



CANADA'S NATIONAL SEARCH AND RESCUE PROGRAMME: A GOVERNANCE MODEL IN NEED OF RESCUE?

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Exercise Solo Flight

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INTRODUCTION

Canada encompasses over "...18 million square kilometres of land and water, more than 243,800 kilometres of coastline..." and is characterized by geographic and weather extremes found in few other locations worldwide. These characteristics create some of the most challenging conditions for providing life-saving search and rescue (SAR) services. These activities are administered through a complex web of governance and jurisdictions that spans the full breadth of the federal, provincial and territorial departments and non-governmental agencies. They are notionally managed under the auspices of Canada's National Search and Rescue Program (NSP), defined as "...a Canada-wide horizontal program that integrates organizations and resources involved in the provision of search and rescue...services to Canadians, including SAR response and prevention."

However, the level of SAR services available to Canadians is arguably inconsistent across the country, demonstrated by the differing nature of the SAR response to a vessel in distress on the West Coast of Canada from one on the East Coast or the Great Lakes. Similarly, the response to an individual in distress while hiking or hunting differs in each province or territory within Canada. Some of the key variables affecting a SAR response are geography, population, weather, resources, legal frameworks, and policy. While the first three variables listed are essentially outside of the control of any given governing body, the last three have significant and lasting impacts on how a SAR mission is prosecuted.

This paper will focus on the governance and policies that affect SAR activities within Canada to identify the sources of inequalities in the delivery of SAR services. Furthermore, it will investigate potential deficiencies within Canada's NSP related to accountability and coordination. This paper will start with a basic overview of key, fundamental concepts and definitions associated with SAR, followed by a brief historical context for the existing governance framework will then follow. An overview of the current NSP and the established structure of SAR governance within Canada will then be covered to investigate some potential deficiencies and challenges of this governance model. Finally, the paper will conclude by examining some best practices from another international model to explore alternate governance models.

¹ Minister of Public Works and Government Services, *Report of the Auditor General of Canada – Chapter 7 Federal Search and Rescue Activities* (Ottawa: Office of the Auditor General, 2013), pg 3, https://publications.gc.ca/collections/collection_2013/bvg-oag/FA1-2013-1-7-eng.pdf.

² Public Safety Canada, "National Search and Rescue Program," last accessed 27 February 2023, https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/rspndng-mrgnc-vnts/nss/prgrm-en.aspx.

SAR BASICS

To better understand the complexities and nuances of the Canadian SAR system, it is important to have a baseline understanding of key concepts and definitions, including the domestic and international framework of SAR responsibilities.

SAR responses can entail very different approaches depending on the location and nature of any distress and can therefore be defined and categorized differently. The Canadian Aeronautical and Maritime Search and Rescue Manual (CAMSAR) broadly defines SAR as "...the search for, and provision of aid to, persons, ships or other craft which are, or are feared to be, in distress or imminent danger." In line with this definition, Canada has divided SAR activities into three complementary components: aeronautical, maritime and ground SAR.⁴ The CAMSAR further defines an aeronautical SAR incident as "a search and rescue incident involving an aircraft," while a maritime SAR is defined as an "...incident on any Federal waterway involving a vessel or person(s) from a vessel, including the medical evacuation of person(s) from a vessel...."5 A ground SAR incident is "any search and rescue incident not otherwise classified as an aeronautical or maritime incident, and involving mission persons or persons in distress."6 The term "humanitarian SAR" is often used interchangeably with "ground SAR" but is habitually linked to instances where aeronautical or marine resources are leveraged for ground SAR purposes. This paper will use the term "ground SAR" to capture both. In Canada, different federal, provincial or territorial agencies and organizations have been mandated to provide SAR services in these three pillars.

HISTORICAL CONTEXT FOR THE CURRENT SAR FRAMEWORK

Early Confederation and Foundation

The current framework for Canada's SAR program results from an incremental identification of the need for specific capabilities, the availability of resources, and significant SAR-related events. These elements have created a complex web of jurisdictions and organizations, necessitating an awareness of the historical context for creating these responsibilities to understand Canada's current SAR framework better.

For much of Canada's history, the provision of SAR services was an ad-hoc collection of government departments, local volunteer groups and associations that provided niche services in various areas. These elements did not, however, coordinate among themselves or report to any collective higher authority. By way of explanation is the creation of lifeboat stations located on Canada's coasts. They provided shore-based

³ Department of National Defence and Department of Fisheries and Oceans Canada, B-GA-209-001/FP-001, *Canadian Aeronautical and Maritime Search and Rescue Manual – CAMSAR* (Ottawa: DND and CCG Canada, 2020), I-1.02(E), 1.

⁴ Department of National Defence and Department of Fisheries and Oceans Canada, *Canadian Aeronautical and Maritime Search and Rescue Manual – CAMSAR*, I-1.02(E), 1.

⁵ Department of National Defence and Department of Fisheries and Oceans Canada, *Canadian Aeronautical and Maritime Search and Rescue Manual – CAMSAR*, C-0.6(E), 1 and 9.

⁶ Department of National Defence and Department of Fisheries and Oceans Canada, *Canadian Aeronautical* and Maritime Search and Rescue Manual – CAMSAR, C-0.6(E), 7.

rescue services for maritime vessels in distress from as early as 1801 but were independent of one another and did not initially report to any level of government.⁷ Another example stemmed from the "increasing popularity of mountain tourism [which] prompted the Canadian Pacific Railway to hire professional mountain guides to ensure the well-being and safety of their guests."⁸

From a maritime perspective, humane and lifeboat societies have long played a key role in SAR activities and are often considered "...the pioneers of organized lifesaving." In Canada, Sable Island's Humane Establishment rescued crews and passengers from 1801 to 1958 through the efforts of numerous lighthouses and lifesaving stations. Pollowing Canada's Confederation, the Department of Marine and Fisheries was established in 1868 and assumed responsibility for life-saving stations as well as "...marine safety and search and rescue under its Marine Service. The Humane Establishment and other similar organizations also fell under the purview of the Department of Marine and Fisheries, which employed them "...for the purpose of rendering assistance to any persons who may be wrecked...and of saving property." This inclusion of life-saving services under the newly formed department "exemplified the growth of government authority over seaward approaches to Halifax and represented the beginnings of government responsibility for coastal rescue services in Canada."

