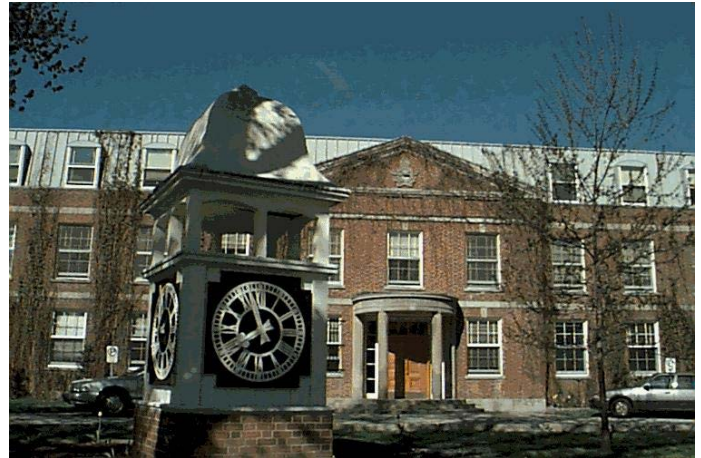


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CANADA'S NORTHERN STRATEGY – A SEARCH AND RESCUE CHALLENGE OR AN OPPORTUNITY?

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JCSP 40

Exercise Solo Flight

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SOLO FLIGHT ESSAY

**CANADA’S NORTHERN STRATEGY – A SEARCH AND RESCUE
CHALLENGE OR AN OPPORTUNITY?**

By Major A.M.J. Perry
Par le major A.M.J. Perry

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If we are true to Canada, if we do not desire to become part and parcel of these people, we cannot overlook this the greatest revolution of our times. Let us remember this, that when the three cries among our next neighbours are money, taxation, blood, it is time for us to provide for our own security.

- Thomas D'Arcy McGee, Legislative Assembly, February 9, 1865

INTRODUCTION

“The True North strong and free”, these words comprise but one verse of Robert Stanley Weir’s 1908, Canadian National Anthem. The Canadian Arctic comprises over forty percent of Canada’s landmass and is home to more than one hundred thousand Canadian citizens. Our national identity is inextricably associated with Arctic imagery. Millions of square kilometers in size, remote, austere, frigid, with over one hundred and sixty-two thousand kilometers of rugged and often frozen Arctic coastline makes this region one of the world’s most severe and inhospitable land masses on earth.

One of the domestic issues affecting the Canadian Government’s Northern Strategy is the Canadian Armed Forces’ (CAF) Search and Rescue (SAR) capabilities in the Arctic. A robust SAR capability is essential to enable the Government of Canada to exercise sovereignty over the Arctic.

This paper will utilize the basic concepts of strategy formulation and analysis to analyze the Government of Canada’s Northern Strategy policy and the inherent challenges to the development of relevant and sustainable SAR capabilities. Illustrative examples will demonstrate that the current CAFs’ SAR capabilities have either become obsolete or lack essential capabilities to meet National objectives set out in the Harper

Government's Northern Strategy policy. Further analysis will also identify capability gaps in the CAF SAR resources and propose ways to enhance the effective delivery of SAR in the Canadian Arctic.

Canada's Northern Strategy Policy – An Overview

“Canada has a choice when it comes to defending our sovereignty over the Arctic: Either we use it or we lose it, [...] because Canada's Arctic is central to our identity as a northern nation: It is part of our history and it represents the tremendous potential of our future.”¹ With these words Canada's Prime Minister, Stephen Harper, announced during his 2007 Speech from the Throne, his government's commitment to a program to build Arctic/Offshore Patrol Ships. In essence, with this statement Prime Minister Harper signaled to his cabinet and the Canadian population, that Northern Strategy policy formulation was to become one of the foremost priorities for his government's foreign policy agenda.

