



# PUBLIC INQUIRY RESPECTING GROUND SEARCH AND RESCUE FOR LOST AND MISSING PERSONS



James J. Igloliorte  
Commissioner

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Prepared by: Richard Smith  
Search and Rescue Consultant

## **ABSTRACT**

*The primary concept of search and rescue (SAR) services incorporates the definition of interoperability. Coordination, interactivity, interface, interchange and cooperation are essential between multiple agencies and multiple jurisdictions during critical incidents, but are often more than just coercion under stress when SAR missions occur. Prerequisites in education and training mean that voluntary ground SAR organizations are proficient, competent and creditable SAR providers, workers and responders. Fulltime SAR responders are able to cooperate with volunteer ground SAR groups in SAR services and missions as both organizations have similar education, training and knowledge to provide SAR services. This interoperability derives from a community-focused attitude and philosophy in life and work in Newfoundland and Labrador. One of Newfoundland and Labrador's greatest assets are the people who dedicate their lives to saving others. "These Things We do, That Others May Live" This Motto has been born through the small outposts, settlements, towns and ports by a harsh environment, hard work, toil and effort in real life. This practical interoperability is the basis for organization, attitude and philosophy, resulting in extraordinary inter-jurisdictional and multi-agency coordination with a community-based focus.*

*This paper concerns organized participation in search and rescue missions and services in Newfoundland and Labrador by both fulltime and volunteer ground search and rescue organizations.*

*Newfoundland and Labrador search and rescue services are carried out through interoperability between government agencies, voluntary organizations and private companies who have resources appropriate for search and rescue services.*

**Keywords** – *interoperability, search and rescue, ground search and rescue, volunteer participation.*

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## BACKGROUND TO THIS DISCUSSION PAPER

The Public Inquiry Respecting Ground Search and Rescue for Lost and Missing Persons (the “Inquiry”) was established by Terms of Reference Ordered by the Government of Newfoundland and Labrador on January 14, 2021, in accordance with Part 2 of the *Public Inquiries Act, 2006*, SNL 2006, c.P-38.1. Retired Provincial Court Judge, James Igloliorte, was appointed Commissioner.

The Inquiry’s Terms of Reference direct it to prepare a final report, which shall:

- Review the organization and operation of ground search and rescue in the Province including air support for ground search and rescue; and
- Make recommendations that the Commissioner considers necessary and advisable related to ground search and rescue in the Province.

The Inquiry believes that, as a foundation for its work, it is important to understand how ground search and rescue presently operates in Newfoundland and Labrador. It therefore, in its Rules of Procedure, states the following:

11. *The Inquiry will be conducted in stages. The first stage will involve the preparation and distribution of a draft discussion paper on the organization and operation of ground search and rescue in the Province. The discussion paper will describe how ground search and rescue is conducted in the province and also describe the organizations that conduct, fund and otherwise participate in ground search and rescue.*
12. *The draft discussion paper will be posted to the website of the Inquiry. The Commissioner will subsequently invite individuals and entities who are involved with or have an interest in how ground search and rescue is conducted in the Province to provide comments upon the draft discussion paper. This discussion paper will not address the shortcomings or the strengths of ground search and rescue and individuals or entities providing comments upon the draft discussion paper should limit their comments to the contents of the paper (the Inquiry will provide the opportunity to make recommendations to improve ground search and rescue in other stages). Any comment which addresses recommendations or other matters not relevant to the discussion paper may not be considered in the preparation of the final draft of the discussion paper.*
13. *The Inquiry will consider the input and comments received from individuals and entities regarding the draft discussion paper. Subsequently, the Inquiry will prepare a final draft of the discussion paper and the paper will be posted to the website. The discussion paper will be relied upon by the Commissioner during the conduct of roundtables and also in other stages of the Inquiry, including the final report.*

The Inquiry has retained Mr. Richard Smith, an expert in search and rescue and the author of this paper, to advise it on key aspects of its Terms of Reference. As a subject matter expert, he has over 40 years of experience in the fields of law enforcement, public safety, and emergency management. Among his responsibilities will be the preparation of the “discussion paper” referenced above.

This paper is based on research which includes an extensive outreach to members of the Newfoundland and Labrador ground search and rescue community, including utilizing a series of structured questions, which were answered through online engagement (survey provided on the Inquiry website), Zoom, and telephone interviews.

## **1. INTRODUCTION**

Search and Rescue can best be defined as “finding and aiding people in distress– relieving trauma and suffering”. SAR involves a great many SAR providers, responders and workers from any number of agencies, both volunteer and government, and includes a number of specialized skills. The eruption of Mount St. Helens was considered one of the world’s most catastrophic disasters as well as being one of the largest peacetime search and rescue operations in the United States. SAR is the backbone of emergency management and saving lives takes priority over all other government activities.

## **2. DEFINING INTEROPERABILITY**

The State of Washington seeks to enhance interoperability statewide. The State Interoperability Executive Committee (SIEC), established by the legislature in 2003, works to assist emergency responder agencies (police, fire, sheriff, medical, hazmat, etc.) at all levels of government (city, county, state, tribal, federal) to define interoperability for their local region.

Washington recognizes that collaborating on system design and development for wireless radio systems enables emergency responder agencies to efficiently provide additional services, increase interoperability, and reduce long-term costs.

This work saves the lives of emergency personnel and the citizens they serve. (State of Washington)

Presently in Canada there are no provincial jurisdictions that legislate interoperability to emergency service’s personnel.

## **3. WHAT IS SEARCH AND RESCUE (SAR)?**

Search and rescue (SAR) systems provide the response for overdue, lost, injured, or stranded persons, and are commonly associated with outdoor activities, and outdoor or “wilderness” environments. SAR is also an extremely important part of every disaster, fire service, law enforcement and emergency medical services (EMS) emergency response. Search and rescue programs, equipment and personnel vary geographically in accordance to local needs and available resources.

SAR is the searching for or rescue of any person(s) who becomes lost, injured, or killed while in the out-of-doors, or as a result of a natural or man–caused disaster. SAR operations provide benefit to community emergency management programs as the training ground and experience building for disaster response capability. SAR missions can happen anywhere and in any hostile environment. Even urban areas can become isolated

and without emergency services during disasters and major storms. Search and rescue techniques have application to any emergency. (LaValla, 2018)

### **3.1 Search Versus Rescue**

The term “search and rescue” denotes two separate functions. Searching for a missing subject(s) has developed into a sophisticated process involving investigative techniques, statistics, probability theory, human behavior, interviewing, terrain evaluation, and quick application of hasty<sup>1</sup> search tactics. Rescue utilizes proven procedures along with a high degree of technical skill for victim retrieval. With known victims in known locations, the principle problem involves devising the most expedient method of removing that individual from danger to a place of safety and providing medical aid as appropriate.

Experienced search and rescue managers in consultation with other members of the overhead team (operations, planning) will determine through investigation whether the incident is a search or a rescue situation. Searches often result in the rescue of an individual or persons, but that is usually not known until the subject(s) are located. Ground search and rescue works to solve the un-solved mystery, as you never know what you have until the missing, overdue, lost person(s) are found.

## **4. SEARCH AND RESCUE IN CANADA: AN OVERVIEW**

### **4.1 National Search and Rescue Program**

There are many agencies and organizations involved in SAR in Canada, searching for lost and missing subject on the oceans, inland waters, and on land. Each type of SAR incident falls under the mandate of one of a number of different agencies. There is, however, a National Search and Rescue Program that helps to provide coordination and cooperation on a national basis.