International Commitments and Gradual Expansion

In the early years of aviation following the First World War, aeronautical SAR in Canada was an ad hoc collection of civilian and military rescue activities often associated with commercial bush flying and military aircrew training. ¹⁴ During the Second World War, the "...RCAF conducted search operations using whatever aircraft and personnel that could be spared from their primary operational and training roles." ¹⁵ The Royal Canadian Air Force (RCAF) also participated in SAR activities for civilian aircraft, though under the direction of the Royal Canadian Mounted Police (RCMP) or other constabulary forces. ¹⁶

⁷ Parks Canada, "Sable Island Humane Establishment (1801-1958) National Historic Event," last accessed 26 April 2023, https://parks.canada.ca/culture/designation/evenement-event/sable-island.

⁸ State of the Mountains, "Milestones: Past, Present and Future of the Association of Canadian Mountain Guides (2020)," last accessed 26 April 2023, https://www.stateofthemountains.ca/state-of-the-mountains-blog/milestones-past-present-and-future-of-the-acmg.

⁹ Clayton Evans, *Rescue at Sea* (Annapolis: Naval Institute Press, 2003), 24.

¹⁰ Maritime Museum of the Atlantic, "Sable Island," last accessed 26 April 2023, https://maritimemuseum.novascotia.ca/research/sable-island.

¹¹ Government of Canada, "History of the Canadian Coast Guard," last accessed 26 April 2023, https://www.ccg-gcc.gc.ca/corporation-information-organisation/history-histoire-eng.html.

¹² Department of Marine and Fisheries, *Annual Report for the Year 1868* (Ottawa: Hunter, Rose and CO, 1869) 4, () Annual Report, Department of Fisheries (1868) (dfo-mpo.gc.ca).

¹³ Parks Canada, "Sable Island Humane Establishment (1801-1958) National Historic Event."

¹⁴ Clinton Mowbray and Canadian Forces College, "Lessons Forgotten?: A Historical Examination of the RCAF Search and Rescue Organization," Canadian Forces College, 2014, 8.

¹⁵ G.Y. Grant, Seek and Save – The History of 103 Rescue Unit (Erin: The Boston Mills Press, 1990), 11.

¹⁶ Grant, Seek and Save, 11.

It wasn't, however, until the 1944 *Convention on International Civil Aviation* that the Federal Government was identified as the responsible party for aeronautical SAR, arising from Canada's signatory status in the convention, specifically Article 25. This convention led to the establishment of the United Nations (UN) International Civil Aviation Organization (ICAO), which established rules and guidelines for airspace control, aircraft registration, safety and, importantly, aircraft in distress. Article 25 of the *Convention* confirms that "each contracting State undertakes to provide such measures of assistance to aircraft in distress in its territory as it may find practicable...." 17

As the requirement for a structured SAR organization became readily apparent, an Interdepartmental Committee on Search and Rescue (ICSAR) comprised of representatives from the Departments of Justice, Transport, Fisheries and National Defence was established on January 16th, 1946. Initial recommendations from ICSAR included the establishment of an Air, Sea, Land Rescue Service. However, the Federal Cabinet ultimately elected to authorize the creation of a "search and rescue organization for aircraft in distress...under R.C.A.F. auspices...." The date of this Federal Cabinet decision on June 18th, 1947, is often viewed as the creation of the formal aeronautical SAR framework in Canada. The Federal Cabinet further delegated responsibility for maritime SAR *coordination* to the RCAF in 1951.

The Government of Canada later established the Canadian Coast Guard (CCG) in 1962, with one of the main rationales being the "...establishment of a marine Search and Rescue branch..." Another primary reason for establishing the Canadian CCG was the "...growth of world shipborne trade, requiring not only national regulations and safety rules, but also the need to work with international bodies and United Nations..."

Evolution Through Tragedy and Re-Evaluation

Unfortunately, it took tragedies to achieve real progress and drive the evolution of SAR services in Canada. On October 19th, 1976, the Dutch freighter *Gabriella* sank in a storm off the coast of Newfoundland with the loss of 13 of its 15-person crew.²⁴ Earlier re-distribution of primary RCAF assets in the 1960s had left Newfoundland with no dedicated aeronautical SAR capability.²⁵ This tragedy, among others, led to a government

¹⁷ University of Oslo, "Convention on International Civil Aviation (ICAO Convention)," last accessed 26 April 2023, https://www.jus.uio.no/english/services/library/treaties/07/7-01/international-civil-aviation.xml. ¹⁸ J.M. Weissenborn and Canadian Forces College, *Mind the Gap: The Ground Truth Behind an Optimized National Search and Rescue System*, Vol. JCSP/PCEMI 42-15 (Toronto: Canadian Forces College, 2016), 48 and Privy Council Office, *Cabinet Conclusion 14 October 1953*, 15, http://central.bac-lac.gc.ca/.item?op=img&app=cabinetconclusions&id=e000831265.

¹⁹ Weissenborn, "Mind the Gap," 47 and Privy Council Office, *Cabinet Conclusion 16 January 1946, 8, 1953*, https://central.bac-lac.gc.ca/.item?op=img&app=cabinetconclusions&id=e000822125.

²⁰ Weissenborn, "Mind the Gap," 47 and Privy Council Office, *Cabinet Conclusion 18 June 1947, 4-5*, https://central.bac-lac.gc.ca/.item?op=img&app=cabinetconclusions&id=e000823823.

²¹ Weissenborn, "Mind the Gap," 50.

