

GNWT Search and Rescue System Review Final Report

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Introduction

MNP LLP was engaged by the Government of Northwest Territories (GNWT) Department of Justice to conduct a review of search and rescue (SAR) in the Northwest Territories with the following objectives:

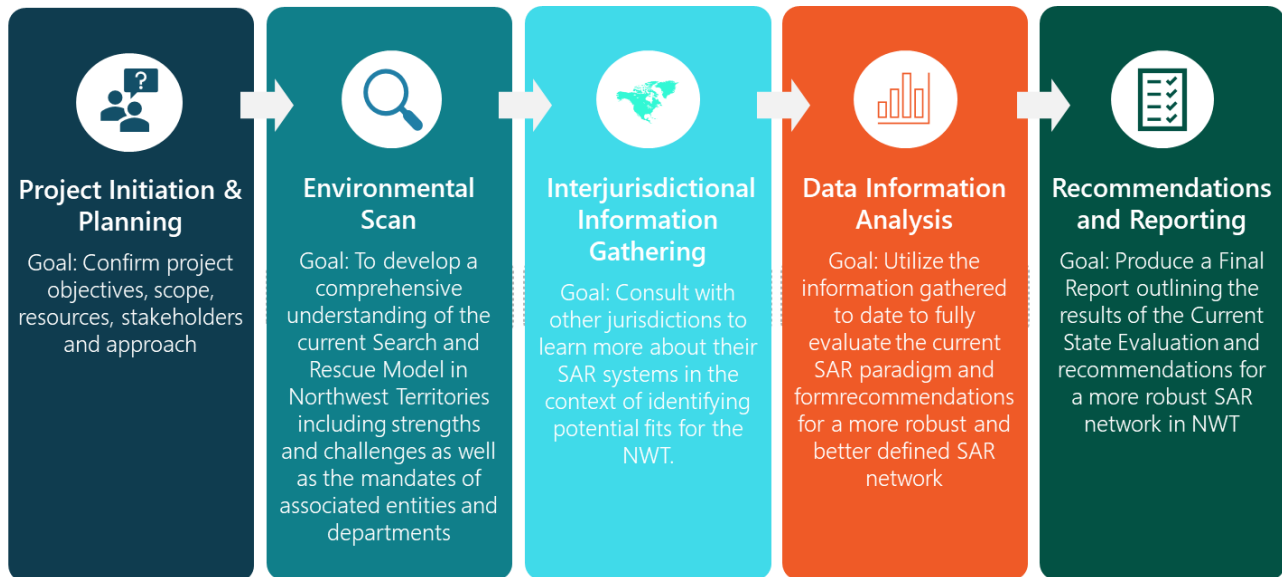
- Recommend primacy of Departmental responsibility to equip, manage, and train SAR teams in the NWT; and
- Identify a recommended path forward to maximize coordination, compatibility, and interoperability for the purpose of ensuring adequate safety for industry, residents, and visitors.

The review was overseen by a four-member steering committee comprised of two representatives from the GNWT Department of Justice, and representatives from the GNWT Department of Municipal and Community Affairs (MACA), and the RCMP.

The sections that follow outline the current state of SAR in the NWT, findings in connection to the current state including existing gaps in the system, findings from a scan of jurisdictional SAR models in other jurisdictions and recommendations to address the above review objectives and contribute to the improved delivery of SAR services in the NWT.

Methodology and Approach

The following methodology and approach were developed to complete the search and rescue system review. The five-phased methodology included the following phases:



The sections below describe our work in these phases in more detail.

Project Initiation and Planning

At the start of the project, we met with the steering committee to confirm the project objectives, scope, timelines, and stakeholders for consultation. We established bi-weekly meetings with the steering committee to keep them informed of our progress and address any questions or issues that arose in our work. We also provided bi-weekly progress reports outlining our activities for the past period, planned activities for the upcoming period, and any project risks or issues of concern.

Environmental Scan

The project steering committee provided a list of stakeholders in the NWT SAR system who we contacted to arrange interviews. Interviews were conducted virtually by Microsoft Teams or over the phone. We utilized a consistent question guide for all interviews and have included the questions in Appendix A. The stakeholders we interviewed represented a range of organizations which are included in the table below.

Table 1: Organizations Represented in SAR Review Stakeholder Consultations

Stakeholders Consulted	
GNWT Department of Municipal and Community Affairs	Canadian Coast Guard Auxiliary
GNWT Community Justice and Policing Division	Parks Canada
GNWT Department of Infrastructure	Public Safety Canada
GNWT Department Industry, Tourism and Investment	The Civil Air Search and Rescue Association (CASARA)
Northwest Territories Health and Social Services Authority (NTHSSA)	Yellowknife Search and Rescue
RCMP	Tuktoyaktuk Hunters and Trappers
Canadian Armed Forces	Inuvialuit Regional Corporation
Canadian Coast Guard	Dehcho First Nations
SARVAC	

In addition to the above organizations we interviewed, there were additional stakeholders who we contacted to arrange an interview and who either declined an interview or did not respond to our request. For those who directly declined an interview, most cited a lack of knowledge or involvement in the current SAR system as their reason for not participating. The table below outlines the organizations we reached out to as part of our consultations but who did not agree to an interview for this project.

Table 2: Stakeholders Contacted but Not Interviewed

Stakeholders Contacted	
GNWT, Aboriginal Consultation and Aboriginal Relations	Déłıne Got'ıne Government
GNWT, Environment and Natural Resources	Northwest Territory Métis Nation
Northwest Territories Association of Communities	Salt River First Nation
Sahtu Secretariat Incorporated	Kátł'odeeche First Nation
Acho Dene Koe First Nation	Deninu Ku'e First Nation – Fort Resolution
Gwich'in Tribal Council	Lutsel K'e Dene First Nation
Tłıchq̓ Government	Yellowknives Dene First Nation
Akaiicho Territory Government	

At the start of the project, we submitted requests for relevant data including SAR incident and response statistics and SAR-related expenditures from the RCMP, GNWT, and Canadian Forces. The RCMP data included incident numbers and location with some breakdown of associated costs where invoices to outside providers (e.g., aircraft charter) were involved. We did not get a sense for the personnel costs that are connected to SAR incidents however, as the costs are officer time spent on SAR incidents is not tracked separately. The GNWT and EMO were unable to provide us with a list of community searches including their frequency and the associated expenses. The Canadian Forces data was also lacking as it was not specific to the NWT and includes a wider geographic region for SAR response numbers. The Canadian Forces was also unable to provide any statistics on the involvement of the Canadian Rangers in the NWT.

The table below provides a summary of the information we collected and reviewed as part of this project.

Table 3: Data Collected and Reviewed

Sources Reviewed	
MACA Contributions for Community Organized Search Policy	Canadian Forces SAR Response Data
NWT Emergency Plan	Canadian Aeronautical and Maritime Search and Rescue Manual (CAMSAR)
Cities, Towns, and Villages Act	Modernizing Canada's Search and Rescue Governance and Policy Framework: Discussion Paper by Public Safety Canada
Hamlets Act	SARVAC Insurance Policy Details
Charter Communities Act	YKSAR Searcher Handbook
Tliche Community Government Act	YKSAR Statistics: 2018-21
Emergency Management Act	Northern SAR Roundtable TOR
911 Protocols	Report from Kitikmeot Roundtable on Search and Rescue
RCMP Policy Manual: Ch. 16.7, 37.1, 37.2, 37.3, 37.10, 37.11	Med-Response Backgrounder
RCMP 'G' Division SAR Expenditures: 2017-21	Quadrennial SAR Review: Government of Canada, 2013
Territorial Police Service Agreement: 2012-32	CASARA Statistics

Interjurisdictional Information Gathering

As part of a jurisdictional scan, we interviewed representatives from the organizations listed in the table below. The jurisdictions investigated include a range of SAR service delivery models and provide examples of approaches taken in both northern and southern contexts. We used a similar set of questions to the internal stakeholders as shown in Appendix A, with additional questions relating to the specific service model differences between the NWT and other jurisdictions. The organizations interviewed include:

- Yukon RCMP
- Nunavut RCMP
- Nunavut EMO
- Manitoba RCMP
- Winnipeg Police

As part of our comparison between jurisdictions, we reviewed the following documentation in the table below.

- Newfoundland and Labrador: Public Enquiry Respecting Ground Search and Rescue for Lost and Missing Persons
- Nunavut Community Based SAR Contributions Policy
- Nunavut Emergency Measures Act
- Yukon Civil Emergency Measures Act
- Yukon SAR MOU
- The Fires Prevention and Emergency Response Act of Manitoba

Data Information and Analysis

During the analysis stage, we evaluated the current SAR mandates and service delivery levels of NWT SAR organizations to determine whether there are gaps in mandate or service delivery. This analysis led us to establish a thorough understanding of the current state and resulted in our findings as an output of the gaps identified.

Recommendations and Reporting

Based on our analysis and findings, we drafted a series of recommendations for review by the working committee. We held a working session with the working committee to validate our findings and recommendations and identify any blind spots or areas where additional details were required. The feedback received from the working group was then evaluated and incorporated into the draft report where appropriate.

Current State

The delivery of Search and Rescue (SAR) services in the Northwest Territories relies on a layered approach with the involvement of numerous government agencies and volunteer organizations. The sections below lay out the demand for SAR, current SAR mandates, current SAR responsibilities, and the current roles of the governments, agencies, and organizations involved in SAR. The overall goal of this section is to provide a common understanding of the SAR system in NWT. The following section details findings related to how the system functions and where the strengths, challenges and gaps exist within they system.

Search and Rescue Mandate by Incident Type and Location

Search and Rescue is a multi-jurisdictional responsibility with varying mandates and primary responsibility based on the incident type and location. Public Safety Canada has outlined the mandate for SAR response and command based on whether an incident is maritime, aeronautical, or ground search and rescue. The sections below further define these incident categories and describe the current governments and agencies with primary responsibility for each incident type.

Aeronautical Incident

Aeronautical incidents include any SAR incident involving an aircraft such as a plane crash or emergency landing. Aeronautical incidents are a federal area of responsibility as defined by agreements for aeronautical SAR under the International Civil Aviation Organization (ICAO). The federal government has designated the Royal Canadian Air Force (RCAF) as the primary authority for responding to aeronautical incidents. Aeronautical SAR for the Northwest Territories is coordinated from Joint Rescue Coordination Centre (JRCC) Trenton. Secondary support may be provided by volunteer organizations such as the Civil Air Search and Rescue Association (CASARA), the police force of jurisdiction, the Canadian Coast Guard (CCG), Canadian Coast Guard Auxiliary (CCGA), or any multi-tasked federal resource.

Maritime Incident

Maritime incidents are SAR incidents that take place in federal waters. For the purposes of maritime SAR, federal waters include all oceanic waters, coastal waters (as defined in the Canada Shipping Act, 2001), and secondary waters (as defined in Section 2 of the Customs Act), but not inland waters with the exceptions of the Great Lakes, St. Lawrence River System, and Lake Melville.¹

¹ Canadian Aeronautical and Maritime Search and Rescue Manual. Canadian Coast Guard. (2014, September 30). Retrieved January 3, 2022, from <https://ccga-pacific.org/training/manuals/CAMSAR-2014-english-signed.pdf>

Maritime SAR is a federal area of responsibility as outlined by agreements for maritime SAR under the International Maritime Organization (IMO). The federal government has designated the Canadian Coast Guard as the primary authority for maritime SAR. Maritime SAR for the Northwest Territories is coordinated from the JRCC Trenton. Secondary support may also be provided by the RCAF, CCGA, the police force of jurisdiction, ground volunteers, vessels of opportunity, or any multi-tasked federal resource.

Ground Search and Rescue

Ground Search and Rescue (GSAR) includes search and rescue incidents that take place on land or inland waterways that are not aeronautical incidents. Within national parks and national historical sites, the primary authority for GSAR incidents is Parks Canada. Outside of national parks, GSAR falls under the legal authority of each individual province or territory. At an operational level, many provinces and territories delegate the primary authority for SAR incident response and coordination to the police service of jurisdiction. In the Northwest Territories, the primary authority for SAR incidents is delegated to the RCMP through the responsibility for lost and missing persons as part of the territorial policing contract. The RCMP responsibility for SAR includes the responsibility for SAR incident command and the coordination of the SAR incident response. Secondary support may be provided by the RCAF, CCG, CCGA, Canadian Rangers, and ground or aeronautical volunteers.

