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NORTHERN EXPOSURE: CANADA'S MARINE SECURITY FRAMEWORK – THE SECURITY CHALLENGE IN THE CANADIAN MARITIME REALM

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***Northern Exposure: Canada's Marine Security Framework –
The Security Challenge in the Canadian Maritime Realm***

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ABSTRACT

The acts of terrorism on September 11, 2001 have precipitated a new era in Canada's national security approach. With the release of *Securing an Open Society: Canada's National Security Policy*, Canada has successfully established an effective, horizontal, whole-of-government framework to address maritime security threats that challenge the nation's security from Canada's seaward approaches.

The new security framework focuses on the foundation policies for maritime specific activities and the associated strategies that are now in place to delineate their execution. The Marine Security Operations Centres (MSOC) Project is the core enabler for the whole-of-government approach to national security in the maritime domain and represents the cornerstone to the marine security framework for the government of Canada and key stakeholders.

Along with the efforts to strengthen security in the maritime domain, challenges still remain for the framework to be fully realized. The new construct gives rise to obstacles when working in the whole-of-government approach with issues related to current legislation and information sharing concerns associated with interdepartmental co-operation. In addition, the arctic region in Canada's north offers a potential new vulnerability to marine security with the onset of global warming and climate change.

Despite these challenges, Canada has built an integrated marine security system that ensures all necessary government resources for the maritime domain may be brought to bear in a coordinated way to protect Canadians and Canadian interests.

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INTRODUCTION

Canada is a country with some influence on the global stage as a prosperous, sovereign nation whose development since its creation has been largely predicated on its unique and expansive geography. Surrounded by three oceans, Canada has one of the largest, most complex transportation systems in the world, giving rise to profound security challenges, most notably in the maritime domain.¹ The marine sector is a critical component to Canada's overall transportation system, supporting a vital trade gateway that connects Canada to the rest of the world. This unique maritime area is a vital environment contributing to Canada's commerce, communication within the country, facilitating trade, and linking Canada to its economic partners abroad.

Sparsely populated and situated between the United States (US) to the south and the Arctic to the north, Canada has long reaped the benefit of geographic isolation from the rest of the globe. Following the Second World War, Canada capitalized on the bipolar stability of the Cold War and cooperated with the US to protect against potential Soviet threats. The newly formed global stability shaped the foundation for Canada's

¹The *maritime domain* is defined as all areas and things of, on, under, relating to, adjacent to, or bordering on the sea, ocean, or other navigable waterway, including all maritime-related activities, infrastructure, people, cargo, and vessels and other conveyances. *Maritime domain awareness* is the effective and comprehensive understanding of all factors associated with the maritime domain that could impact security, safety, the economy, or the environment. United States of America. National Security Presidential Directive (NSPD-41), Homeland Security Presidential Directive (HSPD-13), Maritime Security Policy Memorandum, 21 December 2004; available from <http://www.fas.org/irp/offdocs/nspd/nspd41.pdf>. Internet accessed 27 January 2011, 5.

political and security interests, leveraging the inherent assurance of protection based on the Cold War construct.²

Five decades later, the collapse of the Soviet Union and the end of the Cold War marked the beginning of a new era for continental and hemispheric protection. The assurance of global stability inherent with the Cold War détente between the US and the Soviet Union dissolved giving rise to a new world order. Accentuated trends and the onset of globalization created new unconventional pressures, transformed cultural ideals and introduced a new spectrum of threats to global security. The new global environment necessitated a paradigm shift to the fundamental protection of national interests, defence and domestic securities in the changing tapestry of the post-Cold War world.

Historically, Canada has long embraced an open society approach to domestic security with great emphasis on the rights and freedoms of its population, thus shaping its core values of a distinctly free democratic society. By the turn of the 21st century, Canada's inability to change with the changing global threat environment resulted in a significant period of domestic vulnerability. Canada's posture to national security was reflective of the Cold War era and was lacking in depth, consistency and organization. The terrorist attacks in the US on September 11, 2001 highlighted Canada's need for change in order to meet the modern-day threat environment and to address domestic security concerns. These attacks acted as a catalyst for the government of Canada to initiate change that would protect its open society.

²Stairs, Denis, David J. Bercuson, Mark Entwistle, J.L. Granatstein, Kim Richard Nossal, and Gordon S. Smith, *In the National Interest: Canadian Foreign Policy in an Insecure World* (Ottawa, ON: Canadian Defence and Foreign Affairs Institute, 2003), 1.