²² C.D. Maginley, *The Canadian Coast Guard 1962-2002* (St. Catherines: Vanwell Publishing Limited, 2003), 13.

²³ Maginley, *The Canadian Coast Guard*, 13.

²⁴ Grant, Seek and Save, 105

²⁵ Weissenborn, "Mind the Gap," 54.

decision to resurrect ICSAR and to create a formalized National SAR Plan. ICSAR was formally established to "...facilitate co-ordination and to provide advice to a Cabinet Committee on SAR policy, planning and resources." The re-establishment of this committee also arose from the identified reality that "...no single agency for developing, implementing and controlling a national SAR program...[was]...yet in place." The re-establishment of this committee also arose from the identified reality that "...no single agency for developing, implementing and controlling a national SAR program...[was]...yet in place."

Another significant moment in the evolution of Canada's Search and Rescue Program arose from the terrible events surrounding the sinking of the *Ocean Ranger* offshore drilling platform in February of 1982. The "semisubmersible drilling unit...capsized and sank on the Grand Banks, 170 nautical miles east of St. John's..." and led to the loss of the 84-person crew. ²⁸ The disaster led to the establishment of the Royal Commission on the Ocean Ranger Marine Disaster, which was tasked to investigate the loss of the *Ocean Ranger* and provide recommendations on improving the safety of drilling operations off Eastern Canada.²⁹ The commission published the result of their investigation in four separate reports looking into circumstances surrounding the loss of the rig and its crew and the safety of offshore operations in Eastern Canada. The reports made over 130 recommendations related to safety standards, regulations and environmental factors, with numerous being directly associated with the rescue surrounding the disaster. 30 Of note, the reports recommended that "...the Rescue Coordination Centre in Halifax and the Rescue Emergency Centre in St. John's have available ... all relevant information with respect to offshore drilling operations... in their respective zones of responsibility...."31 The reports also recommended that "...Canada develop a contingency plan outlining the procedures to be followed in the event of a major marine disaster..." and that the "...final responsibility for rescue is that of the state."32 Finally, the report describes a SAR system in which "... a set of discrete search and rescue activities [is being] provided by two separate departments rather than an integrated program developed to provide an adequate and timely response in the event of an emergency."33 It further clarified that "...there is no single functioning agency with the mandate to knit together the several components into a comprehensive national SAR program."³⁴ The report ultimately recommended that "a national SAR program be established with a distinct integrated structure: a co-ordinated program...under a lead minister who is not otherwise directly involved in providing search and rescue

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²⁶ Governments of Canada and Newfoundland, *The Royal Commission on the Ocean Ranger Marine Disaster – Report Two: Safety Offshore Eastern Canada* (Ottawa: Canadian Government Publishing Centre, 1985), 122.

²⁷ Canada and Newfoundland, *The Royal Commission on the Ocean Ranger – Report Two*, 122.

²⁸ Governments of Canada and Newfoundland, *The Royal Commission on the Ocean Ranger Marine Disaster – Report One: The Loss of the Semisubmersible Drill Rig Ocean Ranger and its Crew* (Ottawa: Canadian Government Publishing Centre, 1984), iii.

²⁹ Canada and Newfoundland, The Royal Commission on the Ocean Ranger – Report One, iii.

³⁰ Canada and Newfoundland, *The Royal Commission on the Ocean Ranger – Report Two*, Chapter 11 and Canada and Newfoundland, *The Royal Commission on the Ocean Ranger – Report One*, Chapter Ten.

³¹ Canada and Newfoundland, *The Royal Commission on the Ocean Ranger – Report One*, 155.

³² Canada and Newfoundland, *The Royal Commission on the Ocean Ranger – Report One*, 155 and Canada and Newfoundland, *The Royal Commission on the Ocean Ranger – Report Two*, 161.

³³ Canada and Newfoundland, *The Royal Commission on the Ocean Ranger – Report Two*, 161.

³⁴ Canada and Newfoundland, *The Royal Commission on the Ocean Ranger – Report Two*, 161.

services...."³⁵ While these reports were published in 1984 and 1985, more than two years after the *Ocean Ranger* tragedy, the Government had separately commissioned an extensive evaluation of Canada's entire SAR system previously.

This Government of Canada evaluation, published as the *Report on an Evaluation* of Search and Rescue and commonly referred to as the Cross Report, was released in September of 1982, seven months after the *Ocean Ranger* sank. Federal Ministers had requested the report to "...arrange for an assessment of the effectiveness of Search and Rescue in the form of a program evaluation." It described the SAR Program as "...a collection of activities performed by several departments, developed historically from individual air and marine requirements."36 The report also indicates that "the federal SAR program is intended primarily to provide search and rescue services to persons involved in air and marine distress incidents."³⁷ Notably, ground SAR activities are not mentioned in this statement, nor are any organizations outside federal departments within the National SAR Plan at the time. 38 Among numerous critical conclusions from the Cross Report, "...the need for a clearly identified federal SAR program accompanied by a set of policies, levels of service and standards and procedures against which to measure program performance" stands out. ³⁹ Overall, the first recommendation by the evaluation team for the Cross Report was that "... Canada's responsibilities for search and rescue be discharged through the development of a National Search and Rescue Program with roles for federal, provincial and local authorities within their defined areas of jurisdiction..."40 It further identified the importance of "...participation by the private sector and members of the public in program development, co-ordination [sic] and execution, in accordance with SAR system response time and survival standards made known to the public."41

Fortunately, this series of tragic events and reports ultimately led to the creation and establishment of the National SAR Secretariat (NSS) in 1986.⁴² It was designed to work as an "…independent body outside the line authorities of SAR delivery departments" and to "…enhance the provision of effective, efficient and economical SAR services in Canada…"⁴³ This was to be accomplished by establishing a new National SAR Program, with a statement to "…save lives by enhancing SAR prevention and provide effective and affordable SAR services in Canada's SAR areas of responsibility."⁴⁴ A Lead Minister for SAR (LMSAR) under the newly established NSP

³⁵ Canada and Newfoundland, *The Royal Commission on the Ocean Ranger – Report Two*, 162.