The objectives of the National SAR Program are: save lives throughout Canada’s jurisdictional areas; promote the prevention or mitigation of SAR events, injury, and loss of life; and, perform all SAR functions effectively, efficiently, and economically. (Government of Canada, 2013)

In 1986, the Federal Cabinet, acting on one of the recommendations of the Ocean Ranger Commission Report, directed that a National Search and Rescue Program (NSP) be established and managed as a distinct program of government, with overall policy responsibility for SAR resting with the Lead Minister, whose role would be to formulate national policy with all involved ministers. The Minister of National Defence was

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<sup>1</sup> A Hasty Team is a fast systematic response to high probability areas using immediate available trained resources.



established as the Lead Minister, and was delegated the authority, responsibility, and accountability for the NSP coordination.

The National Search and Rescue Secretariat (NSS) was established to provide direct, independent support to the Lead Minister, and be responsible and accountable for the conduct of the NSP. In 2016, the National Search and Rescue Secretariat came under the authority of Public Safety Canada. The role of Lead Minister for SAR has since been suspended.

#### **4.2 Federal Responsibilities**

The NSP encompasses cross government efforts and activities, corporate and volunteer sectors, and a variety of organizations and programs related to providing information, applying technology, conducting research and SAR prevention. Within the Federal Government, seven departments and one agency are directly involved in the coordination of programs related to SAR:

- Environment Canada – Meteorological Service of Canada;
- Department of Fisheries and Oceans– Canadian Coast Guard;
- Department of National Defence–Canadian Forces;
- Public Safety
- Royal Canadian Mounted Police;
- Transport Canada; and,
- Parks Canada.

In Canada, the provision of aeronautical SAR and maritime SAR services is a federal government mandate. Aeronautical SAR is defined as an incident involving an aircraft, whereas a maritime SAR is an incident involving a vessel or a person from a vessel, including the medical evacuation of a person(s) from a vessel. The Canadian Coast Guard (CCG) is responsible for maritime SAR services in Canadian coastal waters and the Great Lakes (including the St. Lawrence Seaway). The CCG also provides funding to the Canadian Coast Guard Auxiliary (CCGA) through a contribution program to support their provision of strategically located, trained, and qualified volunteer members and vessels that are prepared and available to support CCG search and rescue activities.

The Canadian Armed Forces (CAF) has the primary responsibility for the provision of aeronautical SAR services and effective operation of the coordinated aeronautical and maritime SAR system. Though not formally assigned a GSAR mandate, the Canadian Rangers, a reserve component of the Canadian Forces, are often called upon to assist responsible authorities in GSAR operations. The DND/CAF provides funding to the Civil Air Search and Rescue Association (CASARA) through a contribution program; and is responsible for establishing standards for CASARA members and monitoring to ensure CASARA volunteers meet those standards.

Despite the formal division of responsibilities, the CAF and the CCG coordinate closely in the provision of aeronautical and maritime SAR services through the Joint Rescue Coordination Centres (JRCCs). These centres are staffed 24 hours a day by CAF and CCG personnel. In addition, the CCG operates a Maritime Rescue Sub-centre (MRSC) in St. John's, Newfoundland to coordinate local maritime SAR operations. Searches can involve volunteer ground SAR teams as well.

CAF and CCG resources, when and where available, can be called upon to assist in the prosecution of ground SAR and humanitarian SAR incidents (not considered aeronautical or maritime), in support of a province or territory, which occur within provincial or territorial areas of responsibility.

Parks Canada coordinates GSAR limited to Lost, Overdue, and Injured person incidents in Canada's National Parks and other land it manages (whereas the police coordinate missing person incidents).

#### **4.3 Provincial and Territorial Responsibilities**

Ground search and rescue searches for lost and missing persons, and walkaways from downed aircraft are the responsibility of the individual provinces and territories, coordinated by the police service of jurisdiction (the Royal Canadian Mounted Police, Ontario Provincial Police, Surete du Quebec, the Royal Newfoundland Constabulary, or the municipal police service). All ground search and rescue teams work for the police service of jurisdiction. All additional resources regardless whether they are Federal, Provincial or local work under the command and control of the police agency having jurisdiction.

While GSAR remains the responsibility of the police service of jurisdiction, in most areas local volunteer SAR teams have been established with many specializing in tracking, canine search, equestrian search, dive recovery, white water aquatic rescue, mountain rescue, cave rescue, and other disciplines. No matter what the discipline, volunteer SAR teams are an invaluable resource, as they combine local knowledge with local resources, expertise, and enthusiasm.

Police services, especially in rural areas of Canada, do not always have the resources of equipment and trained personnel to conduct urgent, cost-effective searches. Based on the resource requirements of search and rescue operations, police services rely on trained Ground Search and Rescue Teams to conduct searches.

Most provinces and territories have provincial organizations, which help to coordinate with the many SAR teams and tasking agency's standards and training.

#### **4.4 Federal Funding of SAR**

The Federal Government established the Search and Rescue New Initiatives Fund (SAR NIF) in 1988 to provide funding for new search and rescue initiatives that will improve the NSP in Canada. The NIF, which is a contribution program, has an annual budget allocation of \$7.6 million, and as of 2017 has funded over 880 projects totaling over \$200 million.

The NIF objectives are: the enhancement of SAR activities by federal and provincial/territorial organizations with specific jurisdictional responsibilities; the promotion and support of other projects designed to further the objectives of the NSP; and the communication of SAR “best practices” to all parties involved in SAR in Canada. There is no specific funding allocation per province each year, with ground search and rescue groups and other agencies submitting applications to a national committee for approval.

#### **4.5 Components of a Search and Rescue Program**

Historically the characteristics of search and rescue programs developed from past and present emergency management components. (Prevention, Mitigation, Preparedness, Response and Recovery) The emergency management components derived from the old Civil Defence strategies have traditionally been utilized and implemented during disaster response. Over the course of many years it was determined that the original components did not fit the concerns for search and rescue.

The old system was more of a reactionary approach and focused more on response and often resulted in multi-agencies from multi-jurisdictions acting independently of each other.

That focus led to groups and organizations not playing in the sand box together but unintentionally being siloed from each other during the response.

In 2016 Public Safety Canada proposed a new and resilient approach which included three main themes. Each theme would enhance search and rescue capacity and capability in their respective provinces.

#### **4.6 Strong Relationships**

To continually advance SAR service delivery, it is necessary to form partnerships and build networks that are multi-sectoral and inter-disciplinary, as well as innovative. To achieve this requires collaboration and coordination to better leverage SAR resources and assets.

#### **4.7 Empowered Individuals & Communities**

To promote self-reliance and local action, individuals and communities must be empowered to manage their own risks. To achieve this requires: sharing tools, systems and leading practices; communicating information regarding hazards and risks; and understanding barriers to adaptation. Risk assessment tools like the BC RAdEMS used by ground search and rescue teams in British Columbia are very useful in risk management. SAR GAR (Green, Amber, Red), PAR (Personnel Accountability Report) and LCES Lookout, Communications, Escape Route, Safety Zone have all been used by search and rescue safety officers for risk management during search and rescue missions. Risk assessment worksheets promote and address risks during operational missions.

#### **4.8 Knowledge & Innovation**

To build knowledge and support innovative approaches to complex problems requires understanding the consequences of risks, hazards and vulnerabilities. To achieve this requires: focusing on the reduction of the underlying causes of SAR activities; creating common approaches for assessment and analysis; and prioritizing risks to inform decisions.