Leaders of Nation States frequently initiate policy formulation through political speeches, which are often influenced by public opinion polls and debates. Officially published in 2009, *Canada's Northern Strategy: Our North, Our Heritage, Our Future* is the Government of Canada's central Arctic policy document. During his 2007 Speech from the Throne, Prime Minister Stephen Harper asserted that the North is a fundamental part of our heritage, our national identity and a crucial aspect of our future. The

¹ Steven Chase, “Myth versus reality in Stephen Harper's northern strategy” Last accessed 24 April 2014. <http://www.theglobeandmail.com/news/national/the-north/myth-versus-reality-in-stephen-harpers-northern-strategy/article16397458/?page=all>

importance of Canada's Arctic territory, its population and the precious resources located in the Arctic is clearly reflected as a top priority of the present federal government. As further articulated during the 2007 Speech from the Throne, Prime Minister Harper stated:

Our Government will bring forward an integrated northern strategy focused on strengthening Canada's sovereignty, protecting our environmental heritage, promoting economic and social development, and improving and devolving governance, so that northerners have greater control over their destinies.²

Although not the first time a Canadian Government has contemplated the Canadian Arctic in terms of sovereignty and governance, the Harper government's vision for the Arctic centers around an integrated Northern Strategy focussed on four basic themes: sovereignty, economic and social development, environmental issues and good governance. Although the Northern Strategy document does not contain new funding commitments for initiatives in the North, it delineates clear pledges to the Canadian public which can be monitored, analyzed and debated.

The four themes alluded to above, which form the premise of the Northern Strategy, were succinctly described by Mr. John Kozij, Director Strategic Policy and Integration Directorate, Department of Indian Affairs and Northern Development as, "stemming from a number of issues,[...] several of them exogenous to the North, which taken together, represent an unavoidable set of inter-related challenges."³ These inter-

² Prime Minister Stephen Harper, "Speech from the Throne to open the Second Session Thirty-Ninth Parliament of Canada". Last accessed 26 April 2014. <http://www.parl.gc.ca/Parlinfo/Documents/ThroneSpeech/39-2-e.html>

related challenges he cautions, cannot be considered as isolated issues or stove pipes, but as all-encompassing and interdependent problems requiring a comprehensive approach to strategy based upon four priority areas or pillars which he describes as; *Exercising our Arctic sovereignty; Protecting our environmental heritage; Promoting social and economic development and Improving and developing Northern governance.*⁴

The Four Pillars – National Strategic Objectives

As described in several literary works on public policy and strategy formulation, there exists a general consensus that a “public policy can be defined as a course of action (or non-action) taken by a government with regard to a particular issue.”⁵ Similarly, academics also recognize strategy formulation as a process of selecting the most appropriate course of action for the realization of organizational goals and objectives and thereby achieving the organizational vision. One of the key components of any strategy statement is to set the long-term objectives of the organization.⁶ As stated in the United States Army War College’s Guide to National Security Issues, Volume II, “defining the objective (end), therefore, is a critical first step in the strategy formulation process.”⁷ From this perspective, in articulating Canada’s Northern Strategy, the Government of

³ John Kozij. “Canada’s and Europe’s Northern Dimensions: Canada’s Northern Strategy”. Last accessed 26 April 2014. http://www.cci.ualberta.ca/en/Outreach%20and%20Events/CanadasandEuropesNorthernDimen/~/_media/cci/Documents/PagesfromCanadasandEuropesNorthernDimensionsCanadas.pdf. 11.

⁴ Government of Canada. *Canada’s Northern Strategy; Our North, Our Heritage, Our Future*. (Ottawa: Minister of Indian Affairs and Northern Development, 2009).

⁵ Christoph Knill and Jale Tosun. *Public Policy A New Introduction*, (New York: Pallgrave MacMillan, 2012), 4.

⁶ J. Boone Bartholomees. Jr. “Appendix II, Guidelines for Strategy Formulation.” In *U.S. Army War College Guide to National Security Issues, Vol. II National Security Policy and Strategy. 3rd ed.*, (PA: Strategic Studies Institute: U.S. Army War College, June 2008).

⁷ *Ibid*, 279.

Canada established the policy's long-term objectives as "concrete actions"⁸ applied to the four distinct but inter-related pillars. The objectives or actions could be succinctly expressed and described in the following manner: (1) *Exercising our Arctic Sovereignty*, which involves protecting the Far North as international interests in the region, continues to increase. (2) *Promoting Social and Economic development*, which would encourage socio-economic growth benefiting Canadian Arctic indigenous people. (3) *Protecting our Environmental Heritage*, this would necessitate an adjustment to climate change challenges, while ensuring the protection of Arctic ecosystems for future generations. (4) *Improving and Devolving Northern Governance*, which would provide Northerners with greater control over their socio-economic and political future. In essence, the Northern Strategy corroborates a vision for the North that integrates an increased military presence with building healthier communities, protecting the environment, and diversifying the regional economy.

Arctic Sovereignty – Defending a myth or a reality?