³⁶ Cabinet Committee on Foreign and Defence Policy, *Report on an Evaluation of Search and Rescue* (Ottawa: Canadian Government Publishing Centre, 1982), 5.

³⁷ Cabinet Committee, Report on an Evaluation of Search and Rescue, 5.

³⁸ Cabinet Committee, Report on an Evaluation of Search and Rescue, 15.

³⁹ Cabinet Committee, Report on an Evaluation of Search and Rescue, 365.

⁴⁰ Cabinet Committee, Report on an Evaluation of Search and Rescue, 402.

⁴¹ Cabinet Committee, Report on an Evaluation of Search and Rescue, 402.

⁴² "Ottawa to Set Up Bureau for Rig Safety," *Globe and Mail*, 1986.

⁴³ Department of National Defence and Department of Fisheries and Oceans Canada, *Canadian Aeronautical and Maritime Search and Rescue Manual – CAMSAR*, I-1.05E, 1 of 2.

⁴⁴ Department of National Defence and Department of Fisheries and Oceans Canada, *Canadian Aeronautical and Maritime Search and Rescue Manual – CAMSAR*, I-1.02(E), 1 of 2.

was also identified as the Minister of National Defence and tasked as the "...single spokesperson for the government on overall search and rescue (SAR)[sic] matters..."⁴⁵

A final development of Canada's SAR program occurred in 2015 when the Department of Public Safety Canada (PS) took over responsibility for the NSS and the NSP.⁴⁶ This handover of responsibilities is notable as it aligns with one of the key recommendations from the *Cross Report*, which identified the "...desirability of...a minister other than the Minister of National Defence being named as the minister responsible for co-ordinating the National SAR Programs...."⁴⁷ The transfer aimed to build "...on the delivery of SAR services in Canada and will contribute to improved interoperability, coordination, and prevention efforts."⁴⁸ Another rationale was taking advantage of "...Public Safety Canada's extensive experience coordinating among government institutions, as well as its cooperation with provincial, territorial, and non-government organizations on emergency management matters."⁴⁹ Of critical note is that the mantle of LMSAR did not shift to PS and is not currently assigned to any department.⁵⁰

This historical review of SAR-related policy and notable benchmarks almost exclusively covers maritime and aeronautical SAR events since the evolution of ground SAR services in Canada has been less formal than marine and aeronautical SAR. Ground SAR has yet to develop and include any federal or national-level governance body empowered with governance or policy authority. Instead, the provenance of ground SAR has remained the responsibility of individual provinces and territories and is, therefore, a collage of different policies, jurisdictions and frameworks. The following section will provide a better overview of how ground SAR is integrated into the NSP.

CURRENT FRAMEWORK OF CANADA'S NATIONAL SAR PROGRAM

As previously defined, Canada's NSP is a horizontal program that strives to integrate the myriad of resources and agencies responsible for SAR and facilitate the coordination between these agencies. The two main pillars of the program are SAR Prevention and SAR Response, which are guided by a vision in which "...the critical importance of...[SAR]...is reflected in a multi-jurisdictional approach to promoting

⁴⁵ Department of National Defence and Department of Fisheries and Oceans Canada, *Canadian Aeronautical and Maritime Search and Rescue Manual – CAMSAR*, I-1.05E, 1 of 2.

⁴⁶ Government of Canada, "Government of Canada announces improvements to Canada's Search and Rescue System," last accessed 26 April 2023,

https://www.canada.ca/en/news/archive/2015/07/government-canada-announces-improvements-canada-search-rescue-system.html.

⁴⁷ Cabinet Committee, Report on an Evaluation of Search and Rescue, 403.

⁴⁸ Government of Canada, "Government of Canada announces."

⁴⁹ Government of Canada, "Government of Canada announces."

⁵⁰ James Pierotti, "In Need of Rescue: Canadian Search and Rescue Policy," *Canadian Military Journal (Ottawa)* 18, no. 1 (2017): 23.

individual, collective and organizational behaviour that minimizes the risk of injury or loss of life while maintaining timely and effective response services."⁵¹

Responsibility

Under the current framework, "...responsibility for the NSP resides within Public Safety and Emergency Preparedness Canada..." PS exercises this responsibility through the NSS, which "...serves as a central coordinator for the National SAR Program..." and "...provides policy advice and recommendations to support Canada's search and rescue efforts." Essentially, the NSS is notionally responsible for the horizontal coordination of the plethora of committees, councils and organizations with SAR-related responsibilities and authorities.

Each of the three primary pillars of SAR has an organization identified as the primary authority. Aeronautical and Maritime SAR are both the responsibility of the Federal Government, which has delegated these responsibilities to the CAF and the CCG, respectively. Ground SAR is the responsibility of the respective provincial or territorial authorities. This responsibility has, in turn, been typically delegated to various police services or governing departments across the country, identified as "authorities having jurisdiction." ⁵⁴

The departments mentioned above, however, represent only the primary authorities for SAR services. There are more than a dozen other supporting departments that have SAR-related responsibilities in the realms of either prevention, response or public alerting. They include Parks Canada, Transport Canada, the Canadian Coast Guard Auxiliary (CCGA), the Civil Air SAR Association (CASARA) and Environment and Climate Change Canada (ECCC), to name a few.

Authority

As indicated in the preceding historical overview, the authorities for respective areas of SAR are founded in a collection of international agreements and conventions. In addition, aeronautical SAR activities continue to derive their authority from the Cabinet decision of 1947, with the Chicago ICAO conference serving as a foundation for specific responsibilities.