National Parks

As outlined by Public Safety Canada, Parks Canada holds the primary mandate for incident command and response to lost or missing persons within national parks and national historic sites. Parks Canada maintains staff who are trained and equipped for search and rescue in proximity to select parks. National parks that are more remote or have less infrastructure may not have ready access to Parks Canada staff to conduct SAR operations. In these cases, Parks Canada may rely on other SAR agencies and resources to assist in the search while maintaining responsibility for the overall operation.

Summary of SAR Mandates by Incident Type

The preceding sections outline the agencies with primary responsibility for each incident type. In addition to the primary SAR authorities, there are numerous agencies and organizations that provide secondary support to SAR operations. The following table, developed by Public Safety Canada, outlines the role of both the primary and secondary agencies across incident types.² Subsequent sections in this report further detail the primary and secondary roles of these and other organizations involved in SAR operations in the NWT.

² Modernizing Canada's Search and Rescue Governance and Policy Framework: Discussion Paper. Public Safety Canada. (October 2016).

Table 4: Primary and Supporting Agencies Responsible for SAR in the Northwest Territories

Incident Type	Primary Authority	Secondary Support
Aeronautical	<ul style="list-style-type: none"> Royal Canadian Air Force 	<ul style="list-style-type: none"> Aeronautical volunteers Any multi-tasked federal resource Police force of jurisdiction Vessels of opportunity Ground volunteers Canadian Coast Guard Canadian Coast Guard Auxiliary
Maritime	<ul style="list-style-type: none"> Canadian Coast Guard 	<ul style="list-style-type: none"> Royal Canadian Air Force Canadian Coast Guard Canadian Coast Guard Auxiliary Any multi-tasked federal resource Police force of jurisdiction Ground volunteers Vessels of opportunity
Ground (including inland waters)	<ul style="list-style-type: none"> Provincial/Territorial responsibility – generally delegated to police service of jurisdiction Parks Canada within national parks and national historic sites 	<ul style="list-style-type: none"> Royal Canadian Air Force Canadian Coast Guard Canadian Coast Guard Auxiliary Ground volunteers Aeronautical volunteers Canadian Rangers Municipal Emergency Management Services Vessels of opportunity

Search and Rescue Mandate and Capacity by Organization

The following sections describe the current mandates, roles, and capacities of the agencies and organizations involved in the response to SAR incidents in the Northwest Territories.

Government of Northwest Territories

The Government of Northwest Territories (GNWT) is the primary authority responsible for all Ground Search and Rescue (GSAR) in the territory except for national parks and national historical sites which are the responsibility of Parks Canada. As the primary authority, the GNWT is responsible for overseeing

all aspects of GSAR including service delivery, training and preparedness, and prevention activities. Below, the current mandates, roles, and capacities of GNWT departments are described as they relate to achieving the overall GNWT mandate for the delivery of GSAR services.

Department of Health and Social Services

The Department of Health and Social Services provides funding for the three health authorities who in turn provide medical services and care for territory residents. While the health authorities are not involved in conducting searches for missing persons, they are involved in the medical extraction of patients who need medical care and are in a known location.

The Northwest Territories Health and Social Services Authority (NTHSSA) currently provides medical extraction services throughout the territory with the Med-Response program. Launched in 2015, the Med-Response program began by offering a single point of contact for coordinating air ambulance dispatch and clinical consultation. In 2016, Med-Response expanded its program to include remote medical extraction services. Med-Response is staffed 24/7 by a registered nurse and a dispatcher, with additional oversight during business hours. The Med-Response program has a contract with ACCESS Air Ambulance, a partnership between Air Tindi Ltd. and Advanced Medical Solutions Inc., for the program's service delivery.

Currently, either the RCMP or a local health centre will contact the Med-Response program to request a remote medical extraction. For Med-Response to complete an extraction, the patient's injury and location must be known and the patient must be "packageable". This means that the medical crew must be able to safely access a patient to provide necessary stabilizations and medical interventions for the patient transfer. This requires the ability for either a helicopter or fixed-wing aircraft to safely land (including favorable weather and suitable landing site conditions) and for the crew to have access to the patient upon landing. In the case of helicopter extractions, the transport must be undertaken during daylight hours as current helicopter pilots are not certified for night flight.

Due to the limited ability of air ambulance staff to travel on their own upon landing, Med-Response crew members often collaborate with other on-the-ground resources such as the RCMP to successfully complete a remote medical extraction. The work of the Med-Response crew is also limited to the medical transport role as crew members are not trained or equipped with rescue or technical capabilities. For example, Med-Response would not currently undertake a rescue requiring the jaws of life or undertake a rescue requiring technical ropework.

Department of Justice

The Department of Justice is responsible for managing the territorial policing contract with the RCMP. Through the policing contract, the Department of Justice delegates the territorial responsibility for leading Ground Search and Rescue operations to the RCMP, including establishing a SAR incident command, and coordinating the response to missing, lost, and overdue persons. The RCMP's responsibility for a SAR incident extends from when a person is reported as missing, lost, or overdue, for as long as the Commanding Officer deems appropriate. After the Commanding Officer has deemed a SAR operation to have been conducted for an appropriate length of time, the incident is transferred from the RCMP's authority back to the territory's authority.

Department of Municipal and Community Affairs

The Department of Municipal and Community Affairs (MACA) connects to the Search and Rescue system through the functions of the Public Safety Division including the Emergency Management Organization (EMO), 9-1-1 program, and the Office of the Fire Marshal.

Under Section 4 of the NWT Emergency Management Act, the duties of the EMO include:

- Coordination of emergency management activities
- Support of the emergency management activities of local authorities
- Coordination, or assistance in the coordination of the response of the GNWT and public agencies to an emergency
- Exercising any other powers or duties as directed by the Minister responsible.

Section 1 of the act defines an emergency as a current or imminent event that requires prompt coordination of action or special regulations of persons or property to protect the safety, health or welfare of people or to limit or prevent damage to property or environment. Emergency management is defined as the prevention and mitigation of, preparedness for, response to and recovery from emergencies.

The EMO is currently structured as an administrative organization without operational or incident response capabilities. The EMO administers the Community Search and Rescue program which provides up to \$10,000 in funding for communities to access when conducting a community-led search. Typically, a community-led search takes place after the RCMP has concluded their involvement and deemed that a public search is no longer warranted. As a secondary response, community searches mostly centre on the recovery of individuals who have passed the point of viable survival. The Community Search and Rescue Program provides funding for eligible expenditures such as aircraft charter costs, and the purchase of groceries, fuel, and minor machine parts.

The 9-1-1 program is responsible for receiving 911 calls and processing the following call types:

- Medical calls
- Fire calls
- Policing calls
- SAR calls
- EMO / OFM calls

Upon receiving a call, the 9-1-1 program will dispatch the appropriate primary and secondary agencies and provide post-dispatch instructions to the caller. The program also has the capability to issue emergency alerts with safety instructions where necessary.

The Office of the Fire Marshal (OFM) administers the GNWT Fire Prevention Act. The OFM enforces regulation and codes, conducts plan reviews, inspects structures, and conducts fire investigations related to fire flares. From a policy perspective, MACA supports the development of local fire services. Several of the larger local fire services have the capacity to conduct ground rescues. This role of involvement in ground rescue is limited to incidents with a known location and is distinct from SAR incidents which involve an unknown location for the missing person.

Department of Infrastructure

The Department of Infrastructure is responsible for the territory's network of roads, airports, and ferries. While the department is not typically involved in SAR incidents, it employs twelve highway transport officers who may be called on as part of a response to a missing person. For example, these officers may respond to calls of missing travellers on a highway, or people stuck or lost on the winter road system.

The Department of Infrastructure is also responsible for responding to aeronautical crashes within two miles of an airport. As part of this responsibility, the department maintains a staff of twelve full-time firefighters based out of the Yellowknife airport.

Department of Industry, Tourism, and Investment

The Department of Industry, Tourism, and Investment is responsible for territorial parks. In the event of a missing person within a territorial park or campground, parks staff often initiate a preliminary search and then escalate the incident to the RCMP shortly after if the preliminary search is not successful in a short period of time. Parks staff also assist with highway monitoring in areas within and near territorial parks.

The RCMP hold the primary mandate for SAR incident management and coordination within territorial parks. While parks staff may contact the RCMP regarding incidents in territorial parks, members of the public may also contact the RCMP directly, resulting in the parks staff potentially not being involved in a specific SAR incident.

RCMP

The Northwest Territories government, as with the governments of all provinces and territories, is responsible for conducting searches for lost or overdue persons on land and inland waters, except in national parks. In the Northwest Territories and most other provinces/territories, this responsibility is delegated to the policing agency having local jurisdiction. The RCMP holds the territorial policing contract in NWT and has local jurisdiction throughout the territory.

As outlined in the RCMP national operational manual, the RCMP's primary role in SAR operations is to provide leadership with a focus on coordination, response, prevention, intergovernmental agency cooperation, and volunteers. The RCMP on-site SAR command structure typically consists of a Search/Incident Commander and a SAR Manager. The Search/Incident Commander is a sworn officer who has overall authority and responsibility for the search. The SAR Manager may be a volunteer or a sworn officer who is responsible for the management and coordination of the search. Together, the SAR Manager and Search/Incident Commander jointly determine SAR strategies and tactics, and lead and direct SAR volunteer teams. While tasks can be delegated or assigned to the SAR Manager and SAR teams, the RCMP has the final authority to make decisions in SAR operations. In practice, RCMP 'G' Division utilizes three district advisors to function as SAR managers. These district advisors are staff sergeants with training in SAR and search management and are based in Yellowknife, Inuvik, and Hay River. Upon receiving a SAR call, the local detachment commander will contact their district advisor. The district advisor will then coordinate with external agencies, if required, such as the JRCC and make any

arrangements for any additional equipment required including rotary or fixed wing aircraft. District advisors may deploy to the search site in cases where there is a prolonged or extensive search.

The Search/Incident Commander has the authority to determine the appropriate period for a search given the circumstance and may at their discretion end the search. This is typically undertaken in consultation with all stakeholders involved in the search. At this point, a community search may continue without RCMP direction or involvement if the community wishes to continue. The territory may also direct that a search be continued after the RCMP has determined it is no longer practical. In this case, RCMP recover search related expenses from the NWT government.

The RCMP rely on the use of volunteers and partner agencies to carry out the physical search in a SAR incident. While the RCMP operational manual allows for a RCMP tactical troop trained in SAR fundamentals to be used in the absence of trained volunteers, a tactical troop is not a requirement of the territorial policing agreement and is not currently implemented in the NWT. Currently, volunteers conduct most GSAR activities on-the-ground, and the Search/Incident Commander and SAR Manager support these activities by requesting assistance from outside agencies as required, arranging sufficient support services such as air transport where required.

Canadian Coast Guard

The Canadian Coast Guard (CCG) is responsible for all maritime incidents requiring SAR operations. CCG Operations for the NWT are coordinated out of Joint Rescue Coordination Centre (JRCC) Trenton. In addition to SAR operations within federal waters, the CCG may also participate in SAR operations on a humanitarian basis in cooperation with the primary authority (e.g., RCMP) where human lives are at stake. The CCG is also responsible for overseeing the Coast Guard Auxiliary.

In the NWT context, the CCG serves off the shore of northern coastal communities such as Tuktoyaktuk and Sachs Harbour. Importantly, several significant bodies of water including Great Slave Lake, Great Bear Lake, and the Mackenzie River do not fall under the CCG mandate since they are deemed to be inland waterways.

Canadian Coast Guard Auxiliary

The Canadian Coast Guard Auxiliary (CCGA) is a non-profit, volunteer-run organization which provides local search and rescue assistance to the CCG. The CCGA responds to both maritime and inland water SAR requests. As a volunteer organization, they are dedicated to responding to SAR incidents but are not obligated or mandated to respond under law or contract. CCGA bases are located across the NWT including in Yellowknife, Hay River, Tuktoyaktuk, Ulukhaktok, and Inuvik. The CCGA provides training for volunteers including boat handling, search techniques, navigation, and rescue techniques. Members are reimbursed for their time once they leave the dock but must fundraise for boat and equipment purchases.

CCGA members receive operational direction from the RCMP for inland water operations, and from JRCC Trenton for maritime operations.

Royal Canadian Air Force

The Royal Canadian Air Force (RCAF) is responsible for all aeronautical incidents across Canada. In the event of an aeronautical incident, the RCAF has the primary authority for SAR but will work together with other agencies as required to conduct the search. The RCAF can also be called on in a humanitarian role to provide secondary assistance for non-aeronautical incidents. Humanitarian requests are approved on a case-by-case basis depending on need and availability of air assets. SAR operations for the RCAF are coordinated through JRCC Trenton. Presently, the RCAF operates 440 Transport Squadron in Yellowknife with four CC-138 Twin Otters. Other assets such as RCAF helicopters and larger fixed-wing aircraft are located outside the territory with longer response times when called upon.