As depicted in Canada's Northern Strategy policy document, the four aforementioned pillars are said to be "equally important and mutually reinforcing priorities"⁹; however, Prime Minister Harper has placed Arctic sovereignty as his government's first foreign policy priority. As described in the Statement on Canada's Arctic Foreign Policy, which further reiterates the policy dimensions and pillars,

⁸ Government of Canada. *Canada's Northern Strategy; Our North, Our Heritage, Our Future*. (Ottawa: Minister of Indian Affairs and Northern Development, 2009).

⁹ Government of Canada. *Canada's Northern Strategy; Our North, Our Heritage, Our Future*. (Ottawa: Minister of Indian Affairs and Northern Development, 2009).

“exercising sovereignty over Canada’s North, as over the rest of Canada, is our number one Arctic foreign policy priority.”¹⁰ In essence, exercising sovereignty becomes a prerequisite in order to fully realize the potential of Arctic resources, protect the environment and provide good governance to Northerners. There probably exist several myths and fewer realities regarding the sovereignty of Canada’s Far North. However, myths purveyors were silenced in 2007, when Russian Arctic scientist Artur Chilingarov planted a Russian flag at the North Pole. As described by Rob Huebert, associate director of the Centre for Military and Strategic Studies at the University of Calgary, “this is clearly a message to Canada that the Russians see the North Pole as theirs.”¹¹ Mr. Huebert further reiterates that “Canadian officials need to note that the Russians will play hardball on this issue and should be prepared for such actions.”¹² In essence, defending Canadian Arctic sovereignty is not solely to be able to define the borders and the international legal status of the Canadian North, although necessary, but rather, defending Canadian Arctic sovereignty concerns the overall control of the area. To fulfill its role in exercising sovereignty, it is imperative for Canada to possess adequate capabilities to monitor the Arctic and, additionally, to enforce its authority over Arctic land, air and sea.

¹⁰ Government of Canada. *Statement on Canada’s Arctic Foreign Policy Exercising Sovereignty and Promoting Canada’s Northern Strategy Abroad*. (Ottawa, 2010)

¹¹ Rob Huebert, “Is Canada ready for Russia’s hardball approach to the North Pole?”, Last Accessed 27 April 2014. <http://www.theglobeandmail.com/globe-debate/is-canada-ready-for-russias-hardball-approach-to-the-north-pole/article16604726/>

¹² *Ibid.*

Search and Rescue Capability Assessment – The “Have”

A large issue facing the Government of Canada in meeting one of its Northern Strategy policy objectives, exercising sovereignty, is Canada’s SAR capabilities in the Arctic. Canada’s SAR capacity remains woefully inadequate at a time when the transit through the Arctic waters is increasingly becoming a normal occurrence. The growth in transnational ship movements coupled with the increased development of research programs for Arctic resources and eco-tourism, all result in more traffic through our Arctic waters, landmass and airspace. The increased human presence in the Arctic can only result in an increased demand on the already limited CAF SAR resources. With one of the world’s largest and most challenging SAR area of responsibility, maintaining Canada’s Northern Sovereignty commitment is no small feat.¹³ As described in the December 2013 edition of the Quadrennial Search and Rescue Review:

The Canadian Armed Forces is responsible for aeronautical Search and Rescue anywhere within Canada’s designated area of responsibility and for the effective operation of the coordinated aeronautical and maritime SAR system.¹⁴

Clearly articulated in the review, a high readiness SAR capability is a very important component enabling the federal government to fulfilling its SAR responsibilities, including being a crucial enabler to exercising Arctic sovereignty.

By virtue of geography, Canada has one of the world’s largest, most diverse and challenging areas of SAR responsibility. In fact, the Canadian SAR area of responsibility,

¹³ Canada. Department of National Defence. *Federal Search and Rescue Operational Governance Committee Annual Report 2013*. (Ottawa: DND Canada, 2014), 1.

¹⁴ Government of Canada, *Quadrennial Search and Rescue Review*, December 2013, (Ottawa, 2013)

as assigned by International Conventions, encompasses eighteen million square kilometers of land and water. The area of responsibility boundaries extend from the United States border to the North Pole, eastward over the Atlantic Ocean to thirty degrees west longitude (approximately half way to the UK) and westward over the Pacific Ocean approximately six-hundred nautical miles west of Vancouver Island. Each year, the Canadian Joint Rescue Coordination Centre handles an average of nine thousand four hundred air and marine Search and Rescue cases resulting in the SAR aircraft of the Royal Canadian Air Force (RCAF) conducting well over one thousand missions per year.¹⁵ No two SAR operations are identical and consequently the appropriate assets to respond to each incident will differ. The RCAF must maintain both fixed-wing and rotary-wing air assets, ensuring the necessary flexibility to respond to the wide array of SAR incidents that arise across the Canadian area of responsibility. The map below illustrates the Canadian SAR area of responsibility.¹⁶

¹⁵Canada. Department of National Defence. *Federal Search and Rescue Operational Governance Committee Annual Report 2013*. (Ottawa: DND Canada, 2014), 13.