The maritime environment was seen as one area of considerable importance to address national security deficiencies as “...Canada’s marine system includes some 200,000 kilometres of coastline, extends 200 nautical miles out from the coastline, and stretches 3,700 kilometres into the heart of the continent via the Great Lakes/St. Lawrence Seaway system.”³ It is estimated that the value of Canadian trade in the maritime realm is approximately \$100 billion from the total global estimate of \$740 billion per year, and Canada’s maritime industry directly employs some 30,000 people, while generating an average annual revenues of \$2.6 billion. Moreover, Canada’s primary international trading partner is the US, with an annual exchange of goods amounting to approximately \$400 billion per year. This North American trade relationship is one of tremendous economic necessity that depends on a relatively open border which, fundamentally relies on the security of the North American approaches, both by land and by sea.⁴ Without question, Canada’s economy and trade structure rely heavily on the ocean approaches, making the maritime realm a critical domain of domestic importance.

Trade and the exchange of goods are reliant on the vast infrastructure to support the transition from sea to land. Canada’s coastline is dotted with over 250 ports, which negotiate some 3.5 million sea containers of goods on an annual basis. These ports are considered critical hubs to the continental transportation infrastructure; imported goods enter Canada to be dispersed throughout North America and exported goods commence their transoceanic voyages to foreign markets. It is estimated that 4000 foreign vessels

³Department of National Defence, *Strategic Issues – Domestic Marine Security: Enhancing the Security of Canada’s Marine Transportation Station* (Ottawa, ON: Government of Canada; available from http://www.navy.forces.gc.ca/cms/10/10-a_eng.asp?id=301. Internet; accessed 25 January 2011).

⁴*Ibid.*

greater than 500 tonnes enter Canadian ports annually with approximately 100 Canadian-registered vessels greater than 500 tonnes depart for international destinations. Canadian ports also support the cruise ship industry with over 1.5 million cruise ship passengers arriving in Canada annually. As well, “Canada has 10 international ferry terminals, 19 interprovincial terminals and nearly 300 intra-provincial terminals providing vital links both within and between the provinces. Canada’s ferries carry an estimated 40 million passengers and 17 million vehicles each year.”⁵ This web of transportation nodes and systems accentuate the maritime realm for Canada making it far more complex than simply three ocean approaches. The complete canvas of Canada’s maritime domain is a combination of area and supporting networks which are considered vital to the Canadian national interest.⁶

The attacks of September 11, 2001 and subsequent terrorist attacks on peaceful countries over the past decade have precipitated a new era in Canada’s national security approach. With the release of *Securing an Open Society: Canada’s National Security Policy* on April 27, 2004, Canada has adopted a new integrated, *whole-of-government* comprehensive approach to security issues across the federal government sector, and has provided a strategic framework created to ensure that Canada is prepared for, and is able to respond to current and future threats. The first-ever policy of its kind in Canada, the National Security Policy (NSP) encompassed a new model to address national security threats of any scope, and one that can adapt to changing circumstances that

⁵Department of National Defence, *Strategic Issues – Domestic Marine Security: Enhancing the Security of Canada’s Marine Transportation Station ...*

⁶*Ibid.*

normally require a national response beyond individual agency or department, organization or provincial authority to address alone.⁷

Until 2001, attention in the maritime domain in Canada was largely focused on the safe and effective movement of marine traffic. The 9/11 attacks initiated a reassessment of the vulnerabilities to the international transportation system of many countries. Today, the Canadian maritime domain is subject to a number of potential security threats and challenges based on its size and importance to domestic lines of communication and trade. To this end, the government of Canada has made significant investment to enhance national security in all areas, including that in the maritime realm.

As a large coastal state with maritime interests, Canada has introduced new efforts in addressing these potential security concerns and associated risks they pose to Canadians from the nation's three ocean perimeter. Since the introduction of the 2004 NSP, Canada has successfully established an effective, horizontal, whole-of-government framework to address maritime security threats that challenge the nation's security from Canada's seaward approaches. This framework has been accomplished to address the current-day security threats and to reassure the hyper security-conscious US. By being prepared to meet any potential or real threat in the maritime sphere, Canada both improves domestic national security and the security of North America with a continental approach to counter ensuing threats.