Canadian Rangers

The 1st Canadian Ranger Patrol Group, a unit of Joint Task Force North (JTFN), is headquartered in Yellowknife with a presence in communities across the NWT. The Canadian Ranger mandate for SAR is derived from the Canadian Armed Forces responsibility for responding to aeronautical incidents. As such, the Rangers do not have a formal mandate for responding to GSAR incidents. In practice, the Rangers maintain a policy of responding to SAR incidents on a humanitarian basis when requested, providing lives are at risk. Once a response has been approved, the local patrol sergeant can decide whether to respond or not and issue a request for volunteers from the local Rangers. Rangers cannot be compelled to respond to SAR calls but those who volunteer are paid and reimbursed for expenses.

The Canadian Rangers are highly knowledgeable on the land and with the use of equipment including snowmobiles and ATVs. They are also very experienced in survival under harsh conditions in remote environments and are often local and know the areas being searched well. The Rangers do not receive specific training on search techniques but may participate in SAR exercises on occasion as a part of their duties.

Parks Canada

Parks Canada oversees five national parks in the Northwest Territories and is responsible for SAR within these parks. Exceptions include downed aircraft, which remain a RCAF responsibility, and missing persons incidents of a criminal nature, which fall under RCMP responsibility. Parks Canada has approximately 120 employees within the NWT spread between the five parks. Most of the national parks located in the NWT are relatively remote with only Wood Buffalo National Park accessible by road.

Parks Canada maintains trained staff and equipment within the NWT, and both lead and conduct SAR operations within its parks. Staff receive training in establishing an incident command, helicopter safety, and wilderness training. Parks Canada also maintains contracts for the use of helicopters that can be utilized in SAR incidents along with fire management duties. Where required, Parks Canada may also request assistance from outside agencies such as the RCMP. Parks Canada also receives requests for assistance relating to SAR incidents outside of national parks and may assist on a humanitarian basis where resources allow.

CASARA

The Civil Air Search and Rescue Association (CASARA) is a federally funded, national volunteer organization with provincial and territorial affiliated associations. CASARA provides air support services including search coordination, air search spotters and navigators. CASARA NWT has units in Yellowknife, Inuvik, Norman Wells, and Hay River with approximately 50 members across the NWT. Each unit contains a trained search coordinator, trained navigator, and trained spotters. CASARA’s primary role in a search is to locate the missing person with subsequent rescue provided by other agencies. CASARA assists both JRCC Trenton and the RCMP but formal authorization for CASARA involvement in the NWT is coordinated through JRCC Trenton. In the NWT, CASARA does most of their work with the RCMP. The table below highlights the CASARA volunteer commitments and service demands from in the Northwest Territories.

Table 5: CASARA Statistics in the Northwest Territories

Category	Volume
JRCC Originated Calls	1
RCMP Originated Calls	15
Total Flights	19
Hours of Flying	46
Hours of Training	61
Volunteer Hours	2,200

Local Volunteer SAR Groups

Local volunteer SAR groups perform the majority of GSAR search activities across the NWT. Volunteer SAR groups must be tasked by the authority having jurisdiction (e.g., RCMP) and conduct their activities under the incident command structure and direction of that authority. Local SAR groups rely on fundraising activities to support their operation, training, administration, and the purchase of supplies and equipment. There is no centralized registry or tracking of local SAR groups at the territorial level, but groups are identified at the community level by the RCMP or town/community administration.

Volunteer SAR groups across the NWT vary widely in their level of structure, formality and maturity of processes, and level of training provided and required. SAR groups in the NWT can broadly be categorized into three levels of organization as shown in the table below.

Table 6: Levels of Structure in Volunteer SAR Teams

Level of Community Organization	Characteristics	Examples
Structured SAR Organization with Formal Training	<ul style="list-style-type: none"> Formal SAR organizational structure Formal SAR processes and response procedures Formal SAR training process and requirements Insurance coverage for members 	<ul style="list-style-type: none"> Yellowknife SAR
Structured SAR Organization without Formal Training	<ul style="list-style-type: none"> Formal SAR organizational structure Some level of SAR process and response procedures No SAR specific training requirements; may offer non-SAR training (e.g. boat safety, first aid) No insurance coverage for members 	<ul style="list-style-type: none"> Ulukhaktok GSAR volunteers
Informal SAR Organization	<ul style="list-style-type: none"> Informal SAR organizational structure May be affiliated with another community organization or assembled on ad hoc basis Minimal processes No training requirements No insurance coverage for members 	<ul style="list-style-type: none"> Hunters & Trappers members responding to a SAR incident

Currently, Yellowknife SAR is the only structured SAR organization with formal training in the NWT. Several communities currently possess structured SAR organizations without formal training. For example, Ulukhaktok operates a community GSAR team using the same volunteers who run the community’s Canadian Coast Guard Auxiliary unit. They have established formal GSAR processes and protocols but have not received formal SAR training. Many other communities currently operate informal SAR organizations which are often run in parallel with other community organizations such as the Hunters & Trappers associations. When an incident occurs, there are natural community leaders who respond and coordinate the search response without established processes or training requirements.

Operating a volunteer SAR team requires a significant time commitment from a dedicated group of volunteers. This includes time spent on administrative tasks, training and ensuring preparedness. The table below outlines the volunteer commitments made by YK SAR members as an example of the time and volunteer resources involved in operating a volunteer SAR team.

Table 7: YK SAR Year-End Statistics 2018-21

	2018/19	2019/20	/21
Active members at year-end	52	46	49
Number of searches	4	7	2
Total person-hours searching	99.5	399	269

	2018/19	2019/20	/21
Training hours volunteered	2,909	2,285	1,994
Administrative hours volunteered	219	146	243
Total person-hours volunteered (excluding on-call)	3,231	2,831	2,505

Public Safety Canada

Public Safety Canada is a federal department which contributes to SAR through the operation of the National Search and Rescue Secretariat (NSS). The NSS provides policy advice and recommendations to support SAR at a national level. The NSS plays a role in prevention, interoperability, and coordination activities within the SAR community.

Public Safety Canada offers the AdventureSmart program which is hosted in partnership with SARVAC. AdventureSmart is a national program that provides education on the importance of proactive safety in the outdoors with the goal of reducing the number, duration, and severity of SAR incidents. Programming is available in several formats including in-person presentations and online resources.

Public Safety Canada operates the Search and Rescue New Initiatives Fund (SAR NIF) which provides up to \$7.6 Million in annual funding for projects that will improve the national search and rescue program. Applications to the SAR NIF program are open to provincial and territorial governments, volunteer organizations, academia, and for-profit and not-for-profit organizations. Current priorities for SAR NIF include the national coordination of SAR, effective coordination of SAR prevention efforts, and SAR in Indigenous communities.

SARVAC

The Search and Rescue Volunteer Association of Canada (SARVAC) is a national non-profit organization that supports and develops the capacity for an effective volunteer response to SAR incidents across Canada. SARVAC is supported through the NSS and donation fundraising. SARVAC represents the provincial and territorial volunteer GSAR associations from across Canada. In the NWT, Yellowknife SAR represents the territory at the national level since the NWT does not have a territorial SAR association.

SARVAC has developed core training competency standards for SAR roles including searcher, team leader, and SAR manager. The standards have been developed through the CSA Group (formerly the Canadian Standards Association) framework and are designated as CSA Z1620. These standards are voluntary but provide the basis for effective training development and delivery, and the provision of adequate and effective delivery of SAR services.

SARVAC also provides access to several types of insurance for its associations and member teams. SARVAC's accidental death and dismemberment (AD&D) policy ensures members of local SAR teams for up to \$200,000 based on the injury type. SARVAC also provides a Directors and Officers policy which protects decision-makers within member associations and teams. Both policies are provided at no cost to the local teams. SARVAC has also established a specially written commercial general liability policy which local teams have access to and can purchase on their own. This general liability policy costs approximately \$2,000 annually per team but may be lower for smaller than average teams.

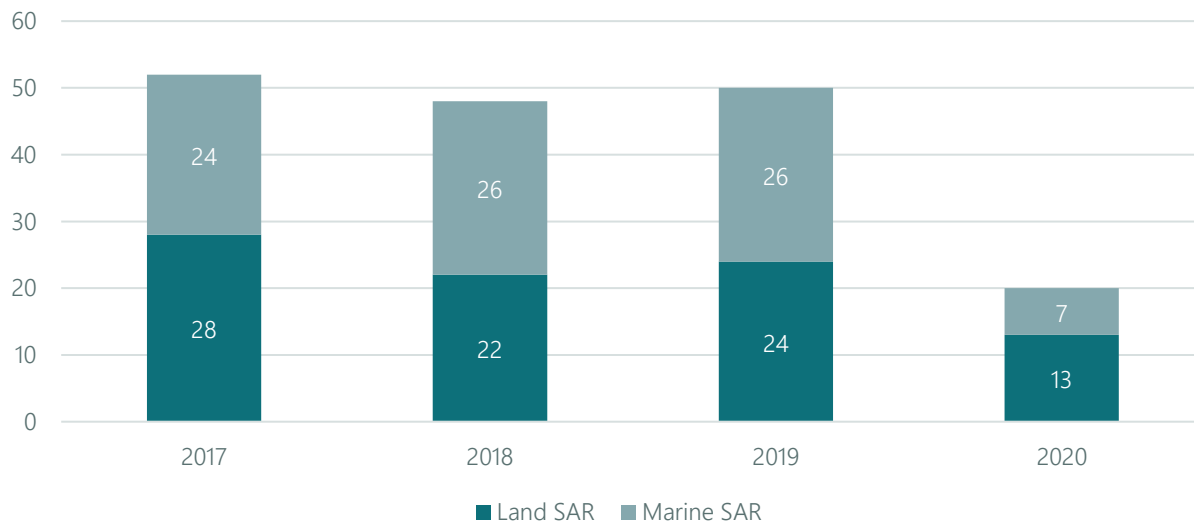
Municipal and First Nations Governments

Municipal and First Nation governments in the NWT currently do not have a direct mandate for the provision of SAR services either directly or in a capacity-building role. However, the effective provision of SAR services within their boundaries is in the best interests of these governments. In some communities, the local government serves as a base of organization for both formally and informally organized SAR groups. The contributions of the local government may include providing available space for an incident command centre, space for training activities or storage of equipment, or a role of identifying and legitimizing a local group of volunteers as the community’s SAR team.

Search and Rescue Demand

Currently SAR incident occurrences are tracked by the RCMP, Canadian Forces (CAF) and the Canadian Coast Guard (CCG) based on their involvement in SAR incidents. As explained previously in this report, the involvement of these agencies is based on their areas of jurisdiction. The figure below provides an overview of RCMP SAR incident response numbers, including the number of land-based and marine responses. Most marine responses pertain to in-land waterways as in-land waterways fall under RCMP jurisdiction. The impact of the Covid-19 pandemic is visible in both the RCMP and CAF data where incident numbers dropped significantly in . The impact of Covid-19 was supported by the interviews conducted where interviewees indicated travel restrictions halted tourism and reduced travel within the territory contributing to a decline in SAR incidents in and 2021.