¹⁶ Government of Canada, *Quadrennial Search and Rescue Review*, December 2013, (Ottawa, 2013), 5.



Successful SAR operations rely on, among other factors, having the right capabilities at the right time. These capabilities include the right equipment, highly-skilled personnel, a quick response posture, appropriate location of SAR resources, and flawless procedures. No other agency outside the CAF has the aircraft or the trained and equipped rapid-response Sqn teams required to carry out an airborne rescue mission in remote territory. Most of Canada consists of terrain that requires such capability, ready to deploy on thirty minutes' notice.¹⁷ To accomplish its federally assigned mandate, the CAF SAR assets include the following fixed and rotary wing aircrafts: 14 x CC130H Hercules aircraft, 6 x CC115 Buffalo aircrafts, 14 x CH149 Cormorant helicopters and 5 x CH146 Griffon helicopters. The above listed aircraft are multi-role, which implies having only a selected number of each aircraft type assigned for primary SAR standby duties at any

¹⁷ Canada. Department of National Defence, *Canadian Joint Operations Command SAR Directive 01-2014*, 3/11.

given time.¹⁸ As depicted in the illustration above, these air assets and crews are strategically located across Canada and divided amongst five primary SAR Squadrons with bases in Gander, Newfoundland, Greenwood, Nova Scotia, Trenton, Ontario, Winnipeg, Manitoba and Comox, British Columbia. SAR crews and their applicable aircraft are pre-positioned for daily responses within a thirty minute readiness posture, which is maintained forty hours each week. The remainder of the time, SAR crews, as described in the Quadrennial Review, “are to be airborne within 2 hours (as the aircrew may not be on base).”¹⁹

Search and Rescue Capability Gaps – The “Have Not”

In an article written by seasoned reporter Murray Brewster, who is also a Parliamentary defence reporter and senior war correspondent for the Canadian Press, cites a defence report formulated by the Defence Science Advisory Board in April 2012, “27 Search and Rescue incidents in the North since 2009 [...] exposed glaring weaknesses, including the limited number of military and civilian aircraft available to respond to emergencies over the vast open territories.”²⁰ The ability to operate in Arctic weather and terrain conditions is a major constraint, which was recently made evident in January 2012, when a young Inuit boy became lost on the ice in Labrador and the CAF were unable to respond. As reported by Canadian Broadcasting Corporation’s award winning reporters, Rob Antle and Lee Pitts, “a search from the air took days because of problems

¹⁸ Government of Canada, *Quadrennial Search and Rescue Review*, December 2013, (Ottawa, 2013), 12.

¹⁹ *Ibid.*

²⁰ Murray Brewster, “Stephen Harper on hot seat over ‘glaring weaknesses’ in country’s Arctic rescue system, equipment shortages”, Last Accessed 28 April 2014. <http://news.nationalpost.com/2013/08/20/stephen-harper-on-hot-seat-over-glaring-weaknesses-in-countrys-arctic-rescue-system-equipment-shortages/>

with weather, mechanical problems with military aircraft, and because of search and rescue policies.”²¹ These unfortunate incidents resulted in the death of the boy.

Regrettably, the current SAR capabilities have not improved over the last two decades. Canada remains without primary SAR assets pre-positioned in the Arctic region and has very limited infrastructure, such as airfields, road networks and aviation fuel resupply capability in the North.²² Current fixed-wing and rotary-wing SAR aircraft that the CAF personnel rely on to coordinate life-saving activity have either become obsolete or lack essential capabilities. With our long-range helicopters based in British Columbia, Nova Scotia and Newfoundland, each aircraft would take more than a day to fly the two thousand five-hundred kilometers to the Northwest Passage, stopping to refuel along the way. As a point of comparison, Russia has several SAR stations in the Arctic and is building ten more – each with its own ships and aircraft.²³