Maritime SAR activities derive their authority from Canada's *Oceans Act* and the *Canada Shipping Act*. In addition, they are rooted in the *International Convention on the*

⁵¹ Public Safety Canada, "National Search and Rescue Program," last accessed 26 April 2023, https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/rspndng-mrgnc-vnts/nss/prgrm-en.aspx.

⁵² Public Safety Canada, "National Search and Rescue Program."

⁵³ Public Safety Canada, "National Search and Rescue Program," and Public Safety Canada, "National Search and Rescue Secretariat," last accessed 26 Aril 2023,

https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/rspndng-mrgnc-vnts/nss/nsrs-snrs-en.aspx.

⁵⁴ Government of Canada, "About Search and Rescue (SAR)," last accessed 26 April 2023, https://www.canada.ca/en/department-national-defence/services/operations/military-operations/types/search-rescue/about.html.

Safety of Life at Sea (SOLAS), the International Convention on Maritime SAR, and other international maritime agreements.

While maritime and aeronautical authorities are consolidated at the federal level, ground SAR authorities are more decentralized and are predominantly found at the provincial and territorial levels. For example, parks Canada derives its SAR mandate authority from the *National Parks Act*, while acts such as British Columbia's *Emergency Program Act* support the concept that ground SAR is a provincial or territorial responsibility. The term "search and rescue" rarely appears in emergency-related legislation. However, there generally exists an informal acceptance in most emergency management organizations that "search" equates to an emergency. It should be noted that there is currently no singular body of federal legislation that delegates ground SAR responsibilities to the provinces or territories.

Governance and Coordination

Given the number of organizations involved with SAR having different areas of focus and jurisdiction, effective coordination horizontally through departments and associations and vertically through levels of government is critical. No fewer than seven national-level committees and councils exist to ensure this coordination. Three of those committees are directly coordinated by PS: ICSAR, the National SAR Advisory Council (NSARAC) and the Urban SAR Advisory Committee (USARAC).⁵⁶ A further four committees are associated with the NSP and coordinate to various degrees with the NSS: The Ground SAR Council of Canada (GSARCC), the Federal SAR Operations Governance Committee (FSAROGC), the Senior Officials Responsible for Emergency Management (SOREM) and the International SAR Advisory Group (INSARAG). In addition, many other working groups and committees exist, such as the COSPAS-SARSAT Joint Committee. Annex A shows the membership for the abovementioned committees and councils.

ICSAR remains the "...senior level federal committee consisting of federal departments with SAR responsibilities..." with multiple working groups and "...provides [federal] ministers with advice from a whole-of-government perspective and facilitates collaboration among deferral departments." Public Safety chairs the committee and includes representation from the Department of National Defence (DND), the Department of Fisheries and Oceans (DFO), the RCMP, Parks Canada and several other departments. ⁵⁸

NSARAC is an "...inclusive, collaborative body of SAR partners that examines and provides strategic advice on SAR policy and program matters and serves as a voice

⁵⁵ Government of British Columbia, "Emergency Program Act," last accessed 26 April 2023, https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/477 94.

⁵⁶ Public Safety Canada, "Search and Rescue Committees," last accessed 26 April 2023, https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/rspndng-mrgnc-vnts/nss/src-crs-en.aspx#s11.

⁵⁷ Public Safety Canada, "Search and Rescue Committees."

⁵⁸ Public Safety Canada, "Search and Rescue Committees."

for Canada's SAR community."⁵⁹ Unlike ICSAR, which comprises federal departments within the Government of Canada, NSARAC includes non-government groups such as the Assembly of First Nations, the Canadian Association of Fire Chiefs and the Paramedic Chiefs of Canada. PS, along with two other members, chairs this council.

Like NSARAC, the GSARCC brings together representatives from various "...provincial and territorial SAR authorities as well as national organizations with an operational or policy role in the delivery of...[GSAR]...services."⁶⁰ While NSARAC's focus transcends the individual pillars of SAR (aeronautical, maritime and ground), GSARCC's focus is, as its name implies, focused predominantly on ground SAR-related concerns.

The FSAROGC is "...the principal oversight body for the effective coordination of aeronautical and maritime SAR operations..." and brings together elements of the CAF and CCG in an operational forum. The remaining councils and committees all follow a similar format; a collection of representatives with SAR-related responsibilities meeting to discuss, coordinate or advise in different shades of horizontal or vertical scope. Notwithstanding the relatively close level of coordination between the two federal mandates of aeronautical and maritime SAR, the NSP is framed around a governance model that relies on decentralized control and execution. While the benefits of such a model include flexibility within various jurisdictions and areas of responsibility and reduced bureaucracy associated with large-scale governance, there are challenges to this type of model—the following section endeavours to assess some of these challenges apparent within the framework of the NSP.

CHALLENGES OF THE CURRENT MODEL

Accountability and Policy

While the NSP has evolved out of necessity in order to address identified operational gaps or specific needs, the resulting framework still has challenges and shortfalls. One of the main challenges is a weak framework of accountability. While the concepts of authority, responsibility and accountability are essential in effective governance, it should be clarified that there is a distinct difference between them. Authority is "...the power that is conferred or assigned by a constitution or statute to exercise the powers of state in respect to some general or particular matter of public policy and administration." The NSP clarifies the primary authorities for the various pillars of SAR and their sources: the Federal Government or the respective Provincial and Territorial governments.

⁵⁹ Public Safety Canada, "Search and Rescue Committees."

⁶⁰ Public Safety Canada, "Search and Rescue Committees."

⁶¹ Public Safety Canada, "Search and Rescue Committees."

⁶² Peter Aucoin and M. D. Jarvis, *Modernizing Government Accountability: A Framework for Reform*. (Ottawa: Canada School of Public Service, 2005), 92.

Responsibility "...refers variously to a person of a body having the authority or power over a matter, as being in charge." Again, the NSP identifies which department is responsible for either aeronautical, maritime or ground SAR. The first two are single federal departments, while the last is a collection of different authorities having jurisdiction.