Resilience is the culminating outcome of the three foundational themes as each contributes to helping individuals and communities mitigate, respond and adapt to changing risks and hazards. The proposed new approach was not officially adopted by participates or governing bodies in search and rescue but does form a foundation in which to move forward. (Public Safety Canada, 2016)

#### **4.9 SAR Program Development**

A modern, progressive and proactive SAR program includes many elements that are correlated together to form the basis of a search and rescue preplan. If completed properly, the document will form the foundation for: mitigation efforts to prevent SAR problems; preplanning and training activities; response standard operating procedures and resource allocation; rescue and recovery procedures; and identification of resources.

The development of preplans, whether standard operating procedures or field operating guides are the backbone, not only of emergency management, but the foundation for response to SAR incidents. Tasking and mandated agencies have by contractual obligations, robust policy and procedures for the response to search and rescue missions. Ground search and rescue requires that all dedicated agencies, whether assisting or cooperating agencies, have preplans for their respective SAR response. It is incumbent that everyone involved in the search and rescue process clearly understand who is primary, secondary or tertiary to the search and rescue incident.

Volunteer Ground Search and Rescue organizations and agencies having jurisdiction can eliminate ambiguity of authority under stress during critical incidents, if preplans are written with all stakeholders participating in their development.

## 5. SEARCH AND RESCUE IN NEWFOUNDLAND AND LABRADOR

### 5.1 Environmental Considerations

#### 5.1.1 Geography

Newfoundland and Labrador is the most easterly province in Canada, and is at the north-eastern corner of North America. The Strait of Belle Isle separates the province into two geographical areas: Labrador, which is part of mainland Canada, and Newfoundland, an island in the Atlantic Ocean. Within the province of Newfoundland and Labrador there are over 7,000 small islands.

Newfoundland is roughly triangular in shape geographically. Each side is about 400 km long, and its area is 108,860 km.<sup>2</sup> Newfoundland and its neighbouring small islands have an area of 111,390 km.<sup>2</sup> Newfoundland extends between latitudes 46°36'N and 51°38'N.

Labrador is also roughly triangular in shape geographically: the western part of its border with Quebec forms the drainage divide of the Labrador Peninsula. Lands drained by rivers that flow into the Atlantic Ocean are part of Labrador, and the remainder belong to the province of Quebec. The majority of Labrador's southern boundary with Quebec follows the 52nd parallel of latitude. Labrador's extreme northern tip, at 60°22'N, shares a short border with Nunavut on Killiniq Island. Labrador's area from a geographical perspective (including associated small islands) is 294,330 km<sup>2</sup>. The province of Newfoundland and Labrador forms 4.06% of Canada's land mass, with a total area of 405,720 km<sup>2</sup> (Government of Newfoundland and Labrador, 2021)

The terrain and topography of Newfoundland and Labrador form the basis of complexity analysis factors when responding to and engaging in search and rescue missions. The wide variety of geography from the Avalon Peninsula to the Torngats Mountains of Labrador, combined with sudden severe weather, present some of the most challenging conditions in which to operate search and rescue missions.

#### 5.1.2 Climate

Newfoundland and Labrador has wide-ranging climate and weather due to its geographical location. The province has six climate types; from the polar tundra and sub-arctic climate of Labrador to the humid continental climate of Newfoundland. The sea greatly influences climate due to the fact that no part of the island is greater than 100 km from the ocean. Temperatures range significantly in both summer and winter from the maritime influence. (Government of Newfoundland and Labrador, 2021)

## 5.2 History of Search and Rescue in Newfoundland and Labrador

Volunteer Search and Rescue in Newfoundland and Labrador has been around for many years in Indigenous communities and the outposts that were established with the arrival of Europeans in 1497. People have always risen to the occasion to look for community members that had not returned from hunting and fishing trips, or land exploration. In 1729, the Newfoundland Constabulary, one of the oldest police forces in North America, was established by Governor Henry Osborn. With this, a more structured approach to missing persons was established. The Governor created six districts across the island and appointed a constable for each one; by 1732 there were 32 constables. Like their counterparts in Ireland and England, the constables were responsible for missing, overdue and lost persons within their respective districts. The Royal Newfoundland Constabulary, modelled after the Royal Irish Constabulary, was officially formed in 1871 and continued serving communities in public safety.

In 1935, the Newfoundland Rangers were established by the Commission of Government, which saw the creation of 18 detachments; two in Labrador and the rest on the island. The Newfoundland Rangers provided services in rural areas of Newfoundland and Labrador, often being the only government agent, through the Natural Resources Department. By 1936, 72 men were providing community service, which included helping to locate lost or overdue people from local communities. Members would travel by dog sled, patrol boat, and foot which gave them a unique perspective of the land from more remote isolated places in Newfoundland and Labrador. The Royal Canadian Mounted Police (RCMP) arrived in Newfoundland in 1949 with nine RCMP officers. With the disbanding of the Newfoundland Rangers, upon Newfoundland and Labrador entering Confederation, many joined the RCMP. The nine original RCMP officers and the 52 officers from the disbanded Newfoundland Rangers began their law enforcement and public safety duties in remote isolated communities. The duties included search and rescue as the official government agents for Newfoundland and Labrador. (Heritage Newfoundland and Labrador, 2018)

The modern-day advent of search and rescue began in 1972, with more organized and formalized groups of local community search and rescue members, under the then Emergency Measures Organization. Initially, there were 12 to 14 teams. The responsibility for organizing, training and development fell to the Emergency Measures Organization, which also trained community police officers to be the local search and rescue trainers for their groups.

## 5.3 Newfoundland and Labrador Search and Rescue Association

### 5.3.1 History

In 1996, it was felt that there was a lack of provincial coordination among search and rescue groups in Newfoundland and Labrador. A provincial meeting was held between representatives from the search and rescue groups from around the province. As a result of this meeting, in 1996 the Newfoundland and Labrador Search and Rescue Association (NLSARA) was formed.

*After about sixteen months, a meeting was held with MHA Gerald Smith, who initiated a Private Members Bill in the House of Assembly. Through negotiations, the Department of Justice took ownership of the Volunteer Search & Rescue. As a result, with the assistance of the Department of Justice and both Police agencies and the efforts of the Association membership, The Newfoundland & Labrador Search & Rescue Association was incorporated and recognized by the province. (Newfoundland Search and Rescue Association, 2021)*

NLSARA is comprised of 25 teams and over 750 members; there have been as many as 27 teams at one point in history. Through attrition, NLSARA went from a membership of 960 five years ago to 758 in 2021. Members respond to 140 -160 mission a year provincially. The Association Executive consists of a President, a Treasurer, a Secretary, and five directors representing Eastern, Central and Western Newfoundland regions, and Central and Northern Labrador regions.

### 5.3.2 Funding

The Newfoundland and Labrador Search and Rescue Association is incorporated as a non-profit organization and has been granted charitable status by Revenue Canada. NLSARA is part of a national recognized Canadian organization, the Search & Rescue Volunteers Association of Canada (SARVAC). NLSARA receives guidance and support from Public Safety Canada, through the Search and Rescue Volunteer Association of Canada (SARVAC), Public Safety Canada is a Federal governing body for search and rescue nationally.

NLSARA receives direct funding from the provincial government each year. For the last five years, the province has contributed \$75,000.00 annually for operational costs; \$16,000.00 for radio licenses; and for the last 8 years NLSARA has received \$100,000.00 a year for vehicle and water vessel maintenance (training). Members of Newfoundland and Labrador Search and Rescue Association regularly conduct provincial and local fundraising through community and provincial initiatives. This fundraising assists with



operating and administration financial considerations in maintaining a provincial search and rescue association.

