Nunavik Search and Rescue Roundtable Roundtable 2022: Summary Report



Montreal, Quebec, 11-13 December 2022

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Background: The Nunavik Search and Rescue Roundtable

The Nunavik SAR Roundtable – a partnership between community responders, government practitioners, and researchers – was created in response to repeated calls from Nunavimmiut for review and discussion of the region's SAR system. Community responders also requested a platform through which they could discuss issues with their search and rescue partners and strengthen the relationships required to conduct effective SAR operations in the region.



Co-organized by Kativik Civil Security and academics Peter Kikkert and P. Whitney Lackenbauer, the first Nunavik SAR Roundtable was held at the Courtyard Marriott Montreal Airport in Montreal, Quebec, from 11-13 December 2022. The roundtable brought together community leadership and SAR responders, representatives from Inuit organizations, and regional, provincial, and federal officials to strengthen relationships and discuss search and rescue preparedness, prevention, and response.

The roundtable was never envisioned as a one-and-done event, however. Instead, it is an ongoing initiative that provides the time and space to discuss and improve the search and rescue system, offers training opportunities, helps to organize other SAR activities, and strengthen relationships.

The 2022 Nunavik SAR Roundtable: Setting the Scene

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 I).

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¹ Primary 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). The roundtable was also supported through the Nunavut-Nunavik SAR Project, which involves academics from St. Francis Xavier University, the University of Strathclyde, Dalhousie University, Trent University, and the Marine Institute at Memorial University. The project is funded by the National Research Council of Canada and the United Kingdom Research and Innovation through the Canada-Inuit Nunangat-United Kingdom Research Program.

The origins of the roundtable rested in repeated calls from Nunavimmiut for a review and discussion 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 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 allparticipant 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.

This report first offers an analysis of the major lessons observed, best practices, core strengths, areas for improvement, and ideas for strengthening the system shared by roundtable participants (through formal roundtable discussions, informal conversations, and one-on-one interviews conducted during the meetings). It then provides a comparative chart summarizing the topics raised during each of the roundtable sessions described above.



SAR in Nunavik: The Context

Government Actors

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 is responsible for the effective operation of the federal coordinated maritime and aeronautical SAR system, while the Coast Guard is responsible for the maritime SAR program, which includes incidents involving a vessel or person(s) on federal waterways, including the waters of Hudson Bay and James Bay.²

Humanitarian SAR (ground SAR - GSAR) 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. 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.

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

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² 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.

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. 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. At every level, search coordination and response are largely left up to community responders.

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.

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.

The Kativik Regional Government and, in particular, its Civil Security Department often provide communities with technical assistance, training opportunities, and funding for equipment and other critical resources, while also leading SAR prevention initiatives. 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 Corporation. 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.³

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³ Kativik Regional Government, Annual Report, 2004, 2005, and 2006.

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 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 Kuujjuaq. 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 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.⁴

Community Responders

Nunavimmiut engage in search and rescue activities through the Civil Air Search and Rescue Association (CASARA), the Canadian Coast Guard Auxiliary (CCGA), the Canadian Ranger Patrols, community fast rescue boat units and GSAR teams.

⁴ 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.

In support of its SAR mandate, the CAF provides funding for the training, insurance, administration, and operations of the volunteers who make up CASARA. 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 Kuujjuaq 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.

In Nunavik, marine SAR services are provided by the fast recue boat units supported by Kativik Civil Security. Over the past few years, as part of the Coast Guard Auxiliary's expansion in the Coast Guard's Arctic Region, several fast rescue craft and their crews have transitioned into Auxiliary units. Plans are in place to transition all units to the Coast Guard Auxiliary in the coming years. CCGA members receive specialized training, insurance coverage, and reimbursement for certain operational costs, but they also fundraise to purchase additional equipment. 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 Kangiqsujuaq 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.