Accountability can be defined as "...the process whereby those to whom authority has been conferred or delegated...must justify their actions...to a superior authority who has the obligation to hold to account all those on whom it had bestowed authority and responsibility." The NSP does not currently identify a single, ultimate organization or individual accountable for all others. *Responsibility* for the NSP resides within Public Safety and Emergency Preparedness (EP) Canada, but accountability to a higher authority is not mentioned. Furthermore, it is not identified that any departments or organizations holding individual responsibilities or authorities are genuinely accountable to PS or EP Canada.

The lack of a clearly articulated national SAR policy exacerbates the issue of accountability. The *Report of the Auditor General of Canada on Federal Search and Rescue Activities* from 2013 highlights this by stating:

The government identified the need for a national SAR policy framework in 1976 and restated this need a number of times over the years, including with the 1985 Royal Commission on the Ocean Ranger Marine Disaster. While roles and responsibilities are clear at the operational level for the Canadian Forces and the Canadian Coast Guard, the departments do not have a common set of principles for coordination with other levels of government on national matters. In spite of the many reports and recommendations for a national SAR policy, we found that there is still no such policy nor an overall federal policy, planning framework, clear statement of expectations for federal SAR services, or ability to measure overall federal SAR effectiveness. The national SAR system involves federal, provincial and territorial organizations, so the development of a

policy framework would need to include all of these stakeholders. The National Search and Rescue Secretariat (NSS) has made efforts over the years to establish a policy and governance framework, but it has not been successful.⁶⁵

A comprehensive national SAR policy has not been published since this report's release. This lack of defined policy creates a vacuum of accountability, with no single organization empowered with operational authority. The multitude of committees and

⁶³ Aucoin, Modernizing Government Accountability, 104.

⁶⁴ Aucoin, Modernizing Government Accountability, 91.

⁶⁵ Minister of Public Works and Government Services, Report of the Auditor General of Canada, 23.

councils related to SAR are advisory in nature only, often include many of the same members and have no official command or control relationship with each other.

Despite the high level of strategic coordination of the NSP through its various committees, the lack of clear policy and central accountability has led to interoperability challenges. While interoperability is a crucial goal of the NSS, there is nothing in the framework to compel individual authorities to adopt common standards, certification or compatibility between capabilities. This is less of a challenge between the aeronautical and maritime authorities as these responsibilities lie at the federal levels. Furthermore, the CAF and CCG are heavily integrated at the tactical and operational levels through the Joint Rescue Coordination Centres (JRCCs). Conversely, ground SAR presents a more significant challenge as each province and territory is responsible for its respective mandate. To highlight this, a CAMSAR manual exists for aeronautical and maritime SAR, but no equivalent single document for ground SAR.

Frictions at Interfaces of Jurisdictions

A second challenge in the current framework of the NSP relates to the previously mentioned concept of interoperability. With so many separate jurisdictions and authorities, there are invariably instances where coordination breaks down, and the overall effectiveness of the greater SAR enterprise is affected. This is particularly risky when multiple authorities are involved in the same mission and jurisdictional lines become blurred. For example, when a task for a missing person is being conducted with a provincial entity as the primary authority, a federal or non-government aeronautical resource might be leveraged to aid the ground search. The process to request this support differs from jurisdiction to jurisdiction. Furthermore, these processes are not always clear to the organizations involved. An unfortunate example of this was described in the final report of the *Public Inquiry Respecting Ground Search and Rescue for Lost and Missing Persons*, released in November of 2021.

The Government of Newfoundland and Labrador commissioned the inquiry to investigate "...the organization and operations of the ground search and rescue system in the Province." In the very opening pages of the report, the commission highlighted the importance of the word *interoperability* and the "...wish to see the Province continue its efforts to seek high level cooperation with their federal counterparts so that people do not feel interjurisdictional misunderstanding or [that] excessive protocols hamper searches." The Commission heard further evidence that there was "...uncertainty and confusion within those persons and agencies tasked with operating and conducting Ground Search and Rescue operations in coastal areas as to which resources are available... and who would be responsible for conducting these searches."

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⁶⁶ Newfoundland and Labrador Canada, "Final Report of the Ground Search and Rescue Inquiry Released," last accessed on 1 May 2023, https://www.gov.nl.ca/releases/2021/jps/1201n05/.

⁶⁷ Government of Newfoundland and Labrador, *Public Inquiry Respecting Ground Search and Rescue for Lost and Missing Persons* (St. John's: King's Printer for Newfoundland and Labrador, 2021), 9.

⁶⁸ Government of Newfoundland and Labrador, *Public Inquiry*, 133.

The various SAR-related committees and councils previously identified aim to mitigate the challenges of interoperability and operational frictions. Nevertheless, these efforts are often conducted at high, strategic and operational levels. Consequently, the coordination and understanding of governance and jurisdiction do not always translate to the tactical level. To be fair, unless closely familiar with the composition and aim of each of the various committees and councils, it can be challenging to identify who is responsible or provides advice on which element of the overall SAR program.

A final example relevant to frictions between jurisdictions and the lack of a single and clearly defined source of accountability within the NSP revolves around public safety answering points (PSAP). PSAPs are "...call centres responsible for answering calls to 9-1-1 for police, firefighting and ambulance services."69 They also represent one of the critical interfaces available to the Canadian public for requesting SAR services when in distress. They are closely integrated with ground-related emergency and SAR services. As these are provincial or territorial areas of responsibility, each PSAP ultimately falls under the responsibility and control of individual cities, municipalities, provinces or territories.