### 5.3.3 Mission Statement

*The Newfoundland and Labrador Search and Rescue Association assists GSAR Teams in their efforts to provide a superior and dedicated level of service to the people of Newfoundland & Labrador.*

### 5.3.4 Goals & Objectives

- Promote the development of ground search and rescue programs that are consistent with our “Mission Statement”, constitution/bylaws and volunteer principles.
- Provide responsible representation for Newfoundland & Labrador search and rescue teams at the provincial and federal levels.
- Represent the principles of ground search and rescue with other related responding agencies, media and government agencies/departments.
- Develop and maintain a program of minimum recommended training standards.
- Establish and maintain a provincial pool of instructors and training material for all regions of Newfoundland & Labrador.
- Establish and maintain a method to evaluate and distribute search management materials in Newfoundland & Labrador.
- Establish a vehicle for the regular distribution of information to all NLSARA members (newsletter/bulletin).
- Provide a research, development and assessment capability with regard to relevant aspects of the Ground Search and Rescue Program in Newfoundland & Labrador.
- Develop and maintain a program for Preventative SAR.
- Research and promote effective management procedures for managers of NLSARA search teams.
- Establish a working budget that is consistent with the constitution/bylaws, mission statement and goals and objectives of NLSARA.

- Develop and maintain an Association Website. (Newfoundland Search and Rescue Association, 2021)

### 5.3.5 Insurance

Workers Compensation is provided by the Government of Newfoundland and Labrador through Justice and Public Safety for all members of Newfoundland and Labrador Search and Rescue Association. Workers Compensation provides coverage for all members of NLSARA for search and rescue missions, training, and development related activities. Liability insurance coverage is provided through the government of Newfoundland and Labrador for members of NLSARA. The Search and Rescue Association of Canada provides accidental death and dismemberment (ADA) insurance to all members of Newfoundland and Labrador Search and Rescue Association. With the government of Newfoundland and Labrador funding of liability insurance coverage, workers compensation and the funding by Public Safety Canada through SARVAC of (ADA) insurance, search and rescue responders can commit the many volunteer hours that they do in service to their communities. The provincial governments Employee Assistance Program (EAP) provides financial assistance for SAR members who may require intervention through Critical Incident Stress Management. Search and Rescue organizations and members may also receive the assistance of professional stress injury consultants with the police service of jurisdiction excepting claims from SAR members and organizations.

### 5.3.6 Equipment

Newfoundland and Labrador Search and Rescue Association teams have a wide variety of equipment for performing search and rescue operations within the province of Newfoundland and Labrador. Ground search and rescue teams have standard equipment that is provided through NLSARA. NLSARA ground search and rescue teams that dissolve, with members joining other search and rescue groups or retiring, must return the issued equipment to Newfoundland and Labrador Search and Rescue Association.

Search and rescue equipment can vary from highly technical helicopter sling operations to Global Positioning Systems (GPS). Due to large inland water bodies and the significant coastline, many search and rescue groups have a number of water vessels and hovercrafts for marine applications. Off highway vehicles for both winter and summer missions are multi-purpose vehicles for both passengers and patient transport. Highly dedicated and sophisticated radio and tracking systems enable search and rescue personnel to be tracked

during a mission and indicate the type of coverage that was provided during a search operation.

Communication repeater systems in both VHF and UHF frequencies extend coverage of SAR responders and provide a greater capacity with the range of dedicated radio systems.

Ground search and rescue teams with NLSARA have a number of support vehicles which can be utilized to support search and rescue missions. Command posts provide operational capability for command and control, while specialized cargo trailers help provide logistical support during SAR missions. A diverse and significant number of support vehicles for transporting personnel and equipment to and from incident scenes allows for an increased response during critical incidents.

The Helicopter Flight Rescue System (HFRS), also known as the Helicopter External Transport System (HETS), is a helicopter insertion and extraction tool which, as under the Canadian Aviation Regulations (CARs), is authorized for use in search and rescue. The system is often referred to as "Long Line", "Short Haul", and other terms, and is similar to other helicopter long line systems in use throughout the world. NLSARA, in conjunction with private aircraft operators, can provide a valuable service throughout the province with the utilization of HFRS. In time-critical situations during search and rescue operations, the highly dedicated and trained search and rescue personnel can save lives with this efficient and effective mission-capable system.

From the training and development of HETS technicians to the operations of a wide variety of water vessels and off highway vehicles, Newfoundland and Labrador ground search and rescue personnel spend many hours training for the operation of unique special transport systems. A significant amount of time and funding is required to complete the training and development to maintain competency for complex search and rescue transport.

Helicopters have played a vital role in search and rescue for many years and that continues today. Very few search and rescue missions function without the use of an air asset, and the majority of incidents require the use of rotary wing aircraft. Helicopters are a tremendous yet fragile search and rescue asset. Many SAR personnel have limited contact with helicopters, but must be able to work safely around them at all times. GSAR members and assisting and cooperating personnel must be able to construct a landing zone. Personnel involved in helicopter operations need to know how to be transported in them and basic emergency procedures. Working around all aircraft especially helicopters requires constant vigilance, otherwise serious incidents or injury can result. All search and rescue members, including police, fire and EMS should attend helicopter ground school crew training and practice often in preparing landing zones, loading and unloading equipment (litters) and personnel.

Fixed wing aircraft are also utilized on a number of search and rescue missions throughout the province. Fixed wing assets are generally obtained through the Civil Air Search and

Rescue Association (CASARA) with a number of NLSARA members being trained spotters through CASARA. The Royal Canadian Mounted Police have one fixed wing aircraft in the Province of Newfoundland and Labrador. It's primary function is logistical support to the North Coast of Labrador. Canadian Armed Forces aircraft are available as a humanitarian effort to assist ground search and rescue efforts when all other aircraft have been utilized or deemed not appropriate for the specific mission.

In Newfoundland and Labrador, helicopters are available through Justice and Public Safety, Emergency Services Division (ESD). Regional Emergency Management and Planning Officer are on call 24/7 to assist Police, Fire, EMS, Emergency Management and Search and Rescue. From a resource management perspective, ESD requests for assistance from the Government of Canada for air support for GSAR missions are channeled to the Joint Rescue coordination Center (JRCC) Halifax. JRCC then assess the availability of aircraft from the Canadian Coast Guard. Defence Request for air support (tasking) from the Civil Air Search and Rescue Association (CASARA) are placed through the Provincial Police Force. ESD is unable to task CASARA to support a GSAR mission.

The kind and type of aircraft utilized on search and rescue missions is dependent upon the request from the police service of jurisdiction in consultation with the search and rescue teams operations section chief (SAR manager). Resource management principles dictates that the right resource for the right mission be implemented.

Capability and capacity are the main considerations when working with aircraft in the complex terrain and topography and weather conditions in Newfoundland and Labrador.

NLSARA volunteers contribute substantially throughout the province. The 25 teams participate in over 100 missions a year and provide in excess of 100,000 volunteer hours to the people and province of Newfoundland and Labrador. In addition to search and rescue activities, NLSARA members are involved in emergency management, evacuation management, and assisting law enforcement agencies with evidence and crime scene investigations. They participate in a number of community events involving public safety and security management. Preventive search and rescue programs provide countless hours of training to youth and scouting groups as well as training in schools focusing on ice safety, boating safety, and child survival (Hug a Tree) programs. *Adventure Smart* and *Trip Plan* are nationally recognized programs that have been successfully instructed by NLSARA members.

Through a continuing partnership with Transport Canada's Office of Boating Safety, SAR teams offer safe boating programs, provide courtesy boat inspections and safe boating displays throughout the province. The Association is accredited through the Canadian Power and Sail Squadron to offer boating courses for boaters to qualify for their Operators Competency Card.