Ground search and rescue is often less formalized in many communities. Few responders have received GSAR training (outside those who also serve as Canadian Rangers). The NPS generally defers operational responsibility to the mayor of a municipality or, in some cases, their delegate, who then have 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. Duty officers at 2 Canadian Ranger Patrol Group 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." During these taskings, 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. Since 2009, the Rangers of 2CRPG have been mobilized more than 170 times, averaging 14 ground search and rescue operations annually. 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.

Private Sector Support

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 Puvirnituq, and the Puvirnituq 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. On a voluntary basis, their members also provide support to search and rescue operations in Puvirnituq. At the Nunavik Roundtable on SAR, the centre said it was looking to take a more substantive role in SAR across the region.

Nunavik SAR System: Strengths

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

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

⁵ 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/.

⁶ Nunavik Arctic Survival Training Center, "About," NASTC, http://www.nastc.ca/training/ground-search.php.

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
- 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 Roundtable on SAR.

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.

Close Inter-Community Collaboration: Across the region, communities often share volunteers, equipment, and resources, particularly during prolonged searches. 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.

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 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. 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.

Craig Lingard, the head of Kativik Civil Security explained to the roundtable that 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.

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.

"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.

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. 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. 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.

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.

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.

At the roundtable, the Coast Guard and Kativik Civil Security laid out their progress in transitioning the region's fast rescue boats into Coast Guard Auxiliary units. 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. 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 realties (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.

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.

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.

With greater Coast Guard attention on expanding the Auxiliary in Nunavik, there is also the possibility that more communities will benefit from the Oceans Protection Plan's 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.

Some roundtable participants pointed out that, 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.

- "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.
- "We are going to invest considerable time, effort, and money into Nunavik's communities." Coast Guard representative, Nunavik Roundtable on SAR.

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. 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 roundtable, "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.

Improvements to the Working Relationships Between SAR Partners: Several of the community responders 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

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.

- o "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.

Nunavik SAR System: Challenges

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. Roundtable participants 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.

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.⁷ 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."

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. 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

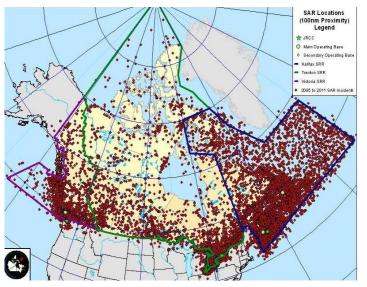
⁷ Christopher Curtis, "This Is Salluit: Search-and-rescue team faces down death in a harsh climate," *Montreal Gazette*, 12 April 2018, https://montrealgazette.com/news/quebec/this-is-salluit-search-and-rescue-team-faces-down-death-in-a-harsh-climate.

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 roundtable, "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.

Finally, 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.

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. 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

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⁸ Nunavik Roundtable on SAR, 11-13 December 2022.

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.



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.

- "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.
- o "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.

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. 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.

The Impact of Austere Environmental Conditions on SAR Operations: 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. 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.

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 Kuujjuaq by medevac, where he spent two weeks recovering. Augiak's feet were not amputated. 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.

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. 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. 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 want Western medicine to believe us more." Community responder, Nunavik Roundtable on SAR.
- o "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.
- "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.

Issues with 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. 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. Community responders also noted that many Nunavimmiut are hesitant or unwilling to report cases to the NPS, often due to a fear of getting the lost party in trouble or because of poor relations with the police.

- "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.

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. Roundtable participants highlighted the need to discuss the basing, prepositioning, and/or contracting of primary aerial SAR units in Nunavik or in nearby places in the North.

- "They are hours and hours away. It's hard to rely on them." Community responder, Nunavik Roundtable on SAR.
- o "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.

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," "there are 14 different search and rescue systems in Nunavik," and "each community does it differently" were common remarks at the roundtable. 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.

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.

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*.

- o "The role of the mayor in a given situation is over-played, 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.

Limited Local Air Support: Roundtable 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.

• "We need helicopters for the Hudson Bay communities." – Community responder, Nunavik Roundtable on SAR.

o "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.

Limited Understanding of the SAR System: Roundtable participants 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.

- o "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.

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. 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

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⁹ This sentiment was expressed by multiple responders at the Nunavik Roundtable on SAR.