SAR personnel are still meeting minimal standards of readiness; however, the aging fleet of fixed-wing aircraft, i.e. CC-115 Buffalo and CC-130H Hercules can barely be maintained serviceable in order to meet Canada’s SAR readiness posture. The Department of National Defence has had difficulty sustaining its SAR aircraft at the level necessary to respond to incidents effectively and attempts to mount and maintain even small Arctic operations has proven difficult. As reported by Collin Kenny, who is the former Chair of the Senate Committee for National Security and Defence, citing the

²¹ Rob Antle, Lee Pitts, “A year after tragedy, search-and-rescue doubts persist”, Last Accessed 27 April 2014, <http://www.cbc.ca/news/canada/newfoundland-labrador/a-year-after-tragedy-search-and-rescue-doubts-persist-1.1319865>

²² Tony Balasevicius, “Towards A Canadian Forces Arctic Operation Concept”, *Canadian Military Journal*. Vol 11, No2 Spring 2011, 26.

²³ Trude Petterson, “Russia to have ten Arctic rescue centers by 2015”, Last Accessed 27 Apr 2014, <http://barentsobserver.com/en/topics/russia-have-ten-arctic-rescue-centers-2015>

Auditor General's report that, "the Royal Canadian Air Force's continued use of older airplanes that require extensive maintenance and of helicopters that are either insufficient in number or less capable of responding to incidents."²⁴, is severely impacting the CAF's ability to meet not only its Northern policy strategic objective of exercising its Arctic sovereignty, but also its mandate to deliver aeronautical and maritime SAR. More specifically, Canada's fleet of fixed-wing platforms upon which SAR personnel rely on to coordinate life-saving activity is on the verge of breaking down. The CC-130H Hercules lack modern SAR sensors and equipment, and are over twenty years old. Its maintenance is time-consuming and expensive, and two planes have recently received new wings to keep them flying. As described by former Chief of Defence Staff, General Rick Hillier when he provided comments to the Defence Industry Daily in 2005 stated that:

Our [CC-130 E/H] Hercules fleet right now is rapidly going downhill. We know that three years [...] the fleet starts to become almost completely inoperational and we will have to stop supporting operations – or else, not be able to start them.²⁵

The Hercules aircraft are also required for transport operations, so they are not always available to conduct SAR missions. In addition, the forty-five year old fleet of CC-115 Buffalos cost an approximate twenty million dollars per year to maintain, and will require new engines if the RCAF plans to fly this platform past 2015. In 2011, CC-115 Buffalos

²⁴ Collin Kenny, "Canada's Search and Rescue dodge", Last Accessed 28 April 2014, <http://fullcomment.nationalpost.com/2013/05/13/kenny-for-monday/>

²⁵ Defence Industry Daily, "Replacing Canada's Falling CC130: 17 CC130Js", Last Accessed 27 April 2014, <http://www.defenseindustrydaily.com/canadas-cc130s-to-fail-in-3-years-4b-rfp-for-replacements-updated-01529/>

were unavailable for SAR missions on one hundred nineteen occasions, and in five of these cases, there were no SAR replacement airplanes to perform the mission.

The rotary-wing platforms, the CH-149 Cormorant and CH-146 Griffon, also face issues and challenges. Both fleet either lack range or payload or also have serviceability issues. The current Estimated Life Expectancy for the CH-149 Cormorant fleet is 2025. However, there have been significant maintenance issues, which are associated with limiting aircraft availability.²⁶ In addition, it was never the RCAF's intent to have CH-146s operating as the primary rotary-wing SAR aircraft in many locations across Canada. This situation was further complicated by the subsequent loss of one CH-149 airframe in 2006. As such, the CH-146 still remains the interim solution for rotary-wing SAR at many locations. There is an elevated risk level associated with using the CH-146 in place of the Cormorant, due to its limitations in range, size, power and equipment deficiencies, but more specifically, its lack of de-icing capability and lack of radar equipment, which could prove disastrous in Arctic conditions.

SAR is a no-fail mission for the CAF and in the face of one of the most challenging SAR area of responsibility in the world, the Government of Canada must maintain a multiple and complementary fleet of airframes, both fixed-wing and rotary-wing across Canada if we are to maintain and exercise our Arctic sovereignty.²⁷ The current fleets of fixed-wing aircrafts are challenged to meet SAR readiness postures. This coupled with capability and maintenance issues, the rotary-wing fleet will require to be

²⁶ *Ibid.*

²⁷ Canada. Department of National Defence. *Federal Search and Rescue Operational Governance Committee Annual Report 2013*. (Ottawa: DND Canada, 2014), 22.

carefully managed to ensure that the RCAF can meet its mandate of providing effective and timely SAR services to Canadians.