Given the importance of the federal government organizations tasked with maritime responsibilities, there have been, and continue to be, significant expectations

⁷Privy Council Office, *Securing an Open Society: Canada's National Security Policy* (Ottawa, ON: Government of Canada, April 2004), ii.

within the federal government sector to exercise a robust post-9/11 marine security regime. The new security framework that has been established since 2004 focuses on the foundation policies for maritime specific activities and the associated strategies that are now in place to delineate their execution. The Marine Security Operations Centres (MSOC) Project represents the core enabler for the whole-of-government approach to national security in the maritime domain and represents the cornerstone to the marine security framework. The MSOC now fill a void in the once vulnerable national security matrix and embody Canada's commitment to the protection of North America.

Today, maintaining security in Canada's maritime environment requires a comprehensive, cooperative and integrated federal response that is horizontal by its very nature.⁸ Despite the efforts to strengthen security in the maritime domain, challenges still remain for the framework to be fully realized. The new construct gives rise to obstacles such as issues with current legislation and information sharing associated with interdepartmental cooperation. Jurisdictional gaps and mandate overlaps in the whole-of-government construct are inherent issues amongst government organizations, and the Arctic region in Canada's north offers a new vulnerability to marine security with the onset of global warming and climate change. Despite these challenges, Canada has built an integrated marine security system that ensures all necessary government resources for the maritime domain have the ability to be brought to bear in a coordinated way to protect Canadians and Canadian interests.

⁸*Horizontal* refers to collaborative activities across agencies or departments of government, also referred to as being joined-up government or whole-of-government approaches.

CHAPTER 1: CANADA'S MARINE SECURITY FRAMEWORK

The concept of national security of any given nation state depends upon the will of its citizens and the inherent ideologies of its government. Canada's approach to national security has evolved in the face of real and perceived threats. The country has the luxury of geographic isolation and during the century and a half since Confederation, engaged in external conflicts on its own terms. Canada's earliest security threat was from the US and the American desire to achieve Manifest Destiny by expansion and the desire to potentially own all of continental North America.⁹ The second, more recent, was the threat of invasion by the Soviet Union over the Arctic region and the potential for nuclear armageddon which led to an eventual nuclear détente and the Cold War.¹⁰

In the last decade of the 20th century, following the end of the Cold War, Canada adopted a new approach to national security to address the changing global climate and the multi-polar order that emerged. The first fundamental shift from the Cold War system of protection was in the form of the 1995 foreign policy white paper entitled *Canada in the World*, highlighting that Canada's security remained a fundamental responsibility of its government.¹¹ Canada needed to reorganize its defences from the Cold War model to one that focused on terrorism, crime, smuggling,

⁹The cross border incursions from the US into Canada were executed in the form of Fenian raids and invasion of Upper and Lower Canada in 1812-13. Desmond Morton, *A Military History of Canada: From Champlain to Kosovo, 4th ed.* (Toronto, ON: McClelland and Stewart, 1999), 77, 89-90.

¹¹Department of Foreign Affairs, *Canada in the World* (Ottawa, ON: Government of Canada, 1995; available from http://www.dfait-maeci.gc.ca/foreign_policy/cnd-world/chap4-en.asp. Internet accessed 13 February 2011).

illegal drugs, pollution, disease, overpopulation and refugees. In the new global environment, these became the legitimate threats that needed to be countered. Canada found itself poorly prepared to deal with the new security environment of the 1990's. As a result, national security became a priority for the Canadian government in an attempt to satisfy the emergent security gap.¹²

The 1995 white paper was the beginning of a new national security posture for Canada which addressed the new emerging threats. This strategic document established security as a key national policy objective and it guided the federal government to make fundamental changes to its national priorities. No longer could Canada rely on American protection in the guise of the Cold War; Canada sought to expand its projection of power and establish a national security posture sufficient to protect its own interests to emerge as an independent state capable of protecting its own national interests. As the country moved into the 21st century, the Canadian government recognized that “[the nation] faces new and more complex [threats to security], ... [t]he September 11, 2001 attacks [being] a powerful example.”¹³ The events of 9/11 gave rise to a new transformational approach to national security and a national framework to delineate the new posture. The framework reflects a broad view to security, and pays particular attention to marine security and possible threats to Canada in the maritime domain in order to better guarantee the safety of North America, the integrated continental economy, and Canadian society.

¹²Andrew Cohen, "Canada in the World: The Return of the National Interest," in *Behind the Headlines*, Vol. 52, No. 4 (Summer, 1995), 7.

¹³Privy Council Office, *Securing an Open Society: Canada's National Security Policy* (Ottawa, ON: Government of Canada, April 2004), 1.