Figure 1: RCMP 'G' Division SAR Incidents (2017 –)



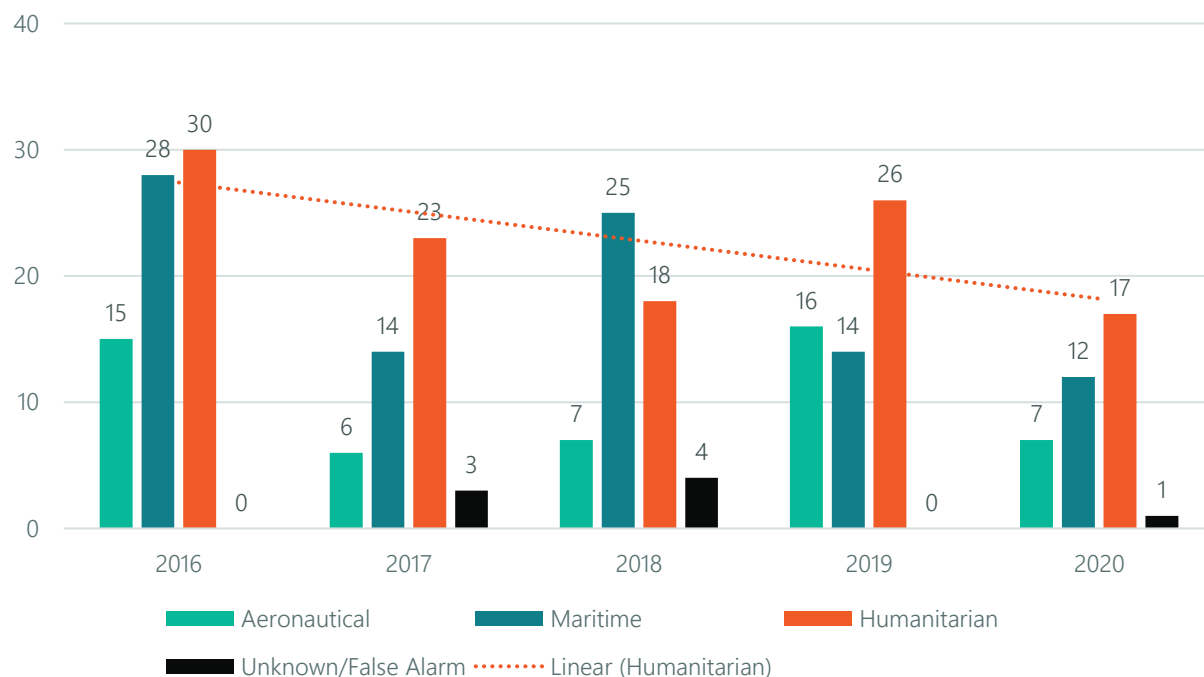
The locations of SAR incidents reported by the RCMP were distributed broadly across the Northwest Territories. The table below provides a breakdown by RCMP district on ground and in-land waterway SAR incidents for 2018 and 2019.

Table 8: Breakdown of RCMP SAR Incidents by Region (2018 – 19)

	2018	% of Total	2019	% of Total
North District	20	42%	17	34%
South District	17	35%	18	36%
Yellowknife Detachment	11	23%	15	30%

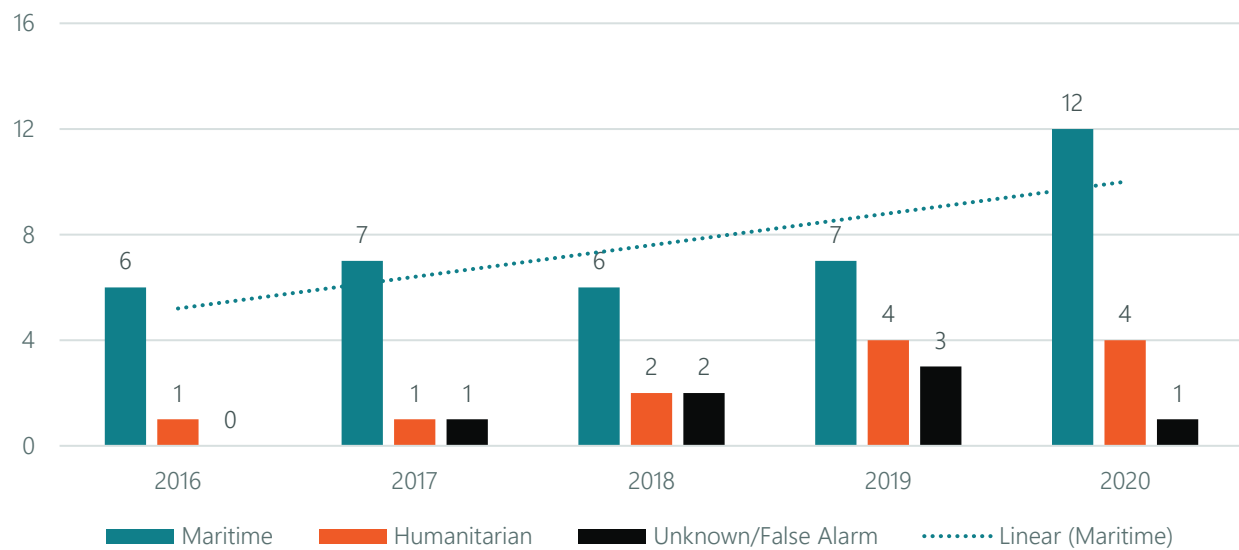
The Canadian Forces does not track SAR data for the Northwest Territories alone and includes a larger region in its SAR incident reporting. The table below includes CAF SAR launches north of the 55th parallel; this results in data from the Yukon, Nunavut, and several northern sections of the provinces being included. The CAF data excludes instances where the Canadian Rangers were deployed in response to SAR incidents. As shown below, a significant portion of the CAF SAR responses annually are for humanitarian requests. This indicates that the CAF is responding at the request of another agency, typically the authority having jurisdiction, in response to incidents that do not fall under the federal mandate for aeronautical and maritime SAR.

Figure 2: CAF SAR Launches North of 55-Degrees Latitude (Does not include Canadian Ranger deployments)



As shown in the table below, the Canadian Coast Guard responds to a relatively small number of incidents in the North. The data includes areas north of 60-degrees which extends beyond the Northwest Territories to include the Yukon, Nunavut, and northern Quebec. Unlike the RCMP and CAF data, SAR incidents responded to by the CCG during the start of the Covid-19 pandemic did not decrease and showed an upward trend.

Figure 3: Canadian Coast Guard Responses to SAR Incidents North of 60-Degrees



Summary of Current State

The table below provides a summary of the current mandates in connection to SAR incidents in the Northwest Territories.

Table 9: Summary of Current Mandate by Organization

Organization	Mandate in Connection to SAR	Service Delivery Partners
GNWT Department of Health and Social Services	<ul style="list-style-type: none"> Medical extraction of known location 	<ul style="list-style-type: none"> RCMP 911 Program
GNWT Department of Justice	<ul style="list-style-type: none"> Delegate territorial responsibility for investigating and managing the search for missing, lost, and overdue persons to RCMP 	<ul style="list-style-type: none"> RCMP
GNWT Department of Municipal and Community Affairs (MACA)	<ul style="list-style-type: none"> Dispatch through 911 program Community search and rescue program Emergency management and preparedness 	<ul style="list-style-type: none"> RCMP Municipalities
GNWT Department of Infrastructure	<ul style="list-style-type: none"> Responsible for aeronautical crashes within 2 miles of an airport 	<ul style="list-style-type: none"> RCMP
GNWT Department of Industry, Tourism, and Investment	<ul style="list-style-type: none"> Responsible for monitoring and maintaining territorial parks No SAR mandate 	<ul style="list-style-type: none"> RCMP

Organization	Mandate in Connection to SAR	Service Delivery Partners
RCMP	<ul style="list-style-type: none"> Responsible for incident command of all GSAR incidents Coordinate search response to GSAR with outside agencies 	<ul style="list-style-type: none"> Volunteer SAR Groups CCG CCGA RCAF CASARA 911 Program Canadian Rangers
Canadian Coast Guard	<ul style="list-style-type: none"> Responsible for all maritime incidents Respond to humanitarian requests as available 	<ul style="list-style-type: none"> CCGA RCAF RCMP
Canadian Coast Guard Auxiliary	<ul style="list-style-type: none"> Respond to inland waterway incidents on a volunteer basis Assist the CCG with maritime SAR 	<ul style="list-style-type: none"> CCG RCMP
Royal Canadian Air Force	<ul style="list-style-type: none"> Responsible for all aeronautical incidents <ul style="list-style-type: none"> Respond to humanitarian requests as available 	<ul style="list-style-type: none"> CASARA RCMP
Canadian Rangers	<ul style="list-style-type: none"> Respond to SAR requests as available on a humanitarian basis 	<ul style="list-style-type: none"> RCMP
Parks Canada	<ul style="list-style-type: none"> Responsible for all SAR of a non-criminal nature within national parks 	
CASARA	<ul style="list-style-type: none"> Provide airborne spotting and navigation to locate missing persons 	<ul style="list-style-type: none"> RCAF RCMP
Local Volunteer SAR Groups	<ul style="list-style-type: none"> Conduct searches for lost, missing, or overdue persons under the command of the RCMP 	<ul style="list-style-type: none"> RCMP SARVAC
Public Safety Canada	<ul style="list-style-type: none"> Provide funding for improving SAR coordination and delivery SAR prevention and education Coordination between SAR delivery agencies 	<ul style="list-style-type: none"> RCAF CCG SARVAC
SARVAC	<ul style="list-style-type: none"> Establish and maintain SAR standards Provide leadership and support for local volunteer SAR groups Provide insurance coverage for SAR groups and their members 	<ul style="list-style-type: none"> Volunteer SAR groups Public Safety Canada
Municipal and First Nations Governments	<ul style="list-style-type: none"> No direct SAR mandate Coordinate SAR volunteers in certain communities 	<ul style="list-style-type: none"> RCMP

SAR Systems in Other Jurisdictions

The following sections describe the SAR models utilized in four other jurisdictions across Canada along with their strengths and weaknesses. The jurisdictions include the Yukon, Nunavut, Manitoba, and Newfoundland and Labrador. These jurisdictions were selected to represent areas with similar geographical challenges to the NWT, as well as to represent a range of different models across the country. Each jurisdiction has its own unique circumstances and context and the SAR models in each jurisdiction reflect these unique elements in their design.

Yukon

GSAR in the Yukon is delivered in partnership between the RCMP, Yukon SAR Association (YSAR), and the Emergency Management Office of the territorial government. YSAR is a volunteer SAR association that spans across the entire territory. YSAR was formed from multiple SAR societies in separate communities and now operates on a regional model with members in communities across the Yukon. This model allows for the centralization of administrative tasks within the volunteer organization and standardized training and processes across the territory.

The RCMP are the authority having jurisdiction (AHJ) over GSAR in the Yukon. The RCMP in 'M' Division employ a divisional SAR coordinator, and typically employ five or six trained search managers. Upon receiving a missing, lost, or overdue persons report, a detachment commander will begin investigating and treat the incident as suspicious until proven otherwise. Early in the investigation, the detachment commander will contact the SAR coordinator who will take over and manage the search operations. Each SAR incident is assigned a RCMP search manager and a civilian search manager who work collaboratively and fulfill defined roles.

The EMO office provides tasking numbers to YSAR for each incident and receives claim submissions from YSAR for expense reimbursement. The EMO also provides a training budget of approximately \$25,000 to YSAR for SAR training throughout the territory.

The relationship between the RCMP, YSAR, and the EMO has been formalized in a memorandum of understanding (MOU) which outlines the roles and responsibilities of each as they relate to SAR. The contents of the MOU include:

- Clear delegation of the territorial responsibility for SAR to the RCMP
- A defined EMO responsibility for the provision of training, funding, and equipment for volunteers
- Defined SAR roles without specified internal policy and operating procedures
- Responsibilities and intentions for each party during an incident
- Clear terms on the reimbursement of expenses including parties responsible for administration and payment where the EMO administers expense claims and the RCMP pays for related search expenses

Strengths

- Clear definition of roles
- Dedicated funding for training
- SAR volunteers and resources shared between communities through a centralized incident response process
- Small communities do not have the large administrative burden involved with running a local SAR group with only a few members
- Dedicated RCMP SAR resources for management of SAR incidents

Weaknesses

- Challenges adapting the delivery model to the local context of each community
- The shared resource model and use of volunteers from outside communities may not be as helpful if local knowledge is essential to the search
- It was reported that local residents feel less connected and engaged as part of a centralized organizational structure
- Reliance on fundraising for equipment and operational costs

Nunavut

The SAR model in Nunavut is relatively unique among Canadian provinces and territories. Local SAR groups and the territorial EMO are responsible for SAR incident management, leadership, capacity building, and service delivery. The EMO is the territory's representative at SARVAC whereas most other jurisdictions have a separate volunteer association that represents the region at the national level and provides support for the province or territory. Each Nunavut community has a volunteer SAR group with a volunteer SAR coordinator. SAR calls typically come into the local SAR group, who then contacts the EMO for a tasking number and notifies the RCMP that a search is underway. The RCMP do not oversee the search, but provide support to the search where required, undertaking functions such as acting as a liaison to family members.

The EMO provides the incident command function for local SAR groups, handling over 200 incidents annually. Through tasking numbers, the EMO provides insurance coverage to local SAR groups, and reimbursement for approved expenses. These expenses include reimbursement for food and fuel, and for the use of required aircraft. The EMO employs two full-time positions dedicated to SAR and handles incoming calls on a rotating on-call basis between all five of the EMO staff members.