The NLSARA is recognized across Canada for its high level of training, expertise, interoperability with the local policing agencies and level of professional services that they provide.

#### **5.4 Gap Analysis and Challenges for Newfoundland Search and Rescue**

The gap analysis process is a broadly used business development and problem-solving technique. Gap analysis can be especially useful when elements of critical allies or stakeholders involved in search and rescue must form a consensus regarding goals and objectives, strategy, tactics, and policy. A gap analysis explores the past, present, and future using a logical decision-making process, structured in a formal meeting or setting.

To complete the gap analysis process for this discussion paper, it was necessary to build a comprehensive questionnaire for both agencies having jurisdiction and ground search and rescue organizations. The questionnaires were differentiated by agencies having command and control to assisting and cooperating agencies.

Tasking and mandated agency personnel with direct responsibility for search and rescue were identified and sent the questionnaire for review in alignment with their respective policy and procedures.

Newfoundland and Labrador Search and Rescue coordinators were identified by region and complexity analysis factors regarding search and rescue missions. Search and rescue coordinators received the questionnaire in advance, with interview timelines structured to meet the requirements of a community volunteer.

Interviews with all participants were conducted via Zoom or telephone. Participants were given the opportunity to forward their answers to the Public Inquiry's legal counsel and were advised that additional responses could be sent by email to the Public Inquiry's interview body.

During the interview process, participants were advised that the goals and objectives of the questionnaire and interview were to gather information and an understanding of search and rescue in the province of Newfoundland and Labrador. Interviewees were advised that at a later date during the Public Inquiry a capability and readiness assessment would be completed and that the round table discussions would facilitate an after-action report or corrective action report.

## 5.5 Training GSAR Volunteers: Criteria and Standards

On April 1, 1995, RCMP national policy established recommended best practices and training material for use in ground search and rescue operations. Prior to publication of that national policy, it was assumed that volunteer search and rescue groups would be trained according to a local standard. Ground search and rescue groups based on local leadership developed or used search and rescue material that was available to them from a wide variety of sources. After April 1, 1995, RCMP policy stated that search and rescue volunteer groups should utilize training material from ERI International, National Association of Search and Rescue (NASAR) or training material that met or exceeded the two previous companies' training requirements.

The National Ground Search and Rescue Council of Canada was established in 1997, but had its earlier beginnings in 1994. The mission of the National Ground SAR council is “to enhance the delivery of Ground Search and Rescue Programs in Canada through coordinated development of GSAR policies and programs”. (1999)

On September 12, 2002, the National Ground SAR Council requested that all provinces and territories agree to adopt a common set of criteria on which to base their standards of ground search and rescue training and proficiency. By recommending this (GSAR) training and proficiency, they hoped to provide the basis of harmonization and, ultimately, the certification of the skills of GSAR workers, providers, and responders across Canada.

The following benefits and recommendations were brought forward in 2002.

- Define GSAR, enable national identity for ground search and rescue;
- Identify necessary common skills, focused training;
- Provide police agencies with the confidence in meeting the Canada Labour Code;
- Permit police and tasking agencies greater freedom in providing cost effective services;
- Permit the mobility of GSAR volunteers (know skills are transferred);
- Enable mutual assistance agreements (know what you're getting);
- Create a national pool of skilled emergency responders;
- Create a large base for corporate, academic, political attention; and
- Precedent for future trans-provincial/territorial discussions and agreements on GSAR.

The RCMP, Ontario Provincial Police, Quebec Provincial Police, Royal Newfoundland Constabulary and Parks Canada supported these criteria and the intended purpose. (Ground Search and Rescue Council of Canada, 2002)

The development of **principles** for National Criteria in ground search and rescue was guided by each province and territory retaining all rights and responsibilities for ground search and rescue within their jurisdictions. Differences in ground search and rescue procedures, equipment, training, or application of skills may occur predominate within the provinces and territories as a result of geography and/or other local realities. These differences are respected by this paper and recognized as equally valid.

Decisions respecting formal recognition of different training or operational procedures are within the purview of the primary authority having jurisdiction.

Outside training programs and courses provided by third parties would be recognized at the discretion of each provincial and territorial jurisdiction. It was established that it is the responsibility of each province and territory to determine the level of standard for ground search and rescue volunteers. The National Criteria for volunteer ground search and rescue also recommended that the command and control, management aspects of a search and rescue mission may want to be maintained by the agency having jurisdiction (AHJ) (Police, Parks, Military, Canadian Coast Guard).

The National Criteria for ground search and rescue in 2002 recommended the composition of three levels of training and development within GSAR: **Basic Search and Rescue Skills, Advanced (team leadership) and SAR Management**. The training criteria represented the basic minimum requirements for a GSAR volunteer and included within the official standard a structure on organization of ground search and rescue volunteers within each level of the training standard. The criteria were developed with the understanding that each province and territory may substitute skills or methods appropriate for the culture or climate, provided they are equated by the AHJ to represent the same level of capability reflected herein. A number of methods could be used to evaluate if the GSAR volunteer was proficient, competent and creditable including a practical demonstration of skills.

In 2012, with the support of the Federal government's SAR New Initiatives Fund (NIF), the Search and Rescue Volunteer Association of Canada (SARVAC) initiated a project to develop national GSAR core competencies as the foundation for the interoperability and portability of GSAR skills within Canada. The goals of the project included:

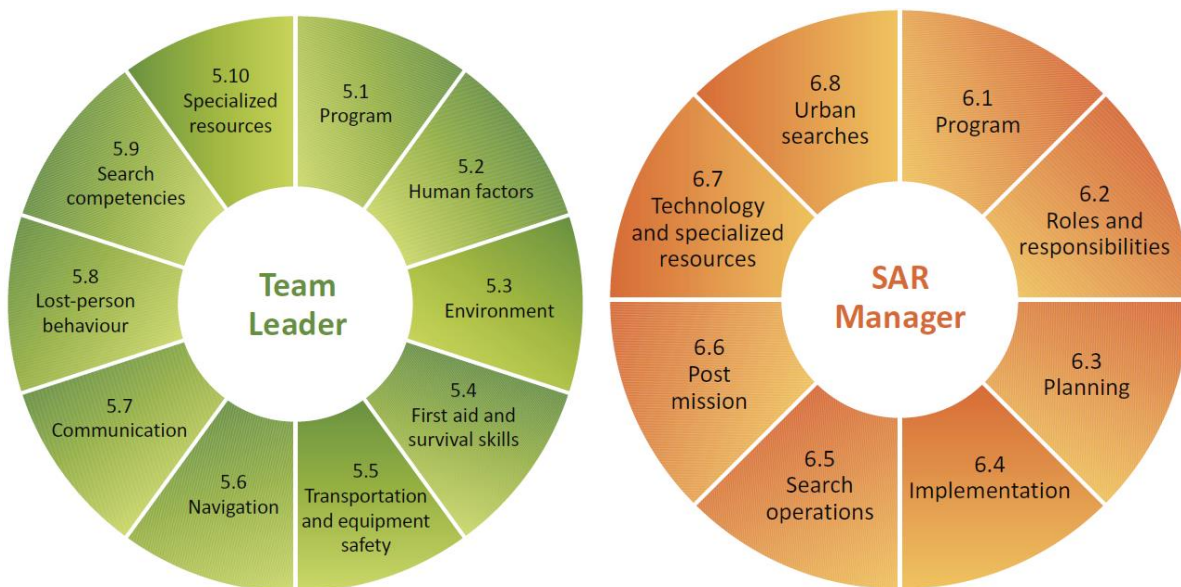
- a) the development of a national set of common skills and competencies;
- b) the interoperability of teams;
- c) the portability of skills across the country;
- d) the economies of scale in the development and delivery of training; and

e) minimizing the duplication of effort.