MARINE SECURITY

Any country with sea frontiers faces certain challenges in securing its maritime security, not least of which is unwelcome intrusion or direct attack. For any coastal state with maritime interests, marine security is of the utmost importance and it can be defined as "...the freedom from threat to national interests in, on, over and concerning the sea."¹⁴ To further build on this definition, marine security can be viewed as being a mixture of both reactive and proactive activities. The reactive activity is threat-based in that the security it represents is achieved when threats to various maritime interests have been neutralized, or when the maritime domain is free from threats to national interests. In contrast, the proactive activity is capability-based in that security is achieved when the state in question has a comprehensive framework in place and the capacity to respond to potential threats effectively. The former concept of security is an acceptable approach to counter threats that are few in number, and threats that are easily identified for which mitigating strategies can be developed.

Canada was fully integrated into western alliance and continental defence plans during the Cold War to protect North America from attack. The disappearance of the direct military threat marked by the end of the Cold War, however, did not lessen the need for securing the North American continent from other threats. The post-Cold War environment sparked the need for a more rigorous security structure, and a capability-based national maritime system which addressed security, sovereignty and the overall framework for ocean management.

¹⁴Francois N. Baillet, Fred W. Crickard, and Glen J. Hebert, *Integrated Maritime Enforcement: A Handbook* (Halifax, NS: Centre for Foreign Policy Studies, 1999), 9.

Marine security, sovereignty and ocean management are aspects of the maritime domain that are connected in profound ways. Success in marine security for any state can be accomplished by comparing the resources available with the responsibilities that the state acknowledges to possess. The maintenance of a state's national security directly relate to its ability to influence and control what happens in its own maritime realm. In addition, security implies a choice, as a nation must acknowledge the level of security it maintains, in addition to accepting the inherent responsibility to act. Canada has much success in securing the vast three-ocean approaches that bound the majority of its land mass. That said, in comparing resources available to area of responsibility, Canada's ability is stretched with its available resources to achieve influence and claim control.¹⁵

In order to achieve influence and control over its maritime environment, a state must have the ability to counter potential threats to its security. Bailet, Crickard and Herbert, in their work entitled *Integrated Maritime Enforcement: A Handbook*, identify five distinct areas of maritime activity that require attention for a state to maintain overall maritime control and effective security, which directly relate to Canada in its development of maritime strategy for domestic security. These areas are prevention of illegal activity, maintenance of sovereignty, management of marine resources, marine safety, and preservation and protection of the marine environment.

The five areas represent a complete spectrum of activities that could threaten Canada in the maritime domain. The prevention of illegal activity represents the enforcement of national law as a tenet to statehood. Maritime activities which potentially fall into this category include piracy, terrorism, drug smuggling, illegal

¹⁵Bailet, Crickard, and Hebert, *Integrated Maritime Enforcement: A Handbook...*, 9.

migration, and a range of other offences captured within national and international law. A coastal state must have a national legal construct to enforce the law, as well as a good intelligence and response capability, to control the maritime area of national interest. Canada has a robust legal structure and constabulary ability to address adequately this aspect of marine security.¹⁶

In terms of the maintenance of sovereignty, Canada has strong presence and surveillance capacity to project national interests in two of the three ocean approaches. An absolute requirement to satisfy this area of security is the effective occupation of national territory. The preservation of sovereignty over national maritime domain and the prevention of unauthorized use of that domain is a necessity of a coastal state. Control in the domain is thus obtained through the establishment of a deterrent enforcement capability. Canada claims to have this in both the Atlantic and Pacific areas of responsibility, however falls short in the Arctic region. That said, the harsh landscape and cold climate deter activity, but this restriction will alter with the anticipated drastic effects of global warming and climate change.¹⁷

Canada also has a structured national mechanism to oversee the management of maritime resources. The sustainable exploration and exploitation of maritime resources, both living and non-living, is a considerable activity in Canada's maritime domain. Its effective control in Canada's marine environment is a requirement of international law, and as such is in the national interest. Various means of data acquisition, analysis, regulations limiting activity, enforcement of regulations, and their coordination are necessary as they contribute to economic development and future

¹⁶Bailet, Crickard, and Hebert, *Integrated Maritime Enforcement: A Handbook...*, 11.