SAR training is provided through the EMO for all local communities on a rotating basis. The EMO sets the training standards and requirements, while the territorial government procurement office tenders the training to an external contractor. Training is four days in length and provided every two years in each community. Searchers who complete the training receive a free "go-bag", paid for by the EMO, which includes the essentials for searchers to survive on their own and participate in a search. The cost of providing training and equipment for volunteers in all Nunavut communities is approximately \$350,000 annually.

As part of its prevention activities, the EMO runs a program where they purchase Garmin inReach devices and sign them over to local communities. The local communities distribute the devices or establish a loan program where individuals can sign out the devices before going on the land. This ensures that less incidents result in a long search and avoids unnecessary searches of overdue persons who are not in distress.

Strengths

- Model is adaptable to the local context of each community
- Consistent level of training delivered in all communities
- Clear lines of communication and tasking
- Central EMO serves as knowledge base for all communities
- Sustainable design with training and administrative functions provided centrally and not reliant on volunteers

Weaknesses

- Incident command delivered centrally instead of locally
- Higher cost structure with more services delivered through EMO versus volunteers
- Challenges recruiting SAR volunteers in larger communities

Manitoba

SAR in Manitoba falls under the authority of the police service of jurisdiction which is RCMP 'D' Division in most areas of the province except Winnipeg and Brandon. 'D' Division has a full-time SAR coordinator who typically leads SAR incident command. The RCMP's primary partner in the delivery of GSAR is the province's Office of the Fire Commissioner (OFC) which typically deploys a command post trailer to the scene and works collaboratively with the RCMP in a civilian search management role. Volunteer SAR groups form the primary response to SAR incidents with approximately 22 trained GSAR teams throughout the province. When a search occurs, the RCMP will typically contact several volunteer SAR groups based on proximity and request assistance from available members. The OFC provides tasking numbers to volunteer SAR groups and reimburses searchers for expenses such as mileage.

The Manitoba government has clearly identified the OFC as the provincial agency responsible for SAR in the province through The Fires Prevention and Emergency Response Act. In the act, 'emergency response services' are defined to include search and rescue, in addition to other services such as fire suppression. Under the powers of the fire commissioner, the act outlines that the "fire commissioner may...provide and co-ordinate resources used for search and rescue". The RCMP and OFC have established a MOU outlining the responsibility of the OFC to deliver GSAR training to volunteer SAR groups through the Manitoba Emergency Services College in Brandon. This training is delivered on a regional basis. The MOU also outlines the responsibility of the OFC to coordinate the response of the volunteer SAR network to support the RCMP in the case of lost or missing persons. In addition, the OFC facilitates the training of civilian search dogs through the Manitoba Emergency Service College.

Search and Rescue Manitoba (SARMAN) was established as a provincial SAR association in partnership between the RCMP, OFC, and the provincial EMO. SARMAN operates an advisory council which serves as a forum to discuss and share information between its members and SAR delivery organizations. The council reviews Public Safety Canada SAR NIF applications and makes recommendations for approval. SARMAN has also established the SARMAN Volunteer Association which represents the volunteer SAR groups across the province.

In addition to a dedicated SAR coordinator position within RCMP 'D' Division, the RCMP also maintain a group of RCMP members who are trained and experienced in GSAR. These members carry out other full-time responsibilities and receive a call-out on an overtime basis when a SAR incident occurs. There is not a requirement for the RCMP to deploy members and participate in a search, but this often takes place when members of this team are available to respond. While there is a well-developed network of volunteer SAR groups in the southern section of the province, some northern Manitoba communities have limited community experience and involvement in SAR. If there are no local SAR volunteers available, the RCMP may deploy their own members on occasion to conduct the search or may request assistance from the Canadian Rangers when a unit is located nearby.

Strengths

- Clear definition of roles and responsibilities
- Direct search involvement from all stakeholders including volunteers, OFC, and RCMP providing a multi-layered and more resilient response system
- SAR equipment and resources provided centrally through the OFC

Weaknesses

- Lack of volunteer SAR groups and regular training in remote northern communities, potentially resulting from the centralized nature of the SAR program (in the south) and a lack of engagement with individual communities on SAR
- Training typically provided once and not updated on a regular basis

Newfoundland and Labrador

In Newfoundland and Labrador, the authority having jurisdiction over GSAR incidents is the police force of jurisdiction (RCMP or Royal Newfoundland Constabulary (RNC)). Thus, the responsibility for incident command of GSAR incidents falls to either the RCMP or RNC. The Newfoundland and Labrador Search and Rescue Association (NLSARA) operates as a province-wide association for volunteer SAR teams. NLSARA includes 25 local GSAR teams with over 750 members that operate under its leadership. The SAR teams are established at the local level but operate under the guidelines of the NLSARA. NLSARA is part of SARVAC and responds to approximately 140 – 160 incidents annually.

NLSARA receives direct funding from the provincial government including the following annual amounts:³

- \$75,000 for operating costs
- \$16,000 for radio licenses
- \$100,000 for vehicle and water vessel maintenance and training

In addition to the above funding, NLSARA also fundraises to support its operations and programs. The Government of Newfoundland and Labrador provides Workers Compensation and liability insurance coverage for all NLSARA members. SAR volunteers have access to the provincial Employee Assistance Program (EAP) for critical incident stress management. Equipment is also issued to local SAR teams through NLSARA.

Due to the geography and nature of GSAR incidents in Newfoundland and Labrador, helicopters are used frequently in SAR incidents and all SAR team members receive training in working near aircraft. Helicopters are available for use in SAR incidents through the Department of Justice and Public Safety, Emergency Services Division (ESD).

In contrast to most other police services, the Royal Newfoundland Constabulary takes a proactive approach to SAR and includes GSAR training as part of its core curriculum for all cadets. This provides a widespread understanding of the SAR response throughout the service.

Strengths

- Centralized volunteer association is given the mandate for SAR training and equipping, and is empowered with the funding for this mandate
- Central volunteer association provides a consistent approach to training and managing local SAR teams

Weaknesses

- Heavy reliance on volunteers as a model that manages SAR through a central non-profit association

Summary of Comparison Jurisdictions

As outlined in the above sections, each jurisdiction examined has unique elements in their approach and different structures to meet local contexts. The table below provides a comparison and summary of key elements in each jurisdiction. The NWT stands out as the only jurisdiction without an agency holding clear responsibility for training and equipping volunteer SAR teams. By comparison, the NWT also lacks written clarification of SAR roles and responsibilities where the other evaluated jurisdictions

³ Smith, R. (2021, June). Exhibit 4: Discussion Paper. Public Inquiry Respecting Ground Search and Rescue for Lost and Missing Persons. Retrieved February 11, 2022, from <https://www.nlgsarinquiry.ca/files/Exhibit-P-004.pdf>

have an MOU and/or a direct reference to SAR in legislation to assist in the clarification of SAR responsibilities at the provincial or territorial level.

While the other jurisdictions reviewed shared several common strengths, they have also all identified areas where improvement is required. One area identified by several was the need for improved tracking of SAR volunteers and resources. Most jurisdictions currently lack a comprehensive central tracking system with up-to-date information on trained volunteers, available resources, and other relevant information. This information is often held in a fragmented system at a local level where a centralized, unified system could enhance operational effectiveness and enable further improvements.

Table 10: Summary of Comparison Jurisdictions

	Northwest Territories	Yukon	Nunavut	Manitoba	Newfoundland
Authority having jurisdiction (AHJ) for Aeronautical SAR	RCAF	RCAF	RCAF	RCAF	RCAF
AHJ for Maritime SAR	CCG	CCG	CCG	N/A	CCG
AHJ for GSAR including inland waterways	RCMP	RCMP	RCMP	RCMP	RCMP/Royal Newfoundland Constabulary
Agency providing SAR incident management	RCMP	RCMP	EMO	RCMP	RCMP/RNC
Agency that issues tasking numbers to volunteer SAR teams	RCMP	EMO	EMO	OFC	RCMP/RNC
Agency responsible for training and equipping SAR volunteers	None	EMO	EMO	OFC	NLSARA
Specific reference to Search and Rescue in Provincial / Territorial legislation	No	No	SAR included in Emergency Measures Act	SAR included in The Fires Prevention and Emergency Response Act	No

	Northwest Territories	Yukon	Nunavut	Manitoba	Newfoundland
Use of MOU to clarify roles	No	Yes. Between YSAR, RCMP, and EMO	No	Yes. Between OFC and RCMP	Yes. Between province and CASARA
SAR Training Provided by Province / Territory	None	EMO provides annual training budget to YSAR	EMO conducts bi-annual training in each community	OFC conducts training through Manitoba Emergency Services College	Provincial funding to NLSARA for GSAR training
SAR Equipment Provided by Province / Territory	None	EMO assets such as watercraft, ground vehicles, and communication devices available for use on request	Searcher go-bags and inReach devices provided to searchers and local SAR groups	OFC maintains array of SAR equipment for deployment to SAR scene	Provincial funding to NLSARA for equipment purchase and maintenance

Findings

The following sections include findings from this review based on interviews and consultations with relevant stakeholders, the review of current legislation, processes, policies and reports to create the current state description described in the previous sections and the meritorious opportunities presented within the jurisdictional review. Findings or system gaps have been organized in three categories including:

- Search and rescue mandate
- Search and rescue capacity
- Operational findings

Search and Rescue Mandate

Finding #1: No Departmental Mandate for Capacity Building at the Local SAR Level

The Government of the Northwest Territories is collectively responsible for all Search and Rescue on the ground and inland waterways (excluding aeronautical incidents and national parks). Through the Department of Justice and the territorial policing contract, the territory delegates the authority for incident command of lost and missing persons incidents to the RCMP. Beyond this delegation of incident command activities, there is no clear departmental responsibility or delegation of mandate for building SAR capacity by training and equipping volunteer SAR teams. At present, no GNWT department is mandated the responsibility of training and equipping SAR teams, tracking existing SAR resources, providing centralized communications and coordination across SAR teams, implementing preventative initiatives, or setting common standards for SAR in the territory. This leaves a gap in responsibility at the territorial level and has resulted in an underdeveloped system of volunteer SAR teams who lack the resources required to be fully effective and safe.

Finding #2: The RCMP Are Operating Outside of Their Core SAR Mandate

It was reported that RCMP members are at times operating outside of their core mandate and responsibilities when responding to SAR incidents. As outlined earlier in this report, the RCMP mandate includes the responsibility for SAR incident command and search management but does not include the mandate for conducting searches and/or rescues with RCMP members. As an example, stakeholders provided verbal reports of RCMP members performing medical rescues or assisting community members in performing technical rescue activities where neither the community members or RCMP members had relevant equipment or training. In some of the cited instances, RCMP members participated outside their mandate to prevent a presumably worse outcome than with untrained

community members responding alone. Since most RCMP members do not receive specific search and rescue training, and are not equipped to perform specialized rescues, operating outside of the core RCMP SAR mandate can increase the physical risks faced by members and the liability risks faced by 'G' Division.

There has been some acknowledgement by NWT departments that the RCMP are operating outside of their core mandate but there is a lack of clarity on how these situations should be handled in the future, particularly since there is an uncertain transition date to a SAR model that addresses the current gaps. This lack of clarity centres on section 2.3 (a)(b) of the territorial policing contract which is included below:

- 2.3 a) *The Territorial Police Service will not be required to perform any duties or provide any services that are not appropriate to the effective and efficient delivery of police services in the Northwest Territories.*
- b) *If, at the date of this Agreement, the Territorial Police Service is performing any duties or providing any services referred to in paragraph (a), the Service will continue to perform such duties and provide such services until such time as these duties and services are performed or provided by some other persons.*

While the policing contract states that RCMP will continue performing any duties and services they performed prior to the contract until these duties are provided by some other person, the practical application of this can be unclear. For instance, RCMP have operated outside of their SAR mandate in the past only on a case-by-case basis, with the final decision being made by a senior officer. The criteria for RCMP involvement are largely judgement-based using factors such as the risk to RCMP members, available alternatives, and the risk to members of the public. It can be challenging to compare judgement calls from the past and apply them to situations in the future using section 2.3. Further, this lack of clarity does not provide certainty on the provision of SAR services in the future.

The assessment of this finding is that the lack of clarity around SAR roles and mandates is a contributing factor to the RCMP at times operating outside of their core mandate.