In 2012, the CSA Group was contracted by SARVAC to undertake a three-phase facilitation, development and consensus of the national training curriculum and core competency standards for ground search and rescue. (CSA Group, 2016) **The CSA Standard for Core Competency was published in May of 2015, Z1620-15 (CSA Group, 2015)The CSA Standard for Training Curriculum was published in July 2016, Z1625-16 (see Figures 1 and 2).**



**Figure 1: SAR Responder Curriculum Standard (CSA Group)**



**Figure 2: SAR Team Leader and SAR Management Curriculum Standard (CSA Group, 2016)**



Trained ground search and rescue volunteer teams represent the largest potential force of efficient, effective and economic low-cost SAR intervention in the province of Newfoundland and Labrador. NLSARA members attend a number of specific SAR training courses throughout their service. Basic search and rescue skills training of approximately 60 hours, SAR leadership training requiring over 24 hours and search and rescue management training exceeding 40 hours to complete. All of the courses meet and exceed the CSA standard and require competency validation annually. In addition to the search and rescue training NLSARA members attend first aid training that often has incorporated into the curriculum a wilderness component. NLSARA members receive training and developed that is consistent with other provincial search and rescue teams across Canada.

Today a wide spectrum of skills and abilities exist within the ground search and rescue volunteer community. Despite the low end of this spectrum where lightly organized, untrained, but highly emotional groups or individuals seek to assist tasking, mandated agencies, there is also a high end. Police officers, Parks and Military personnel have noted that GSAR volunteers in this category are highly skilled and trained in ground search and rescue techniques and play a critical role in GSAR operations.

It must be understood that this wide spectrum of skills in GSAR by local volunteers is recognized in some cases as expertise. In remote isolated areas of the province, the standard training in search and rescue must be modified, adapted and overcome by local education, training and knowledge. Traditional skills of being on the land can play a significant part in the local search and rescue effort. The cross-discipline training in local communities enhances the ability of some GSAR members in their response to critical incidents. GSAR teams located in more remote, isolated parts of the province use the CSA standard as a guide to completing training for their local members.

The Civil Air Search and Rescue Association (CASARA) and the Coast Guard Auxiliary (CCGA) are two organizations comprised of volunteers in the province who have strong connections to their respective Federal bodies (Royal Canadian Air Force, Canadian Coast Guard). Volunteer members of these organizations possess skills and equipment to support their Federal mandated tasking agencies. They also receive sustainable funding and a number of dedicated Federal staff to support their respective volunteer organizations.

## **5.6 Agency Having Jurisdiction**

Newfoundland and Labrador Search and Rescue Association work in conjunction with the authority having jurisdiction (AHJ). Pending location of a search, the AHJ may be the Royal Canadian Mounted Police, Royal Newfoundland Constabulary, Canadian Coast Guard, Parks Canada or the Department of National Defence (Royal Canadian Air Force, Search and Rescue program). They assist the agency having jurisdiction with ground

search and rescue operations, search and rescue missions on inland waters, including coastlines and downed and missing aircraft. The local educational, training, and knowledge of Newfoundland and Labrador Search and Rescue teams greatly enhance the ability of tasking, mandated agencies, (AHJ) to be able to perform their respective functions under national and provincial agreements.

### 5.6.1 Royal Canadian Mounted Police

The RCMP provides police services to parts of the province of Newfoundland and Labrador through policing contracts that are 20 years in length and are reviewed every five years. RCMP responsibilities in GSAR are at the provincial contracted level and it does not act as a national organization for the delivery of GSAR services. As a contracted Federal agency, the RCMP within a specific jurisdiction is guided by both divisional and national SAR policy. There are four components to the RCMP search and rescue program: prevention, response, interdepartmental cooperation, and volunteers. RCMP policy encourages members to be trained in search and rescue skills and promote the use of GSAR volunteers. The RCMP program overall is designed to provide guidance and consistency in the provision of SAR services across the province.

As the tasking, mandated agency, during search and rescue incidents, the RCMP will maintain command and control throughout a search and rescue mission. The RCMP, through contracted agreement with the province, cannot relinquish command and control to ground search and rescue organizations. The RCMP has the final authority to make decisions in SAR operations, and maintains overall authority and responsibility for search and rescue. The RCMP in “B” Division has a provincial search and rescue coordinator who is responsible for the RCMP’s search and rescue program. The coordinator’s roles, responsibilities and duties include: supporting local detachments during search and rescue missions; assisting with the coordination of training and development of RCMP officers in search and rescue; maintaining after action reports from search and rescue missions; and compiling data from the use of GSAR resources and expenses. Specific RCMP forms used on search and rescue missions articulate person hours expended; location of the lost, missing, or overdue subject; distance from point last seen or last know position; condition of the missing person; and kinds and types of resources utilized, to name a few. The search and rescue file information (data) can be an invaluable tool for investigators the next time a person goes missing, lost or overdue in a detachment area. (Royal Canadian Mounted Police, 2019)

### 5.6.2 Royal Newfoundland Constabulary

The Royal Newfoundland Constabulary in the province of Newfoundland and Labrador has jurisdiction in the predominately urban northeast Avalon region; additionally, there are detachments in Corner Brook, Labrador City and Churchill Falls. The larger geographic areas are contracted to the RCMP. The Royal Newfoundland Constabulary has a very keen interest in search and rescue and has had a strong policy and coordination in SAR services for many years. The RNC responsibility primarily involves urban areas, but this does not distract from the fact that there are a number of search and rescue incidents within their jurisdiction every year. Due to a substantial area of responsibility with large diverse demographic base, the RNC has an established search and rescue policy.

A search and rescue coordinator with a number of assistants provide a strong link with police investigators and ground search and rescue members. The RNC, in addition to the SAR coordinator, also provides a Missing Person Coordinator who is assigned to Major Crimes.

RNC and GSAR organization members within their jurisdiction train together, participate in SAR exercises and maintain a very close relationship in the interest of public safety. Through this close association, the RNC has developed a training program (search and rescue) for their RNC Cadets. The Royal Newfoundland Constabulary, through their File Management Unit, maintains a record of all search and rescue missions which can be utilized to assist in new incidents as required. (Royal Newfoundland Constabulary, 2020)

### 5.6.3 Parks Canada

Parks Canada has primary authority and responsibility for lost, overdue or injured person incidents within its jurisdiction and will ensure a response to lost or injured person incidents utilizing Parks Canada, external search and rescue resources or a combination of both. For the purposes of (Parks Canada's) Directive on Visitor Safety, responsibility includes all inland waters and lands within Parks Canada's jurisdiction. This authority is derived from the *Canada National Parks Act*, S.C. 2000, c. 32, s. 8(1). A primary objective of Parks Canada's Visitor Safety program is to minimize the frequency and severity of visitor safety incidents through a visitor safety planning process that involves risk assessment, the elaboration and maintenance of response protocols, and provision of appropriate levels of SAR services in field units. Some of the key principals driving the process include prevention of incidents through information and appropriate control measures, safety, the utilization of the Incident Command System for the management of incident response, and working closely with SAR partners at the local, regional, and national levels. A number of Parks Canada staff are members of their local search and

rescue teams, which builds a strong foundation for SAR response. This is an important concept, as a number of SAR incidents are unified command, involving multi-agencies and can result in being multi-jurisdictional.