¹⁷*Ibid.*

potential development. The coordination efforts concerning maritime resources have linkages to marine security, thus their importance to the national security matrix are high.¹⁸

In terms of marine safety, Canada follows international law, as well as generally established humanitarian practices, to ensure the safety of life at sea, and to render its waters safe for navigation. Canada exercises control in this area through the prediction of hazardous conditions, through the maintenance of safe waterways and presence of aids to navigation, through the enforcement of marine safety standards, and through the possession of emergency rescue capability for distress at sea responses. In essence, Canada has a robust marine safety element as a responsible coastal state to render legitimacy over the vast ocean area of responsibility.¹⁹ Canada also lays claim to a well established national program with regulatory policy concerning the protection and preservation of the maritime environment. Of critical concern is degradation of the maritime environment as a result of economic development, exploration and exploitation activities. Canada's control in this area is achieved by embracing the importance of the maritime environment and the use of data acquisition, historical analysis, the maintenance of regulations, the enforcement of standards, and the response capability to address possible environmental emergencies.²⁰

Overall, maintenance and control over these broad areas represents the challenge associated with the maritime realm and highlights the necessity for any coastal state with maritime interests to have a robust strategy to counter threats in the

¹⁸Baillet, Crickard, and Hebert, *Integrated Maritime Enforcement: A Handbook...*, 11.

¹⁹*Ibid.*, 12.

²⁰*Ibid.*

maritime domain in order to be truly effective. While it is impossible to inventory every possible threat to Canadian marine security, the broad areas of vulnerability listed above provide a conceptual synopsis of potential threats to the Canadian maritime domain. Canada is presented with a number of clearly identifiable security issues with a distinct maritime dimension. In order to be an effective coastal state with maritime interests, Canada should control its seaward approaches and project ownership of its territorial waters and Economic Exclusive Zone (EEZ). Canada has legitimate capability in response to all five areas in the maritime domain, which ultimately becomes the fundamental structure to a national marine security framework.

Despite Canada's commitments to meet the challenges of marine security, following 9/11, the government of Canada acknowledged that the world had changed again and further security measures were required to protect its citizens. A more integrated approach emerged with the National Security Policy (NSP) in 2004, as the first step in the development of a long-term strategic framework to prevent and respond more effectively to national security threats. Canada's NSP marks the first-ever comprehensive policy to encompass national security of its kind in an integrated strategy to address current and future threats.²¹ This new policy addresses most national security concerns, and delineates the magnitude of Canada's three-ocean approaches to give specific direction for creation of a marine specific security framework as an integral part of the larger national security matrix. The new whole-of-government approach addresses issues of national security, with emphasis on the maritime domain.

²¹Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, ii.

CANADA'S NATIONAL SECURITY POLICY

Canada's national security policy is articulated in the 2004 policy document entitled *Securing an Open Society: Canada's National Security Policy* (NSP). Prior to 9/11, Canada was without a formalized security policy or emergency preparedness structure beyond that delineated within Sections 91 and 92 of the *Constitution Act*.²² The NSP articulates an integrated approach to protecting Canada and Canadians in that there is no more important obligation for a government than the protection and safety of its citizens.²³ In pursuing what it means by security of Canadians, the NSP document identifies the guarantee of rights to life, liberty, and security as delineated within Canada's *Charter of Rights and Freedoms*, and establishes the vital correlation between security, national interests and the fundamental values of Canadian society.²⁴ The NSP is a statement of Canada's determination to pursue national security interests and speaks to the relentless pursuit of Canadian sovereignty. The policy reflects far more than physical security; it represents the protection of a distinct way of life for all within Canada's limits of interest and responsibility.²⁵

The NSP encompasses three core national security themes: protecting Canada and Canadians at home and abroad; ensuring Canada is not a base for threats to our

²²Department of Justice Canada, *Criminal Code of Canada, 1985* (Ottawa, ON: Government of Canada, 1985; available from <http://laws.justice.gc.ca/en/c-46/>. Internet; accessed 15 January 2011).

²³Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, ii.

²⁴Department of Justice Canada, *The Constitution Act, 1982* (Ottawa, ON: Government of Canada, 1982; available from <http://laws.justice.gc.ca/en/charter/>. Internet Accessed 14 February 2011).

²⁵Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, 1.

allies (particularly the US); and contributing to international security.²⁶ These core themes of the NSP highlight the concept of protecting Canadian citizens, key Canadian institutions and Canadian sovereignty. Of significant interest is the maritime domain and the unique complexities inherent with the magnitude of Canada's three ocean approaches.