Finding #3: Lack of Clear Definitions for Search and Rescue

Through the review of the agencies and departments involved in the delivery of search and rescue services, there was not a clear, broadly accepted definition for what constitutes a search and rescue incident. The lack of clear definitions makes interagency coordination more challenging as the parameters defining a search and rescue incident are not stated explicitly. Further, there is not a single definitive reference point for departments and agencies to utilize when defining whether activities or services are part of a search and rescue incident, or whether they fall under another incident type.

Territorial Policing Contract

Across all police agencies including the RCMP, it is generally accepted that the police service having jurisdiction is responsible for lost and missing persons as part of their policing duties. In the territorial policing contract between the GNWT Department of Justice and the RCMP 'G' Division, search and

rescue is not specifically defined and is only explicitly mentioned in one instance. This reference occurs in section 11.7:

11.7 The Territory will pay 100 per cent of all of the costs incurred by the Territorial Police Service in respect of:

- e) all incremental costs incurred when, at the request of the Territory, the scope and duration of a search and rescue operation is extended beyond that which the Commanding Officer considers to be appropriate in the circumstances and the Commanding Officer has so advised the Territorial Minister.

Emergency Management Act

The NWT Emergency Management Act provides a definition for an emergency and emergency management and provides a legislated mandate for the NWT Emergency Management Organization (EMO). Under the Act, the EMO is responsible for leading the GNWT in the coordination of emergency management activities, supporting the emergency management activities of local authorities, and coordinating or assisting in the coordination of the response of the GNWT and public agencies to an emergency.

The Emergency Management Act (2018) defines an “emergency” as follows:

"emergency" means a current or imminent event that requires prompt coordination of action or special regulation of persons or property in order to protect the safety, health or welfare of people or to limit or prevent damage to property or the environment; (situation d'urgence)

Based on the above definition for an emergency, it is not clear whether search and rescue is intended to be included and whether this results in a direct mandate for the EMO in connection with search and rescue.

Search and Rescue as a Distinct Service

Search and rescue comprise a distinct service. There is value in clearly defining what constitutes a search and rescue incident. A clear definition of a search and rescue incident enables departments and agencies to share a similar language and focus on providing adequate services to all incidents that fall within their mandate and scope of operations. The lack of clarity on the definition of a search and rescue incident increases the communication requirements on an incident-by-incident basis and removes the focus from providing the highest level of service possible by each organization within their mandate.

Finding #4: Lack of Awareness of Current Mandates and SAR Protocols

Stakeholder engagement revealed a lack of awareness of the current mandates for search and rescue, and the protocols for activating specific resources. This lack of awareness extended across a range of departments and organizations involved in the delivery of SAR services. At a broad level, each organization generally understood their own processes and internal roles, but many individuals working

within these organizations have a narrow view of the SAR response that is confined to their own organization. This leads to a lack of understanding on how all the organizations delivering SAR-related services interact and work together. This limited understanding can lead to lost time responding to incidents, or an underutilization of resources responding to an incident.

As an example, the RCMP are assumed by some (both internal and external to the RCMP) to fill any gaps in the delivery of SAR services when responding to an incident. This expectation can extend beyond the stated mandate of the RCMP over incident command and search management to an expectation of the RCMP conducting search and/or rescue activities in the field with RCMP members. There is the potential for communication delays in cases where the RCMP are unable to provide resources to service requests outside their mandate. In contrast, a widespread awareness and knowledge of the correct mandates and protocols for SAR response could reduce or eliminate communication inefficiencies during a SAR incident.

A reliance on the knowledge and relationships of long-term staff within SAR service delivery organizations was identified as critical to maintaining a correct understanding of SAR mandates and protocols. Mandates were generally well-understood and followed where long-term staff were present in key roles. This creates a high degree of system risk if these individuals were to leave. In contrast, positions where there was higher turnover or where the staff were not regularly involved in the response to SAR incidents had a mixed understanding of the current SAR mandates and greater gaps in knowledge and awareness of the full SAR response system.

Search and Rescue Capacity

Finding #5: Volunteer SAR Groups have Limited Capacity

Volunteer SAR teams form an essential component of the SAR response network across Canada. For GSAR, the authority having jurisdiction is mostly reliant on volunteer SAR teams to conduct the search activities on the ground. In the Northwest Territories, there is a widespread lack of volunteer SAR team capacity. As outlined below, the lack of volunteer SAR capacity is impacted by several factors and challenges.

Limited Number of Organized and Qualified SAR Teams

There are a limited number of organized and qualified SAR teams across the NWT. For example, stakeholder interviews revealed Yellowknife SAR (YKSAR) is the only volunteer SAR team in the territory that follows the current SARVAC CSA training standards. Several communities have organized volunteer SAR teams but lack formal GSAR training to appropriate standards. Some of these groups train members in wilderness first aid and may have training in water rescue due to member involvement in the Canadian Coast Guard Auxiliary but lack formal training in ground search techniques and protocols. In addition, many communities lack a formally organized volunteer SAR team and rely on untrained volunteers who are associated with other community organizations such as the Hunters & Trappers associations for volunteers in a SAR incident. Some communities also rely on the Canadian Rangers to provide local members in the event of a search. While the Canadian Rangers possess a well-developed

knowledge of the outdoors and survival, they do not receive formal training in GSAR technique or procedures.

Access to local volunteers in a SAR incident is particularly important in the context of the Northwest Territories where local knowledge is critical to successful searches. While community members often have an expert knowledge of tracking and survival outdoors, the lack of GSAR training in many communities hinders the coordination and effectiveness of group search efforts.

Lack of Funding Available to Local SAR Teams

All operational funding for volunteer SAR teams in the NWT is fundraised by volunteers. There are currently no territorial funding sources for volunteer SAR teams and funding sources such as Public Safety Canada's SAR NIF program are focused on specific projects instead of sustainable operating funding. A well-organized team will incur essential basic expenses on an annual basis simply operating and completing basic administrative and training functions. These expenses include costs such as insurance, website hosting fees, and a P.O. box address. Additional expenses may also include office supplies, and tools for tracking or communicating with volunteers. Volunteer SAR teams also require a minimum level of equipment for members to take on searches such as vests, GPS devices, or technical rescue equipment. This equipment must be purchased, maintained, and periodically replaced as the expense of the volunteer SAR team.

Currently, volunteer SAR teams in the NWT spend a significant amount of time fundraising to meet their operational funding needs. By spending this time on fundraising, volunteer SAR teams are left with less time for skill development and training for SAR incidents.

Based on anecdotal evidence from YK SAR, we believe that volunteer SAR teams would require approximately \$10,000 annually to cover basic operating expenses (excluding any additional training expenses) and enable them to focus on SAR activities instead of fundraising. Due to the limited administrative capacities of volunteer SAR teams, future funding sources would be required to maintain low barriers to entry. For example, requirements for individual local SAR teams to maintain charitable status as a condition for funding may present a barrier for small teams due to the administrative burden.

Limited Number of Qualified SAR Instructors Across Territory

Stakeholder interviews indicated there is a limited number of qualified SAR instructors in volunteer SAR teams throughout the NWT. This places a large responsibility for training on a few individuals and presents significant risks when these key individuals retire, move on, or are no longer involved in training. These instructors are also typically located near larger population centres, leaving little access to qualified instructors in smaller, remote communities. Due to the lack of funding available to volunteer SAR teams, training is currently conducted on a volunteer basis only and teams do not have access to paid contractors who charge for training services.

Volunteers are Under Pressure

Volunteer SAR team members in the NWT are typically very active in their community. As a result, most SAR team volunteers have multiple community volunteer roles and commitments. Consequently, volunteer time is very valuable, and organizations need to be sensitive to the external demands on volunteers' time to maintain volunteer participation. In the case of SAR incidents that occur during working hours, there are additional pressures in place where volunteers need to justify time away from work to their employer and balance the time spent on a search with their employment commitments.

Lack of Mental Health Supports Available After Searches

Review findings indicated many communities in the NWT lack a framework for debriefing after a search. Searches can be traumatic, with volunteers often having personal connections to the missing person. In addition, volunteers may be involved in the discovery or recovery of a body, leading to intense emotions which need to be expressed and processed appropriately. Following a search or difficult incident, a formal debrief with time for sharing and lessons learned is important, along with access to elders and/or counsellors for those who need to work through difficult emotions. Many communities lack access to these resources however, and search volunteers are left facing their emotions and managing their mental health alone.

Finding #6: Lack of Rescue Capability for Known Location Incidents

Stakeholders identified a service gap in rescue and medical response capability for certain known location incidents. The Med-Response program has no technical rescue capability and is only able to transport packageable patients who are accessible near a viable landing site.

Gaps were also identified in the ground ambulance system which leaves most regions at a significant distance from larger population centres and without access to ground ambulance services. This directly impacts SAR when a lost person is injured. The lack of rescue capability for known location incidents also has impacts beyond the scope of SAR and the focus of this report.

In addition to a lack of rescue capabilities, stakeholders indicated Med-Response lacks a strong incident command capability to manage incidents within their mandate. In certain instances, this has led to a reliance on the RCMP for coordination which is outside of the RCMP's core area of responsibility.

There are no alternate responses available at the territorial level when Med-Response is unable to respond to a known location medical incident and there is no ground ambulance service in the community. In these instances, a request can be made to the Canadian Forces for humanitarian assistance based on the resources available to the CAF at the time.

Finding #7: Lack of SAR Capacity on Inland Waterways

There is limited SAR response capacity along the Mackenzie River and other inland waterway sections where the Canadian Coast Guard Auxiliary (CCGA) do not operate and there is no mandate for responsibility assigned to another agency. Currently, there is a CCGA presence on Great Slave Lake and

along the northern NWT coastal region. In areas where the CCGA does not operate, rescues are often conducted by private citizens with no formal training or SAR affiliation, or by RCMP members if there is an RCMP boat and staff available. There is often no local volunteer SAR team near many inland waterways, and SAR teams outside of the CCGA do not currently train for water rescues or have necessary equipment for conducting water rescues safely.

The lack of trained and equipped SAR volunteers along many inland waterways presents a risk to both the RCMP and members of the public who assist in water rescue incidents. As with land-based SAR, it is crucial for individuals involved to be properly trained to accurately assess and avoid the related risks. Further development of SAR capacity is required to deliver SAR services adequately and safely across all NWT inland waterways.

Operational Findings

Finding #8: Lack of Communication Between SAR Stakeholders

A lack of communication was reported between SAR stakeholders in the NWT except as required during the actual SAR response. There was also anecdotal evidence that communication between SAR service providers was better and has declined in recent years. For example, the Northern SAR Roundtable was held in the past but has not been operational for several years. Stakeholders noted the value of the Northern SAR Roundtable to build inter-agency relationships and cooperation.

Communication was reported as largely reliant on personal relationships between individuals within organizations. Outside of this personal connection, there is no formal communication forum or gathering for sharing lessons learned, best practices, or knowledge between NWT organizations. Inter-agency cooperation is also not currently being improved or discussed through training or table-top exercises between agencies.

Due to the interdependent, multi-layered nature of the SAR response system, the lack of communication between stakeholders presents a significant systemic gap. To achieve and maintain effective interoperability, organizations should have a forum for communication, resolving gaps or differences, and learning from each other's strengths. The lack of this interagency communication has contributed to a narrower understanding of the SAR system and an inward-facing focus where organizations do not properly understand how the entire SAR system works together.

Finding #9: Lack of Clarity on SAR Response Process

Stakeholders presented a mixed level of understanding within community organizations and the RCMP on who to call for specific incident types. This lack of clarity on SAR response process was particularly evident when there were no trained volunteer SAR teams in the community. While the RCMP have clear internal processes for detachment members to contact their district advisors when they encounter SAR incidents, stakeholders also described instances where members were unclear on when JRCC should be activated, and who to call to activate the Canadian Rangers or the RCAF.

It was also noted that two channels of communication, one formal and the other informal, were used to operate more effectively between partner agencies. For example, CASARA or the CCGA must be tasked through official channels but may operate more effectively in the field when communicating directly outside of these official channels. While the use of unofficial channels was cited as helpful from an operational perspective, it adds more complexity and less clarity to the response process. Overall, multiple stakeholders identified the existing risk for potential delays in the response while responders are clarifying the correct course of action when they are unclear on the SAR response process.

Finding #10: Strong Community Connection to SAR

There is a strong community connection to SAR across the NWT in the current SAR system. When a SAR incident arises, there is a strong willingness at the community level to help. Volunteers in SAR-related organizations are also typically involved in multiple community volunteer roles, and some hold more than one role in connection to SAR. For example, a Parks Canada employee may also be a member of their local CCGA or GSAR team.