Since the creation of the 9-1-1 emergency system, the federally-run JRCCs were never included as response options or designated as PSAPs. Recently, in an attempt to ensure better integration of aeronautical and maritime SAR response efforts into the various GSAR networks, the CAF and CCG endeavoured to have the JRCCs identified as secondary-level PSAPs. 70 The challenges facing this effort became apparent as no identifiable, single authority could approve the request at a national or federal level. Notionally, each JRCC would have to request authorization for inclusion into each PSAP within their jurisdiction. For JRCC Trenton, which provides service to almost two-thirds of the country, this entails well over 100 different PSAPs for Ontario alone. 71 Ultimately, the CAF and CCG elected to pursue approval through an application to the Canadian Radio-television and Telecommunications Commission (CRTC), with a final decision still pending.⁷² It is telling that an administrative tribunal operating "...at arm's length from the federal government..." and not included in the NSP framework might hold the approving authority for including the JRCCs in the 9-1-1 emergency services framework of the country.⁷³

⁶⁹ Canadian Radio-television and Telecommunications Commission, "Glossary," last accessed 26 April

^{2023,} https://crtc.gc.ca/multites/mtwdk.exe?k=glossary-glossaire&l=60&w=386&n=1&s=5&t=2.

⁷⁰ Canadian Radio-television and Telecommunications Commission, "Telecom – Procedural Letter addressed to Distribution list," last accessed 26 April 2023,

https://crtc.gc.ca/eng/archive/2022/lt221109.htm? ga=2.69031767.759149147.1682508620-10464340.1682508620.

⁷¹ Government of Ontario, "Ontario Modernizing its Emergency Response System," last accessed 27 April 2023, https://news.ontario.ca/en/release/1002039/ontario-modernizing-its-emergency-response-system. ⁷² Accurate at the time of submission of this paper.

⁷³ Canadian Radio-television and Telecommunications Commission, "Canadian Radio-television and Telecommunications Commission," last accessed 26 April 2023, https://crtc.gc.ca/eng/home-accueil.htm.

ALTERNATIVE GOVERNANCE FRAMEWORK

In reviewing Canada's NSP and some of its associated challenges, it is beneficial to briefly investigate the national SAR frameworks of other nations from a governance perspective. For example, Norway has similar coastal and mountainous geography elements, population density, and disposition. It should be noted that key differing factors between Norway and Canada are the physical size of the geography and its accessibility. Canada is 26 times larger and has a population seven times larger than Norway.⁷⁴

Norway's approach to SAR is "...a nationwide effort in which many contribute...[and where]...all resources – whether national, county, local, commercial or private...are registered, trained and mobilized for duty in a public SAR service." Like Canada, the Norwegian SAR Service leverages the resources of numerous government agencies and relies on the cooperation of these entities. The coordination of this service is conducted by the Ministry of Justice and Police, with the Minister being in overall charge. Differences lie in their "integrated coordination structure," where each JRCC can handle aeronautical, maritime operations *and* ground SAR. Furthermore, their "collective SAR management" concept ensures that critical government agencies are represented at the tactical level within each JRCC, ultimately providing "...the best possible vantage point for supervision and command." This framework ensures that coordination occurs not just at the strategic level but also at the operational and tactical levels, alleviating many of the jurisdictional frictions in Canada's SAR system.

Relevant to note as well is the inclusion of SAR-related provisions in federal-level regulation such as their *Civil Defence Act*, health and social security legislation and even their *Penal* Code. Overall the Norwegian system is more centralized in its control and execution of SAR services.

CONCLUSION

Canada is a country that presents evident complexities in the provision of SAR services. Moreover, the gradual evolution of the framework governing these services has created a complex web of horizontal and vertical governance that ultimately challenges the overall effectiveness of the NSP. This paper has argued that some of the primary difficulties surrounding Canadian SAR governance revolve around friction between the various levels and branches of jurisdiction, a lack of defined accountability within the NSP, and the need for an all-encompassing policy.

Based on the sheer number of committees and councils related to SAR, it is reasonable to conclude that there is no lack of effort in striving for coordination amongst the different departments and organizations. Despite these efforts, frictions are present

⁷⁴ World Data, "Country Comparison – Canada and Norway," last accessed 26 April 2023, https://www.worlddata.info/country-comparison.php?country1=CAN&country2=NOR.

⁷⁵ Norwegian Ministry of Justice and Police, *The Norwegian Search and Rescue Service* (Oslo: Government Printing Office, 2002), 5.

⁷⁶ Norwegian Ministry of Justice and Police, *The Norwegian Search and Rescue*, 5.

⁷⁷ Norwegian Ministry of Justice and Police, *The Norwegian Search and Rescue*, 5.

when SAR activities overlap or move between jurisdictions. These frictions stem from the reality that two governance models are trying to mesh and coordinate. The first is a federal framework responsible for aeronautical and maritime SAR, which is relatively centralized in its execution of activities (through the JRCCs) and managed by only two departments. The second is a ground SAR framework entailing a collection of 13 different provincial and territorial policies that are neither centralized in their execution nor governed by a singular authority. Coordination at the strategic level through the various committees does not always translate to streamlined coordination at the tactical level, as the *Public Inquiry Respecting Ground Search and Rescue for Lost and Missing Persons* highlighted. The brief overview of Norway's National SAR Service can provide insights into alleviating those frictions, such as including ground SAR capabilities and representatives within the JRCCs and SAR considerations into federal-level legislation beyond the maritime and aeronautical domains.

The lack of an identified LMSAR and the absence of a transparent chain of accountability within the NSP also contribute to challenges in SAR governance. Many of the frictions mentioned stem from the reality that no central department or entity is accountable for any of the sub-authorities and that no single individual or department has the authority to compel the different provinces to adopt standardized certification for their SAR volunteers, to consider the requirements of another pillar when acquiring new equipment, or to approve national inclusion into SAR frameworks such as the JRCCs into the 9-1-1 PSAP network.