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.

The Land-Ice Interface: Roundtable participants 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.

Coordination, Cooperation, and Communication Difficulties: SAR operations in Nunavik can be extremely complex, involving multiple organizations and search platforms. Given the range of partners that could be involved and the lack of standard operating procedures, SAR operations can involve lot of moving parts that need to be effectively organized and coordinated. 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.

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. Puvirnituq, 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 roundtable 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." ¹⁰

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¹⁰ SOLARA.

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.

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.
- o "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.

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.

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.

o "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.
- o "Hardest thing in SAR is to say no." Community responder, Nunavik Roundtable on SAR.

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.

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.

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 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.

• "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.

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.

• "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.

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.

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.

The Lack of Consistent Funding: Nunavimmiut participants at the roundtable 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. 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.

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.

- "We as a police force have no budget allocated for search and rescues as well." Member of the NPS, Nunavik Roundtable on SAR.
- o "[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.

		Kuujjuaraapik	Umiujaq	Inukjuak	Puvirnituq	Akulivik	Ivujivik	Salluit	Kangiqsujuaq	Quaqtaq	Kangirsuk	Aupaluk	Tasiujaq	Kuujjuaq	Kangiqsualujjuaq	Year
	635,734	8,450	15,360	180,939	193,326	19,314	2,850	20,822	12,126	9,554	13,008	3,225	21,972	66,602	68,186	2021
	605,884		6,150	105	209,425	107,280	22,360	42,683	2,722	24,274	39,714	9,600	17,099	96,830	27,642	2020
	481,421	8,800	13,151	132,056	41,517	104,845	49,775	19,697	12,472	24,588	9,535	4,850	-	35,195	24,940	2019
	444,483	2,350	7,188	48,944	132,927	37,719	52,509	25,540	5,520	6,966	46,931	2,799	32,257	26,639	16,194	2018
	417,472	15,628	10,869	90,250	23,424	27,978	15,014	58,017	21,966	7,737	14,569	17,260	25,461	47,820	41,479	2017
2,584,9																
	540,310	20,464	45,115	194,157	10,436	62,929	15,270	32,673	22,284	6,418	11,279	5,553	13,213	68,735	31,784	2016
	307,983	9,329	12,162	74,161	1,195	38,548	24,531	13,354	9,378	6,025	7,786	5,601	7,616	85,460	12,837	2015
	470,188	14,833	-	323,839	2,781	22,527	22,503	4,258	6,978	1,077	9,021	3,272	8,816	33,615	16,668	2014
	281,074	24,373	16,808	72,635	5,902	77,470	12,092	8,783	13,652	2,984	7,776	5,548	5,035	28,016	-	2013
	208,825	5,432	9,960	70,198	3,692	20,276	14,062	12,976	14,115	2,912	8,050	6,201	5,542	2,814	32,595	2012
1,808,3																
	502,134	-	42,777	110,331	32,230	124,089	34,075	50,943	21,731	4,179	14,340	13,734	4,537	33,150	16,018	2011
	480,071	51,958	27,807	90,210	92,732	15,999	59,764	10,025	22,816	9,021	24,043	8,698	4,680	34,106	28,212	2010
	473,137	7,767	7,623	83,730	220,567	23,105	12,276	40,729	9,036	4,726	27,703	5,459	2,812	9,524	18,080	2009
	206,943	15,553	-	49,804	23,028	-	8,942	-	6,395	27,144	42,524	6,893	-	18,387	8,273	2008
	161,401	750	6,955	71,153	10,333	-	6,225	7,080	15,052	-	6,328	8,218	-	22,075	7,232	2007
1,823,6																
	256,945	385	31,029	52,322	18,902	13,540	5,671	66,225	11,195	9,044	5,218	5,150	-	32,858	5,406	2006
	349,069	5,353	6,946	13,871	57,622	27,760	12,287	142,259	12,335	21,896	19,258	2,688	-	8,712	18,082	2005
	441,805	4,476	-	19,827	327,215	66,723	4,957	- 1	6,020	-	3,619	3,055	-	3,579	2,334	2004
	211,350	5,663	-	45,702	36,904	1,635	-	18,518	2,362	17,021	36,179	38,281	-	7,976	1,109	2003
	135,977	1,513	10,143	66,282	31,018	1,739	2,940	882	1,943	1,504	1,372	-	-	16,641	-	2002
1,395,1	0															
7,612,20	,. ,	203,077	270,043	1,790,516	1,475,176	793,476	378,103	575,464	230,098	187,070	348,253	156,085	149,040	678,734	377,071	OTAL
	0															