There is generally a collaborative attitude between all the organizations and stakeholders delivering SAR services in the NWT. While perspectives may differ at times, there is a mutual respect between individuals across the SAR network and a strong willingness to deliver the best SAR response possible.

The strong community connection to SAR and the collaborative attitude shared by organizations in the NWT offers a key strength that can be drawn on in pursuit of improvements to the SAR system.

Summary of Findings

The findings identified highlight a widespread need for more formalized SAR structure with clear mandates, more system capacity, increased clarity of roles, and a greater level of communication between partners. The lack of volunteer SAR capacity, including the lack of GSAR training, poses a significant risk to the success of future SAR operations. Further, lack of capacity places undue risks on members of the public and organizations who participate in search activities without the appropriate training or equipment. This involvement of untrained individuals, at times without proper equipment, raises the risk of a SAR team member being injured or killed while trying to help save a member of their community. As outlined in the recommendation section to follow, there are important steps the territory can take to mitigate these risks and improve the outcomes of future searches.

Table 11: Listing of Report Findings

Search and Rescue Mandate	
Finding #1	No Departmental Mandate for Capacity Building at the Local SAR Level
Finding #2	The RCMP Are Operating Outside of Their Core SAR Mandate
Finding #3	Lack of Clear Definitions for Search and Rescue
Finding #4	Lack of Awareness of Current Mandates and SAR Protocols

Search and Rescue Capacity

Finding #5 Volunteer SAR Groups have Limited Capacity

Finding #6 Lack of Rescue Capability for Known Location Incidents

Finding #7 Lack of SAR Capacity on Inland Waterways

Operational Findings

Finding #8 Lack of Communication Between SAR Stakeholders

Finding #9 Lack of Clarity on SAR Response Process

Finding #10 Strong Community Connection to SAR

Recommendations

The following sections outline recommendations to address the gaps identified in the findings above, and to strengthen the delivery of SAR services in the NWT. Recommendations have been organized into the following categories:

- Recommended Mandate
- Service Delivery Recommendations

Recommended Mandates

The recommendations that follow outline the mandates we believe form the basis of a future state SAR model that will address the current gaps in the NWT.

Recommendation #1: Provide EMO with Mandate for SAR

The Government of the Northwest Territories should provide MACA and the EMO with a clear mandate for Search and Rescue, including the primary responsibility to equip, train, and build capacity in volunteer SAR teams, and to support prevention activities in the NWT. These responsibilities should rest with the EMO for several reasons:

- The EMO is currently responsible for community-led search funding applications
- SAR is considered an emergency management function across most other Canadian jurisdictions
- The EMO is currently listed as the territorial partner for Public Safety Canada's SAR New Initiatives Fund⁴
- SAR capacity building leverages existing relationships and complements existing activities conducted by MACA and the Public Safety Division

As part of this new mandate, it is recommended that the EMO take on a role as an umbrella organization representing SAR at the territorial level. This would include taking over representation for the territory at the national level at SAR-related forums including SARVAC.

This new mandate for the EMO will require the EMO to receive additional funding and staffing to effectively fulfill the new mandate. Based on comparisons with other jurisdictions, the EMO may need an additional two full-time staff members with primary responsibility for SAR. Additional funding will also be required to support subsequent service delivery recommendations outlined in this report.

⁴ Public Safety Canada (2021, November 1). Search and Rescue New Initiatives Fund: Partner List. Retrieved March 4, 2022, from <https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/rspndng-mrgnc-vnts/nss/nif-prtnrs-en.aspx>

Recommendation #2: Assess Current RCMP Mandate

The RCMP and EMO should collaboratively assess the current core RCMP mandate to develop a shared understanding of the future RCMP mandate in response to SAR incidents. The current core RCMP Mandate includes:

- Responsibility for lost and missing persons including incident command and coordination of response resources
- Facilitation of inter-agency cooperation in response to SAR incidents
- Responsibility for SAR incident-related expenses until search is ended or turned over to the community

The RCMP should maintain their current core mandate as outlined above. As referenced in Finding #2, the RCMP are also contractually obligated to continue providing services outside of their core mandate when they have been provided in the past, until another service is in place. This additional obligation can be unclear in practice, there is a need for departments to assess the viability of the RCMP continuing to fulfill SAR tasks outside of their core mandate. Further clarification is also required to outline what response is required from the RCMP under section 2.3 of the territorial policing contract due to the unclear nature of the current state. Once tasks are identified as being outside of the core RCMP mandate, the territory should explore alternative service delivery options and create a transition plan with timelines to transfer the current services to a new service provider.

Recommendation #3: Clarify SAR Roles and Responsibilities Through a Memorandum of Understanding

The EMO should initiate and establish a memorandum of understanding (MOU) between the EMO and RCMP to clarify their respective roles and responsibilities in connection to search and rescue. The MOU is a crucial component of addressing the current lack of shared definitions, clarifying responsibilities for filling the current gaps in the SAR system, and documenting the agreed upon mandates and responsibilities. The Memorandum of Understanding should define:

- What constitutes a SAR incident
- Responsibilities of each party in an incident
- Responsibility for training, equipping, and building capacity in volunteer SAR teams
- Who is responsible for issuing tasking numbers to volunteer SAR teams
 - Tasking numbers are widely used across jurisdictions to authorize formal involvement by an agency and confirm the coverage of insurance and expenses of the tasked agency by the tasking agency
- Who is responsible for reimbursing incident expenses
- Who will manage the administration of incident expense claims
- Communication expectations between agencies

The MOU is intended to serve as a shared reference point for responsibilities but does not replace the value provided by regular communication between organizations. The goal of an MOU is to move the

conversation past a discussion of responsibilities to one of implementation and further operational improvements to the SAR system.

Service Delivery Recommendations

The recommendations that follow outline improvements to the delivery of SAR services throughout the Northwest Territories.

Recommendation #4: Provide Funding to Volunteer SAR Teams

To ease the burden on the volunteer SAR teams and allow them to focus on training and providing service, it is recommended the territory, through the EMO, provide funding to volunteer SAR teams in three key areas:

- Operating funding
- Training funding
- Equipment funding

Funding should be structured to flow from the EMO directly to local volunteer SAR teams. The local control of funding is important in the NWT given the wide range of community sizes, and cultural and geographical contexts. To maintain a transparent and low-barrier process, it may work best to enable the local government to designate the volunteer organization responsible for SAR in their jurisdiction, with EMO funding flowing to this organization. This process would enable a range of organizational structures to fulfill the role of the local volunteer SAR team, including community organizations such as the Hunters & Trappers associations or Indigenous Guardians. To ensure accountability and transparency for the uses of funding, annual reporting should be required to ensure funds are used for the defined, approved expenditures under one of the following three categories above.

Operating Funding

Operating funding is required to provide a stable base to volunteer SAR teams. This operating funding is critical to avoiding volunteer burnout and volunteer time consumed by fundraising. Access to stable operating funding enables the quicker establishment of new volunteer SAR teams, as initial efforts can be dedicated to operationalizing the team instead of raising funds.

Based on anecdotal data provided by YK SAR, approximately \$10,000 per year would be adequate for each volunteer SAR team. This funding would cover expenses including insurance, website hosting fees, a P.O. box address, and other administrative costs. It is important for the operating funding to have low barriers to access to realize maximum benefit. For example, implementing a requirement for SAR teams to maintain non-profit status would present a potential barrier due to the high administrative requirements to file for and maintain this status.

Training Funding

Training funding is required to facilitate regular training that meets SARVAC CSA standards to all NWT volunteer SAR teams. The NWT has a shortage of volunteer SAR trainers and as a result, they are currently unable to adequately cover the territory on a volunteer basis. Further, the volunteer groups who have a trainer as part of their group face significant risks because they are dependent on one or two key individuals to provide all their training. By providing funding for paid trainers, the NWT will be able to fill the current training gap in the volunteer environment. The implementation of training funding could be approached several ways, including a centrally coordinated model like Nunavut, or by having funds available to local SAR teams to coordinate training independently as in the Yukon.

Equipment Funding

Equipment funding would allow volunteer SAR teams to purchase and maintain their own SAR equipment. The equipment required by SAR teams typically includes GPS devices, go-bags, safety vests or uniforms, among other search equipment. Training and equipment costs were estimated to cost a combined \$14,000 annually per team. This was estimated using the costs provided by Nunavut and matches their cost of training and equipment per team.

Recommendation #5: Work with Volunteer SAR Teams to Meet Recognized Training Standards

Once assigned the mandate and upon the operationalization of new dedicated SAR, the EMO should enable and support quality training that meets the SARVAC CSA standard in all communities. YKSAR is the only NWT volunteer SAR team currently training members to recognized GSAR standards. Standards are an integral part of risk management for occupations and tasks that involve potential dangers and risks. They ensure volunteers are safe, lower the liability risks to the GNWT, and raise the effectiveness of search teams in completing their objectives.

There are existing core competency and training curriculum standards created by SARVAC that could serve as a baseline for training and curriculum development. The SARVAC CSA standards include:

- CSA Z1620-15: Core competency standards for ground search and rescue operations: Searcher, team leader, and SAR manager
- CSA Z1625-16: Training curriculum standards for ground search and rescue operations: Searcher, team leader, and SAR manager

The EMO's role in implementing this recommendation should be to enable and support quality training that meets the SARVAC CSA standards in all communities. The funding and supports provided by the EMO for training should reflect these goals.

Recommendation #6: Establish Regular Meetings Between SAR Partners

The EMO should lead the establishment of regular meetings between SAR delivery partners in the NWT, and across adjacent jurisdictions. There would be value in all northern SAR partners, including SAR agencies from the Yukon, Nunavut, and northern Quebec, meeting at least annually. The NWT territorial SAR partners should meet at least annually. Organizations invited to both the regional and territorial meetings should include: JTFN, CCG, Public Safety Canada, Parks Canada, CASARA, CCGA, SARVAC, RCMP, and GNWT representatives, in addition to representatives of the EMO's and volunteer SAR groups and associations.

The goals of regular meetings between partners should include:

- Sharing best practices
- Enhancing coordination by conducting table-top exercises
- Identifying service delivery gaps
- Building personal relationships across agencies to enhance communication

Due to the type and nature of the organizations invited, there may be an opportunity to combine an annual northern SAR meeting with another significant gathering such as a meeting of the Arctic Security Working Group.

Recommendation #7: Utilize SAR NIF Program to Fund SAR Improvements

It is recommended that the territory use the Search and Rescue New Initiatives Fund (SAR NIF) to fund improvements to the NWT SAR system wherever possible. Additionally, the EMO should proactively identify opportunities to utilize SAR NIF funding, and support NWT organizations in applying for SAR NIF grants.

The Search and Rescue New Initiatives Fund (SAR NIF) is managed by Public Safety Canada and provides up to \$7.6 Million annually to projects that improve SAR. The EMO is currently listed by Public Safety Canada as the NWT partner for SAR NIF funding; however, although consultation indicated SAR NIF funding has not been utilized by the EMO. As a result, SAR NIF funding is widely underutilized by organizations in the NWT.

Recommendation #8: Investigate Available Options to Expand Med-Response Capabilities

The NTHSSA should investigate and implement options to expand the Med-Response program to include broader medical extraction capabilities, including the capacity to perform rescues of known-location patients. Currently, the Med-Response program is resourced as an air ambulance program where a fixed-wing or rotary-wing aircraft must be able to safely land near the patient. The patient must also be deemed packageable where the medical crew is able to safely access a patient to provide necessary medical stabilization and interventions for transfer. These limitations prevent the Med-Response program from responding to known-location medical incidents where a suitable landing site is not available, or where some level of technical rescue would be required once they land (e.g.

extricating a patient trapped in a car or rappelling into a ravine). The current Med-Response model also relies on the RCMP for a level of incident management and coordination, even in instances where known-location medical incidents fall outside the core policing mandate of the policing contract.

One potential option to expand the capabilities of the Med-Response program would be to partner with the Yellowknife Airport firefighters to deploy on calls where a rescue capability is required. This would require a partnership with the Department of Infrastructure as the employer of the firefighters. As part of this option, the Yellowknife Airport firefighters would need to receive adequate training and equipment to perform rescue duties including meeting relevant standards such as NFPA 1006 and NFPA 1670. The firefighters could then deploy as an additional resource on an on-call basis when rescue capabilities are needed. Using an on-call model would still enable the airport to meet regulatory requirements for their staffing and operation.

The Med-Response program could also build additional capacity by looking at options to take over all incident management responsibilities once an incident is identified as falling within the scope of a known-location medical incident. This may involve hiring additional staffing and conducting additional training on incident management.