## 6. OPERATIONS IN SEARCH AND RESCUE

### 6.1. Sequence of Events

A SAR mission involves a specific sequence of events:

- Search for and find the subject(s);
- Access and reach the subject(s);
- Provide any needed medical aid;
- Evacuate the subject(s).

This forms the basis of the four phases (sequence) of search and rescue (S.A.M.E.).

**Search:** The first, and often the most time and resource consuming phase, is the finding of the subject(s). If the first notice reports provide accurate information as to the last known position or point last seen, and if the missing person(s) has not moved from the reported position or general area, then the search phase may go quickly; but if the location of the missing person(s) is not immediately known, this phase takes much more time. This 'find the subject phase' might last minutes, hours, or days, but must be accomplished prior to the next phase being started.

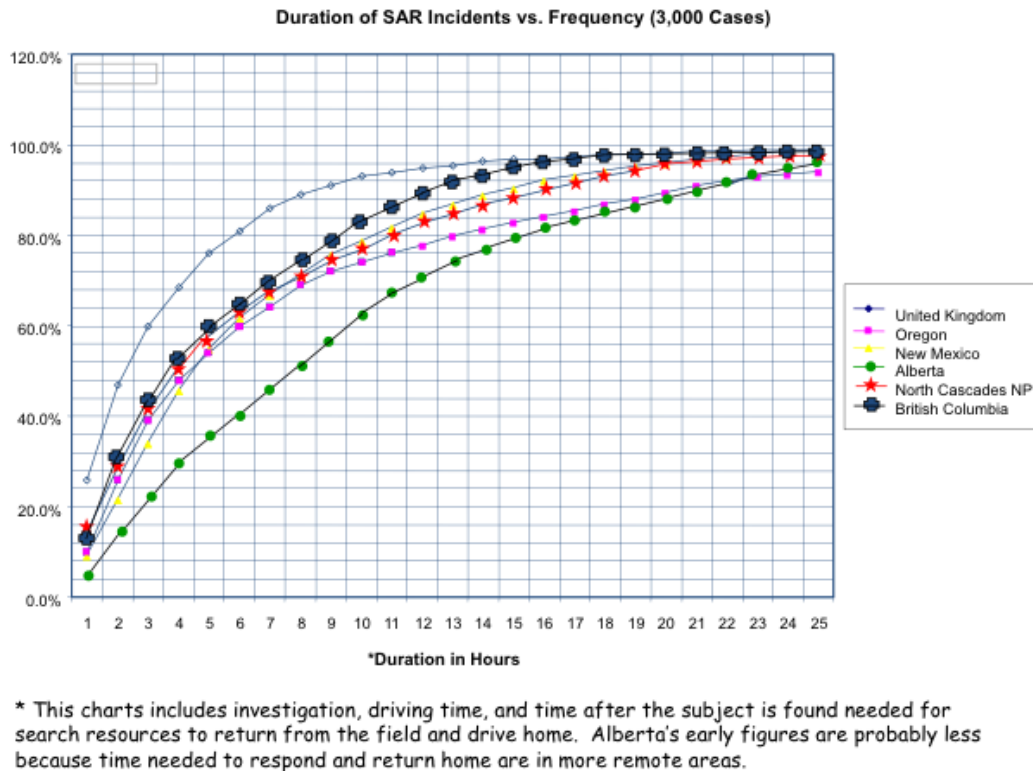
**Access:** The second phase is to actually have rescuers reach or establish contact with the subject(s). Terrain, weather, and environment can complicate this phase. If the subject(s) is found, but is at the bottom of a cliff, or on the other side of a river, or in some other hard to access location, additional technical resources may be needed to reach the subject(s), even though he or she (they) has been found. In many situations, ground response teams without additional specialized training can reach the subject, such as when there is a reasonable walk-around route to reach the subject at the bottom of the cliff.

**Medical:** The third SAR phase involves rendering any medical aid or assistance to the subject(s). This might be as simple as asking if they are 'OK', warming them up so they can assist themselves, providing a splint for a possible fractured limb, or managing major bleeding. Aid may also take the form of protecting the subject(s) from the environment until more medically able personnel arrive. The fourth phase begins once the subject(s) have received aid and is stabilized.

**Evacuate:** Ultimately, the subject(s) needs to be moved. Options include providing enough assistance so that the subject(s) can walk out by themselves or with minimal support,

transporting the subject(s) by litter, or transporting the subject(s) by helicopter or ground vehicle. Factors that determine how a subject(s) is evacuated include: medical needs, environmental challenges, weather conditions, and available resources.

Most missing person incidents are resolved in hours rather than days, with the remaining small percentage expanding into multi-day events. Statistical analysis from Alberta, British Columbia, Washington, New Mexico, Oregon, and the United Kingdom have indicated that the majority of search and rescue missions are concluded within 24 hours. Data hours were from callout to stand down for all SAR teams. Figure 3 indicates the duration of SAR incidents vs. the frequency of cases.



**Figure 3:** The duration of SAR incidents vs. the frequency of cases (LaValla, 2018)

It is important to note that if the lost, missing, or overdue person is not located within 24 hours with highly dedicated, trained resources, then this may be an indication that something is wrong within the response to the search and rescue incident. A thorough and detailed investigation must be completed by the agency having jurisdiction (Police, Parks). Between the AHJ and the ground search and rescue teams, it is all about information flow and coordination.

Management of search and rescue missions over the years have evolved from “head them off at the pass”, or “run by the seat of your pants”, to the very complex understanding of command and control, management, leadership, and how to make decisions under stress

during critical incidents. Lessons learned from after action reports (corrective action reports) over the years have indicated that Incident Commanders, Operations Section Chiefs, and SAR Managers need to perform these functions in a proficient, competent, and credible manner.

## **6.2. The Six Step Process for Incident Management**

The following forms a step-by-step method that is followed by ground search and rescue managers, operational section chiefs and the police to locate lost, missing or overdue person(s). The six-step process is utilized in Newfoundland and Labrador by NLSARA members and agencies having jurisdiction. It is approved for use by the International Association of Chiefs of Police for use in Incident Response.

The process was developed for one person conducting both roles as the Incident Commander and Search and Rescue Manager, or two people working together to bring the incident to a successful conclusion. Hence the term Incident Commander and SAR Manager are synonymous in this context. It is primarily used for the initial response period of a search and rescue mission. Search and Rescue missions that extend beyond the initial response operational period will expand their organizational structure.

### **1. Size-up the Situation: What is the nature of the incident and what are the hazards.**

- Police, Parks, AHJ will interview reporting party directly. They will establish an ongoing communications link with the reporting party or person.
- AHJ will consciously decide whether a response is justified. Is there a lost, missing or overdue person? Which agency has jurisdiction? They will, if appropriate, initiate a response by notifying the reporting party, their supervisor, and agency dispatch.
- AHJ or GSAR will begin compiling a Missing Person Profile lost person occurrence form from the RCMP or RNC.
- AHJ, in consultation with GSAR, will determine response urgency.
- An Incident Commander (IC) will be assigned (Police, Parks). All involved personnel and agency dispatch will be notified.
- Incident Commander, in consultation with GSAR, will determine ending time of first operational period.
- Arrangements will be made for the relief of the Incident Commander for the second operational period.
- Incident Commander will establish a Command Post or Emergency Operations Center. (EOC)
- The AHJ will investigate the Point Last Seen or the Last Known Position. This will then become the Initial Planning Point. (IPP)

## 2. Identify Contingencies.

- AHJ, in consultation with GSAR, will identify and prioritize scenarios that might have caused subject's loss, and his or her possible subsequent activities. Prioritization might be based on:
  - Relative life safety risk;
  - Ease of resolution; and/or
  - Scenario's likelihood.
- GSAR manager will prioritize ranking of the target scenario(s) for resolution.
- GSAR will determine the classification (mobility and responsiveness) of the subject under these targeted scenarios.
- What caused this incident to happen?
- What could make things worse?
- What can I do to be prepared?
- A Risk Assessment will be completed between the AHJ and the Ground SAR Manager.