The need for a clear policy has been highlighted continuously throughout the evolution of SAR services in Canada. The Auditor General of Canada's report on SAR explicitly supports this idea: "...in spite of the many reports and recommendations for a national SAR policy, we found that there is still no such policy." Until one does exist, the NSP will remain a program that has essentially been "talked into existence" and is little more than an aggregate of various committees, councils and individual authorities. This shortfall does not take away from the hard work and dedication of the consummate professionals who strive to improve SAR services across the country and who embody the motto embraced by RCAF SAR Technicians: "That others may live."

The framework of Canadian Federalism has left the responsibility for different elements of SAR at the federal, provincial, or territorial levels. There is also a "...clear understanding amongst SAR response providers that no one jurisdiction can provide a complete capability in such a diverse country." Lacking a unifying policy, the reality is that there is a fundamental inequality of SAR services depending on where Canadians live within the country. Looking to the future, Canada must address these challenges if it is to have a SAR program that meets the expectations of Canadians. The *Cross Report* observed that "...greater centralization in a separate authority which would set

⁷⁸ Minister of Public Works and Government Services, *Report of the Auditor General of Canada*, 23.

⁷⁹ Government of Canada, "A Song from the Royal Canadian Air Force Band," last accessed 27 April 2023, https://www.canada.ca/en/air-force/services/showcasing/royal-canadian-air-force-band/that-others-may-live.html.

⁸⁰ National Search and Rescue Secretariat (Canada), *Charting the Future – The Federal Search and Rescue Program Management Framework*, (Ottawa: National Search and Rescue Secretariat, 2003), 4.

requirements and arrange with departments and the private sector for the execution of the program...may in the long run prove to only effective organizational solution."81

Canada has shown itself willing to change and adapt SAR policies when urgent needs arise and after tragedy has struck. However, the requirement to effectively bridge the governance gaps between federal, provincial and territorial SAR is exigent and demands a truly National SAR Program. A governance model in need of rescue? Rather, a model in need of a clear policy with better vertical accountability. Waiting for another tragedy to initiate needed change comes with too high a price.

⁸¹ Cabinet Committee, Report on an Evaluation of Search and Rescue, 391.

ANNEX A - Membership of Various SAR Governance Committees, Councils and Groups

Membership	
•	- Canadian Armed Forces (CAF)
Interdepartmental Committee on Search and	
Rescue (ICSAR)	- Royal Canadian Mounted Police (RCMP)
Rescue (ICSAR)	- Environment and Climate Change Canada (ECCC)
	- Canadian Space Agency (CSA)
	- Global Affairs Canada (GAC)
	- Canadian Coast Guard (CCG)
	- Indigenous Services Canada (ISC)
	 Innovation, Science, and Economic Development Canada (ISED) Transport Canada (TC)
	- Public Safety Canada (PS)
	, , ,
	- Parks Canada (PC)
Fodoval Coavels and	- Natural Resources Canada (NRC)
Federal Search and	- Canadian Armed Forces (CAF)
Rescue Operations	- Canadian Coast Guard (CCG)
Governance Committee	
(FSAROGC)	Dublic Cafety Canada (DC)
Urban SAR Advisory	- Public Safety Canada (PS)
Committee	- Global Affairs Canada (GAC)
	- Department of National Defense (DND)
	- City of Vancouver
	- City of Calgary
	- Government of Manitoba
	- City of Toronto
	- City of Montreal
	- City of Halifax
Constant Constant	- Each Provincial and Territorial government
Ground Search and	- Each Provincial and Territorial government
Rescue Council of Canada	- Search and Rescue Volunteer Association of Canada (SARVAC)
(GSARCC)	- Task Force - HUSAR rep (Currently City of Calgary)
	- Royal Canadian Mounted Police (RCMP)
	- Sûreté du Québec
	 Civil Air Search and Rescue Association (CASARA) Parks Canada (PC)
	` ,
Carrier Officials	- Public Safety Canada (PS)
Senior Officials	- Public Safety Canada (PS)
Responsible for	 Government of Alberta Government of British Columbia
Emergency Management	- Government of Manitoba
(SOREM)	- Government of New Brunswick
	 Government of Newfoundland and Labrador Government of Northwest Territories
	- Government of Nova Scotia
	- Government of Nunavut
	- Government of Ontario - Treasury Board Secretariat
	- Government of Ontario - Ministry of Municipal Affairs and
	Housing Covernment of Prince Edward Island
	- Government of Prince Edward Island
	- Government of Quebec

	 Government of Saskatchewan – Corrections, Policing, and Public Safety Government of Yukon
International Search and	- Global Affairs Canada (GAC)
Rescue Advisory Group	- Global Affairs Carlada (GAC) - Public Safety Canada (PS) [National Search and Rescue
(INSARAG) COSPAS-SARSAT	Secretariat]
COSPAS-SARSAT	Public Safety Canada (PS)Department of National Defense (DND)
	· · · · · · · · · · · · · · · · · · ·
	- Innovation, Science, and Economic Development Canada (ISED)
	- Transport Canada (TC)
	- Canadian Space Agency (CSA)
	- Global Affairs Canada (GAC)
	- Department of Fisheries and Oceans (DFO) – Canadian Coast
	Guard (CCG)
National SAR Advisory	- Public Safety Canada (PS)
Council (NSARAC)	- Canadian Coast Guard (CCG)
	- Department of National Defense (DND)
	- Government of Nunavut
	- Government of Saskatchewan
	- Government of British Columbia
	- Canadian Association of Chiefs of Police
	- Canadian Association of Fire Chiefs
	- Paramedic Chiefs of Canada
	- Assembly of First Nations
	- First Nations Chiefs of Police
	- Métis National Council
	- Innuit Tapiriit Kanatami
	- Search and Rescue Volunteer Association of Canada
	- Emergency Management BC
	- Civil Air Search and Rescue Association
	- Canadian Coast Guard Auxiliary (CCGA)
	- Congress of Aboriginal Peoples
	- Native Women's Association of Canada
	- Royal Canadian Mounted Police (RCMP)
	- Urban Search and Rescue Advisory Committee
	- Various Members of Academia

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