Recommendation #9: Provide Access to Central Counselling Resources

The EMO should take the lead in establishing centralized access to counselling resources for local volunteer SAR teams. This could include services provided remotely via phone or virtual meetings, or in-person where community resources are present. Currently, small communities with less-developed SAR teams need access to a resource where they can debrief and work through their emotions after a difficult incident. Often, volunteers in small communities are close to the missing person and may be put in a position where they participate in an unsuccessful search or where the search results in a body recovery.

There are several potential options for implementing this recommendation. One option could include adding SAR team members to an existing employee assistance plan (EAP), like Newfoundland and Labrador where NLSARA provides access to their provincial EAP. Alternately, a successful model could potentially incorporate Elders from a community or surrounding communities who lead post-incident conversations. Regardless of the model chosen, the resources that are provided must be culturally appropriate and relevant to the communities in the NWT.

Recommendation #10: Develop a SAR Reference Guide for the Northwest Territories

The EMO should develop a SAR reference guide for the NWT SAR system outlining the jurisdictions over SAR, tasking protocols for volunteer SAR teams, roles and responsibilities of the key organizations involved in SAR, and other related processes such as expense reimbursement. The guide should be distributed to all SAR service delivery organizations in the territory including volunteer SAR teams, the RCMP, CCGA, and CASARA. The guide should be a collaborative effort across all SAR agencies,

confirming the roles and responsibilities outlined with each agency described. The guide should be revisited and updated on a set schedule of every five years to reflect the most current information.

The goal of developing this guide is to support a whole system understanding of SAR in the NWT across all organizations involved. The guide will serve as a clear reference point for volunteer SAR teams and also enable each organization to understand where they fit into the larger picture and how they can better interact and cooperate as part of the SAR system.

We recommend the SAR reference guide include the following:

- An overview of the SAR response process including SAR incident types, the authorities having jurisdiction over various incident types and locations, and agencies involved in incident response
- Overview of incident command structure for SAR incident response
- Roles and responsibilities of each agency or organization involved in SAR incident response in the NWT
- Tasking protocols for each secondary agency response (e.g., Volunteer SAR teams, CASARA, CCGA, etc.)
- Reimbursement process and coverage details for incident-related expenses and equipment
- Details on insurance provided or available when tasked or part of a volunteer SAR team

Recommendation #11: Facilitate the Purchase of GPS Units as a SAR Prevention Strategy

The EMO should establish and oversee a program to fund the purchase of GPS units for use by local community members. This program could be implemented in several ways. One option would be to distribute GPS devices to each community where they would be available for sign-out at no cost on a loan program when community members go out on the land. Another implementation option would be to encourage the purchase of GPS devices by individual community members by offering a subsidy toward the purchase of a GPS device. While the EMO should be responsible for implementing and leading this program, it is likely that this program could qualify for outside funding from sources such as SAR NIF.

Stakeholder consultation provided evidence of limited use of GPS device loan programs in the NWT but based on feedback from other jurisdictions there is significant value in expanding the use of GPS devices at the community level. SAR incident prevention is regarded as one of the most cost-effective approaches to addressing SAR incidents and access to GPS devices was identified as successfully reducing the frequency and duration of searches in other jurisdictions. If a member of the public is stranded or injured, a GPS device prevents a search from being necessary and enables an efficient recovery of the individual using minimal resources.

Recommendation #12: Promote Safe Outdoor Practices through School Programming

We recommend implementing public education programming throughout NWT schools that promotes safe outdoor practices. This recommendation should be implemented in collaboration between the EMO, schools, and volunteer SAR groups. Public education on safe outdoor practices is a cost-effective approach that will lead to fewer SAR incidents over the long-term, and better outcomes when a SAR incident occurs. In addition to partnering with volunteer SAR teams, public education programming could include partnerships with elders or members of the local Hunters and Trappers organizations to incorporate the local knowledge of the land and increase the cultural awareness of the programming.

Several public education curriculums and resources exist which could be adopted to reduce the effort associated with implementing this recommendation. For example, AdventureSmart is a national prevention program funded by Public Safety Canada. Their curriculum options include the *Hug-a-Tree and Survive* program which helps children survive outdoors, be found more easily, and prevent becoming lost. This curriculum could be used to deliver presentations at the school level and build a greater knowledge and awareness of the best response to being lost outdoors from a young age.

Summary of Recommendations

The table below provides a summary of all recommendations including the agency responsible for leading implementation and estimated costs associated with the recommendation. The estimated costs represent an order of magnitude and will be subject to verification as more detailed implementation plans are developed.

Table 12: Summary of Recommendations

Number	Recommendations	Who is Responsible	Implementation Cost	Annual Cost	Notes
1	Provide EMO with Mandate for SAR	GNWT / EMO	\$-	\$200,000	Assumes hiring 2 additional staff
2	Assess Current RCMP Mandate	RCMP	\$-	\$ -	
3	Clarify SAR Roles and Responsibilities Through a MOU	RCMP / EMO	\$10,000	\$ -	Legal costs
4	Provide Funding to Volunteer SAR Teams	EMO	\$-	\$360,000	Assumes volunteer SAR teams in 15 communities. Stakeholders estimated approx. 10 – 15 communities would take advantage of this funding.

Number	Recommendations	Who is Responsible	Implementation Cost	Annual Cost	Notes
5	Work with Volunteer SAR Teams to Meet Recognized Training Standards	EMO	\$-	\$-	Included in above costs
6	Establish Regular Meetings Between SAR Partners	EMO	\$-	\$10,000	Travel / venue costs
7	Utilize SAR NIF Program to Fund SAR Improvements	EMO / Volunteer SAR Teams	\$-	\$-	Implement using salaries in Recommendation 1
8	Investigate Available Options to Expand Med-Response Capabilities	NTHSSA	\$20,000	\$40,000	Projected cost of using YK firefighters to fill this role
9	Provide Access to Central Counselling Resources	EMO	\$-	\$20,000	Add Volunteer SAR groups to provincial EAP plan
10	Develop a SAR Reference Guide for the Northwest Territories	RCMP	\$-	\$-	Completed by employees on staff
11	Facilitate the Purchase of GPS Units as a SAR Prevention Strategy	EMO	\$-	\$50,000	Approx. 75 Garmin inReach devices annually
12	Promote Safe Outdoor Practices through School Programming	EMO	\$-	\$30,000	Coordinated by EMO with funding used for outside facilitators
Total			\$30,000	\$710,000	

Future State Model

The recommendations in this report are a roadmap to achieve the future state SAR model in the NWT. The future state will incorporate an active role for the EMO with responsibility for training, equipping, and building capacity within volunteer SAR teams and communities interested in forming volunteer SAR

teams. A focus on prevention activities including safe outdoor practices and making GPS devices more accessible to the public, will contribute to reducing the frequency and duration of SAR incidents. The future state will also incorporate more regular collaboration and communication that is led by the EMO and planned separately from communications during an incident response. The core RCMP mandate will remain the same in the future state, however, the development of greater local SAR capacity will lead to a decreased reliance on RCMP involvement beyond their core mandate of incident command and search management functions. Similarly, volunteer SAR groups will retain the same mandate in the future state but will be better able to train and conduct search activities safely with the appropriate training and equipment to carry out their tasks. The role of CASARA and federal agencies including the CAF, RCAF, CCG, and CCGA will not change in the future state model. The table below provides a summary of the governance, roles and responsibilities, and coordination elements of the future state model.

Table 13: Future State Model for RCMP, EMO, and Volunteer Groups in the NWT

	RCMP	EMO	Volunteer SAR Groups
Governance	Jurisdiction for GSAR incident command delegated from GNWT to the RCMP	EMO accepts all other territorial SAR responsibilities including training, funding, prevention activities, certification standards, and capacity building.	Operate under the authority of the RCMP when tasked in response to GSAR incidents.
Roles and Responsibilities	<ul style="list-style-type: none"> • Incident command of GSAR incidents • Search management of GSAR incidents in cooperation with volunteer SAR groups • Responsible for investigating lost and missing person reports • Issue tasking numbers • Reimburse volunteer expenses incurred in a search (e.g., gas) 	<ul style="list-style-type: none"> • Build capacity to effectively conduct SAR at a community level • Fund training, equipment, and operating costs for local SAR teams • Conduct prevention activities to reduce the number and severity of SAR incidents • Oversee the development and implementation of SAR standards and certifications • Support greater use of SAR NIF grants in the NWT 	<ul style="list-style-type: none"> • Train and maintain readiness for SAR incidents • Mobilize in response to SAR incidents when tasked by the RCMP • Search management of GSAR incidents in cooperation with the RCMP

		<ul style="list-style-type: none"> • Lead coordination and communication efforts between territorial SAR partners on a regular basis • Actively represent the NWT on a national level including at SARVAC and Public Safety Canada • Maintain an updated SAR reference guide for use by all NWT SAR partners 	
Coordination	<ul style="list-style-type: none"> • MOU with EMO • Participate in communication with SAR partners • Lead coordination of agencies responding to GSAR incidents including the rental of aircraft, and requests to partners such as volunteer SAR groups or the RCAF • Lead communication with family of the missing during an incident 	<ul style="list-style-type: none"> • MOU with RCMP • Lead regular communication forums with NWT SAR partners • Responsible for assisting with the development of local SAR teams including raising awareness of the resources available to interested groups 	<ul style="list-style-type: none"> • Obtain tasking numbers from RCMP • Maintain regular communication with the RCMP and operate under their command during SAR incidents

The table below provides a comparison of the current state and future states of SAR in the NWT in key categories which were evaluated in the jurisdictional scan section of this report.

Table 14: Comparison of SAR Current and Future States in the NWT

	NWT Current State	NWT Future State
Authority having jurisdiction (AHJ) for Aeronautical SAR	RCAF	RCAF
AHJ for Maritime SAR	CCG	CCG
AHJ for GSAR including inland waterways	RCMP	RCMP
Agency providing SAR incident management	RCMP	RCMP

Agency that issues tasking numbers to volunteer SAR teams	RCMP	RCMP
Agency responsible for training and equipping SAR volunteers	None	EMO
Use of MOU to clarify roles	No	Yes. Between RCMP and EMO.
SAR Training Provided by Province / Territory	None	Yes, funding provided by EMO
SAR Equipment Provided by Province / Territory	None	Yes, funding provided by EMO

Appendix A – Stakeholder Question Guide

During the stakeholder interviews, we used a consistent set of questions to guide the conversation. We have included these questions below for reference. Based on the conversations that resulted, we probed for additional details and clarification where necessary.

1. What is your current role and area of responsibility in your organization?
 - Other areas of work experience
2. What is your organization’s mandate and what do they do?
3. How is your organization involved in Search and Rescue activities or incidents in the Northwest Territories?
 - Search and Rescue Service Provider - Incident response
 - Training
 - Recipient or client of Search and Rescue services from others
 - Other
4. Please describe the current Search and Rescue System in the Northwest Territories from your perspective.
 - Governance structure and decision making
 - Funding model
 - Communities’ role
 - Service delivery
5. Have there been any recent changes to the Search and Rescue system that affected how search and rescue services are provided in the Northwest Territories? What do the impacts look like? What effects are they having?
 - Technology, training, equipment, process, policy, resources, structure, etc.
6. Have there been recent changes or emerging trends in the environment in which operations occur that have changed how Search and Rescue is conducted in the Northwest Territories? What do the impacts look like? What effects are they having?
 - Demographics, legislation, climate, infrastructure, etc.
 - Service demand
7. What are the challenges the current Search and Rescue model faces in the Northwest Territories?
 - Training, equipment, technology, funding resources, people resources
 - Roles and responsibilities within the system
 - Coordination and interoperability between partners

- Ensuring adequate safety for the public
 - Geography
 - Legislative limitations
8. Are there other potential opportunities to address the challenges, if any?
- Technology
 - Funding opportunities
 - Communications
9. What are the strengths of the current model that can be used in pursuit of opportunities?
- Are there existing services or organizations that present leverage opportunity to improve overall operation and services provided to the communities?
 - Are there existing relationships with other organizations that present an opportunity to improve overall operation and services provided to the community?
10. Are there Search and Rescue models in other jurisdictions that you feel are valuable for us to investigate in this review?
- Where?
 - What do you like about them?
 - Could you connect us with someone in the jurisdiction?
11. Do you have any data sets, previous reviews, or existing analysis that you know of that would be valuable to this study?
12. What do you hope to see as a result of this review?
13. Is there anything else that is important for us to understand as we complete this review?



Thank you



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