond what has already happened, if applied precisely. Note that the following instructions are valid for arctic regions and should not be used in warmer areas. The present booklet is not intended to replace CPR (cardio-pulmonary resuscitation) techniques, but in an emergency situation, to provide an alternative.
- c) In a major accident, the victim might appear to have reached the end of his/her life, or may seem beyond healing. With the following techniques, there is some chance to save or heal them. However, and even in the times of our forefathers, efforts to save lives are not always successful. Even modern science is not always successful. People who have attempted to intervene without success should not feel burdened by guilt if the life is not saved, since the accident was not in their control and they have done their best effort to save the victim.

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NUNAVIK INUIT TRADITIONAL LIFE-SAVING MEASURES AND EMERGENCY TECHNIQUES

Annatuqvik Association
Salluit
2004



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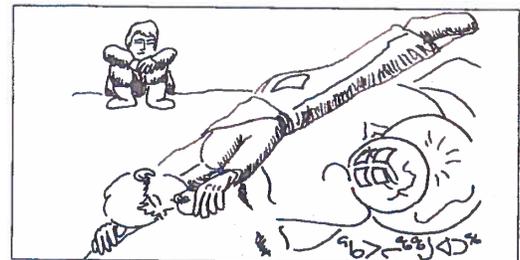
1. TREATMENT OF DROWNING VICTIMS

- 1.1) An attempt should always be made to revive a drowned person, even if they have been in the water for a long time.

Always act calmly, never in panic. Only one person should supervise the treatment, preferably not a relative.

Do the following:

- a) Get the victim ashore and shelter him/her from the wind. (In winter, a warm shelter should be provided.)
- b) Position them as shown, on a slant, with the head downhill. The legs should be higher than the head, and both the abdomen and the chest should rest on the ground. Make sure the head does not hang freely. The right cheek should rest on the ground, or on a make-shift cushion. Bedrock



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THE STATE OF SEARCH AND RESCUE IN NUNAVIK

Report Prepared by
Peter Kikkert and P. Whitney Lackenbauer

This report examines the state of search and rescue in Nunavik. It describes how the system works and provides an assessment of its strengths and challenges. It also shares suggestions for improvement offered by community and government practitioners and makes recommendations for how to begin working through identified challenges.