The Need to Consistently Strengthen Relationships: Nunavimmiut have often felt excluded from the SAR system. Effective cooperation, coordination, and communication will only flow out of strong relationships and equal partnerships. While the situation has improved in recent years, 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. 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." 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).

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 community responders. Some participants at the roundtable 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.

Critical Incident Stress and 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.

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

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." Community responder, Nunavik Roundtable on SAR.
- "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." Community responder, Nunavik Roundtable on SAR.
- o "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." Community responder, Nunavik Roundtable on SAR.

- o "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." Community responder, Nunavik Roundtable on SAR.
- "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." Community responder, Nunavik Roundtable on SAR.
- "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." Community responder, Nunavik Roundtable on SAR.
- "Psychologists from the South aren't going to understand the experiences that our first responders have to go through." – Community responder, Nunavik Roundtable on SAR.
- "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." – Community responder, Nunavik Roundtable on SAR.

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. 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.

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.

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.

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).
- 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."
- o "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.
- o "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.

Strengthening the SAR system in Nunavik will 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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All photos, unless indicated in a caption, were shared at the Nunavut Roundtables on Search and Rescue.

Appendix I: Agenda and Participant List

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.

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:
 - o what they require to successfully conduct SAR operations
 - o what they think will strengthen the system
 - o new approaches and solutions to challenges and gaps
 - o infrastructure needs
 - o 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 **Ivujivik** Mayor Adamie Kalingo Mosusie Audlaluk **Ivujivik** Mayor Anthony Ittoshat Kuujjuarapik Charlie Angatookalook Kuujjuarapik John Ittoshat Kuujjuarapik Puvirnituq Mayor Paulussie Angiyou Jackusi Tulugak Puvirnituq Mario Aubin Puvirnituq Mayor Maggie Saviakjuk Salluit Daniel Kaitak Salluit Charlie Pinguatuq Salluit Mayor David Angutiguak Aupaluk Eva Grey Aupaluk Willie Angutiguak 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

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

Sammy Angnatwenuk

Tony Annanack

Craig Lingard Director - Kativik Civil Security

Kangiqsualujuaq

Kangiqsualujuaq

Kris Tukkiapik
Steven Walker
Sonia Gosselin
Jordon Jones
Liam Callaghan
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

Erin Pigott

Canadian Coast Guard Arctic Region

Stuart Thibert

Canadian Coast Guard Arctic Region

Canadian Coast Guard Arctic Region

Jessica Cucinelli

Canadian Coast Guard Arctic Region

Canadian Coast Guard Arctic Region

Canadian Coast Guard Arctic Region

Hillary Beauvais

Canadian Coast Guard Arctic Region

Gaston Doucette Canadian Coast Guard

Wendell Sperry

MWO Norm Penny

JRCC Halifax

Major Marc Crivicich

Captain Phil Roy

JRCC Trenton

2Lt Greg Hoornweg

Sergeant Simon Bourassa

JRCC Trenton

JRCC Trenton

JRCC Trenton

JRCC Trenton

JRCC Trenton

Lt. Colonel Nicolas Hilareguy
 CWO Mathieu Giard
 Warrant Officer Antoine Duff
 Warrant Officer Étienne Ouellet
 Canadian Ranger Patrol Group
 Canadian Ranger Patrol Group
 Canadian Ranger Patrol Group

Joëlle Morazain Transport Canada - Office of Boating Safety

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Roch Anctil

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