## 3. Determine Objectives

- GSAR and the AHJ will identify investigative actions to address the targeted scenarios, including the protection/investigation of the Initial Planning Point.
- GSAR establishes search area boundaries:
  - Identify travel aids leading away from the IPP region.
  - Determine theoretical rate of subject's travel along each travel aid. Multiply rate of travel by number of hours since subject became lost, to calculate subject's maximum distance from the IPP. This will be repeated for each travel aid.
  - Consider these maximum distance points as markers for the search area boundary.
- GSAR will identify containment actions to address the targeted scenarios. These will be stated in terms of objective(s). Specific Measurable Action Realistic Time, SMART.
  - For each travel aid, GSAR determine whether to place containment at the search area boundary, or at a strategic passage along the travel aid.
  - GSAR will consider directing resources sweep travel aids enroute to selected containment locations.
- GSAR will identify active search efforts (hasty search) to address the targeted scenarios.  
These will be stated in term of objective(s).

#### **4. Identify Required Resources**

- GSAR will determine tasks and resources needed to achieve all the objectives and contingencies. GSAR will then rank the tasks by importance.
- GSAR, once approved by the AHJ, will order required resources.

#### **5. Build a Plan and a Structure: This involves initial staffing needs and how to organize and deploy resources.**

- AHJ and GSAR will establish an organizational structure that can effectively support the search and rescue effort. This will utilize the incident command system.
- GSAR will develop and implement assignments to support the tasks. Each assignment should pass a risk assessment analysis conducted between GSAR and the AHJ. Assignments will be initiated in a sequence reflecting the task ranking to meet mission goals and objectives.

#### **5. Take Action**

- AHJ and GSAR will brief all arriving personnel. Situation Mission Execution Administration Command, SMEAC.
- AHJ and GSAR will finalize assignments at this time for the resources, including risk assessments associated with the respective assignments. All resources involved in the SAR mission will be briefed before deployment.
- GSAR will track all SAR resources during the mission. The health of personnel involved will also be monitored during operations.
- All resources returning from assignments will be debriefed by GSAR or the AHJ upon returning to the search and rescue base.
- Both GSAR and the AHJ will finalize a new Incident Action Plan for the next Operational Period, should the mission continue.
- If the SAR mission is continuing into another operational period, both GSAR and the AHJ will plan for another overhead team to relieve them. Both organizations will brief the incoming overhead team on the Incident Action Plan and mission status. (LaValla, 2018)

Once the lost, missing, or overdue person(s) is located, the ground search and rescue team will start the six-step process all over again for rescue and evacuation management. During the rescue and recovery operation, all assisting and cooperating agencies coordinate through the agency having jurisdiction. If air or additional marine assets are required, the AHJ will notify the Emergency Services Division of Justice and Public Safety for support.

At the end of the search and rescue mission, and when all resources have returned safely to the Command Post, Emergency Operations Center, there will be a debriefing and critique of the mission overall. Critical Incident Stress Management Procedures are



followed through according to policy of Newfoundland and Labrador Search and Rescue Association.

## **7. CONCLUSION**

In the fall of 2021, following the consultation process from round table discussions, The Public Inquiry Respecting Ground Search and Rescue for Lost and Missing Persons (the “Inquiry”) will compile its findings and continue its exercise to formally define search and rescue within Newfoundland and Labrador. The results will be presented by Commissioner James Igloliorte to the province.

Search and rescue is an evident function of emergency management and, as such, SAR continues to evolve due to various reasons such as advances in technology, urbanization, demographic transitioning, and fluctuating environments due to climate change. There is a need to establish provincial governance and policy framework for SAR, wherein interoperability by all stakeholders is crucial to ensuring the success of efficient, effective, and economic SAR delivery services in Newfoundland and Labrador.

## Appendix A Acronyms

<b>ADA</b>	Accident Death and Dismemberment Insurance
<b>AHJ</b>	Agency Having Jurisdiction
<b>AAR</b>	After Action Review
<b>CCG</b>	Canadian Coast Guard
<b>CISD</b>	Critical Incident Stress Debriefing
<b>CISM</b>	Critical Incident Stress Management
<b>CP</b>	Command Post
<b>CPS</b>	Canadian Park Service
<b>CSA</b>	Canadian Standards Association
<b>CASARA</b>	Civil Air Search and Rescue Association
<b>DFO</b>	Department of Fisheries and Oceans
<b>DND</b>	Department of National Defence
<b>EMA</b>	Emergency Management Agency
<b>EMO</b>	Emergency Measures Organization
<b>EOC</b>	Emergency Operation Centre
<b>ESD</b>	Emergency Services Division
<b>GOST</b>	Goals, Objectives, Strategies, Tactics
<b>GPS</b>	Global Positioning System – unit used to determine location based on satellite reception
<b>GSAR</b>	Ground Search and Rescue
<b>HETS</b>	Helicopter External Transport system
<b>HFRS</b>	Helicopter flight Rescue System
<b>HVA</b>	Hazard Vulnerability Assessment - essential for developing a SAR Program
<b>IAP</b>	Incident Action Plan
<b>IC</b>	Incident Commander
<b>ICS</b>	Incident Command System
<b>IPP</b>	Initial Planning Point – where search effort is started. May or may not be PLS
<b>IMS</b>	Incident Management System
<b>ISA</b>	Initial Search Area
<b>JRCC</b>	Joint Rescue Coordination Centre
<b>LKP</b>	Last Known Position – based on a clue such as vehicle, note etc.
<b>LSC</b>	Logistics Section Chief
<b>MOU</b>	Memorandum of Understanding
<b>NASAR</b>	National Association for Search and Rescue
<b>NLSARA</b>	Newfoundland and Labrador Search and Rescue Association
<b>NSS</b>	National Search and Rescue Secretariat
<b>ORM</b>	Operational Risk Management
<b>OSC</b>	Operations Section Chief
<b>PIO</b>	Public Information Officer
<b>PLS</b>	Point Last Seen – based on an eye witness account
<b>PPE</b>	Personal Protective Equipment – helmets, PFDs, safety glasses etc.
<b>PSAR</b>	Preventative Search and Rescue

**PSC** Planning Section Chief  
**RCC** Rescue Coordination Centre  
**RESTAT** Resource Status Unit – a function within Planning Section that tracks resources.  
**SAME** Search, Access, Medical, Evacuation  
**SAR** Search and Rescue  
**SARMAN** Search and Rescue Manager  
**SARVAC** Search and Rescue Volunteer Association of Canada  
**SCORPA** Size Up; Contingencies; Objectives; Resources; Plan; Action. Also called Six Step Process  
**SIEC** State Interoperability Executive Committee  
**SITSTAT** Situation Status Unit – a function in Planning Section that is responsible for assimilating, organizing, and displaying incident information.  
**SMART** Specific; Measurable; Action Oriented; Realistic; Time Sensitive, objectives  
**SMEAC** Situation, Mission, Execution, Administration, Command and Communications  
**UHF** Ultra High Frequency  
**VHF** Very High Frequency

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