Search and Rescue Capability Enhancements – The Way ahead

In order to improve its force structure for efficient and timely response to SAR incidents in the Arctic territories and meet the Government of Canada's primary Northern policy objective of exercising Sovereignty, the CAF should focus on two critical capabilities. First, it should center its efforts in developing and enhancing its ability to partner with other Canadian government agencies, such as the Canadian Coast Guard and the Royal Canadian Mounted Police. Reporter Murray Brewster, while highlighting issues brought forward by the Defence Science Advisory Board report, states that:

While the Canadian Coast Guard and the RCMP have significant roles to play in an Arctic crisis, they are sometimes not on the same page as National Defence [...] a lack of integration could hinder an effective response to a crisis emergency.²⁸

In essence, increasing interoperability and developing a whole-of-government approach to the complex SAR issues faced in the Arctic environment, can only lead to expanding the Canadian government's capacity in exercising its Northern sovereignty. In addition to pursuing a whole-of-government approach to SAR efforts, the CAF should also aggressively continue to engage in collaboration with other Arctic Nations in developing joint SAR agreements, including multilateral exercises to overcome capability gaps. Exercises such as Search and Rescue Exercise (SAREX) Greenland Sea 13 and Operation

²⁸ Murray Brewster, "Stephen Harper on hot seat over 'glaring weaknesses' in country's Arctic rescue system, equipment shortages", Last Accessed 28 April 2014. <http://news.nationalpost.com/2013/08/20/stephen-harper-on-hot-seat-over-glaring-weaknesses-in-countrys-arctic-rescue-system-equipment-shortages/>

Nunaliut serve to foster interoperability between Nations, but also aid to close the capability gap existing with our current fleet of aircraft in responding to SAR incidents in the Arctic. The latest SAREX Greenland Sea 13, which took place on 2 to 6 September 2013 was hosted by Denmark and served to recreate a maritime disaster and response scenario that involved four of the eight Arctic Council member states: Canada, Denmark, Iceland and the United States. Operation Nunaliut which also serves to meet the Canadian Government's Arctic policy objective in exercising sovereignty has been conducted annually since 2007. This operation which involves CAF members and their American counterparts provides Canada and the United States an opportunity to demonstrate and further develop interoperability. As described by Lieutenant Colonel Clifford Souza, Officer in Command of the 109th Airlift Wing of the New York Air National Guard, who participated in Operation Nunaliut in April 2014, "this operation shows interoperability and integration between the U.S. and Canada to jointly develop capabilities for the future to operate in the Arctic."²⁹ In essence, developing and nurturing a cooperative approach with our Arctic military allies will allow the CAF greater force projection in the Arctic and the capacity to respond to any situation in the North.

Conclusion

There exist unequivocal gaps in the CAF's capability to quickly respond to Arctic SAR incidents, which diminishes our ability to meet Canada's Arctic policy objective of exercising sovereignty in the North. Canada's Northern Strategy, announced by the

²⁹ Catharine Schidt, Tech Sgt. "U.S. And Canadian Forces Work Together in Arctic" Last Accessed 10 April 2014, <http://blogs.ottawacitizen.com/2014/04/09/u-s-and-canadian-forces-work-together-in-arctic/>

Harper Government in 2009, was briefly described and analyzed. This short analysis served to identify that the Northern Strategy was formulated around four basic pillars, representing the policy's strategic objectives, i.e. sovereignty, economic and social development, environmental issues and good governance. Focus was placed on the Northern Strategy policy document, which identified one of the priority areas forming the comprehensive strategic approach to Canada's Arctic policy as exercising Arctic sovereignty. Within this context, the inherent challenges in the development and maintenance of SAR capabilities were briefly examined, through an analysis of current SAR resource capabilities. It was established that the effective delivery of SAR in the Arctic remains a domestic issue facing the Government of Canada and its Northern strategy policy objective of exercising sovereignty. Lastly, solutions in improving SAR capabilities were proposed through favouring a whole-of-government approach and developing joint SAR agreements, including multilateral exercises. The North is a fundamental part of our identity and our heritage. Canada's Northern Strategy is an important document identifying the Canadian government's commitment to preserving this landmass, its resources, and its people. Projecting Arctic SAR capability remains a challenge; however, in every challenge hides a great opportunity.

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