The principle of reciprocity is premised in the idea that Canada will not be a base for threats to allied nations for there is an expectation that other nations will apply the same measures. The NSP's sphere of interest goes beyond continental North America as it specifically addresses distant international affairs that can impact Canada and Canadian interests. The policy provides direction commensurate with the *Charter of Rights and Freedoms*, to protect an open society without eroding the very liberties and values of Canadians. Therefore, with respect to the maritime domain, the NSP acknowledges Canada's responsibility to ensure security is projected to compliment allied nations. Ultimately, Canada's national interests and marine security concerns are predominantly those of its allies, most notably the US.²⁷

THE WHOLE-OF-GOVERNMENT APPROACH

New complex threats to national security in the post-Cold War era have given rise to a different approach to security. In order for Canada to address effectively these new threats, an integrated, whole-of-government framework was outlined in the NSP. Integration allows the Canadian federal government to capitalize on the provision of

²⁶Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, vii.

²⁷*Ibid.*

greater security for Canadians and to optimize coordination and integration efforts within available security expenditures.²⁸ The NSP captures Canada's commitment to providing leadership, resources and structures necessary to achieve a fully integrated security system. This integrated, or whole-of-government approach, gives adequate response to security threats and parallels the newly established national security framework to respond to new emergent threats. This approach to national security maximizes flexibility, while capitalizing on collaboration and cooperation throughout the government sector. This integrated security system is sub-divided into four main elements: threat assessment; protection and prevention capability; consequence management; and evaluation and oversight. These four broad areas address security threats in the maritime realm, capturing mitigation measures, and providing the whole-of-government approach.²⁹

The system also directs efforts to address *consequence management* and Canada's ability to respond to national security incidents in a horizontal manner in order to ensure mitigation action is coordinated. To further enhance this activity, the government of Canada has taken steps to co-locate federal operations centres to ensure officials build strong practices of collaboration while operating collectively during emergencies.³⁰ By addressing consequence management collaboratively, the government will strengthen its capacity to meet its core responsibilities to Canadians and build the emergency management component to the overall national security framework with all key stakeholders that need to be involved. This construct is applied

²⁸Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, 9.

²⁹*Ibid.*

³⁰*Ibid.*

to the maritime domain where the marine security framework is subordinate to the larger national security system.

THE MARINE SECURITY COMPONENT OF THE NSP

Chapter six of the NSP specifically captures the measures needed to address transportation security and specifically national security in the maritime domain. Canada's expansive geography and northern climate dictates a specialized strategy to address marine security in the three-ocean seaward approaches. The country relies upon its maritime transportation network, supporting a vital trade gateway that connects Canada to the rest of the world on either coast. This unique maritime area is a vital environment contributing to Canada's commerce, facilitating trade, and linking Canada to its economic partners abroad.

Within the NSP, the government of Canada launched a six-point plan to bolster marine security, and invest \$308 million from the 2004 Budget security reserve. The six-point plan provided substance to the national security framework at-large and in particular strategic enhancement to the marine security framework and the collaborative whole-of-government approach that the government of Canada has envisioned. The plan provides focus to identified security gaps in the maritime domain and provides solution to identified capability deficiencies that previously existed.³¹

The government of Canada strengthened accountability for marine security amongst the stakeholder departments that have responsibility for securing Canadian waters. Further clarification delineated the Minister of Transportation to take the lead

³¹Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, 38.

role in marine safety and security policy co-ordination, oversight and regulation. The Minister of Public Safety Canada was to continue as the lead in law enforcement and policing, notably the constabular effects within territorial limits. Finally, the Minister of National Defence was directed to take the lead role in co-ordination of on-water response to a marine threat or a developing crisis in Canada's Exclusive Economic Zone and along its coasts. The NSP provided clarity to stakeholder organizations for lanes of responsibility to the immense maritime area of responsibility of Canada's three ocean approaches.³²

The NSP provides governmental direction for creation of the MSOC. The MSOC Project, led by the Canadian Forces (CF) Maritime Command, evolved into centres embracing staff from the five federal government agencies or departments with an organizational mandate in the maritime domain. The organizations being: the CF, Canada Border Service Agency (CBSA), Transport Canada (TC), the Royal Canadian Mounted Police (RCMP), and the Canadian Coast Guard (CCG). Reflecting the approach of the CF and CCG with respect to search and rescue, the MSOC would have the authority and capacity, through interdepartmental staffing, to bring to bear all military and civilian resources required to detect, assess, and coordinate a response to a marine security threat. As well, each MSOC was directed to be networked with the CCG's vessel traffic communications systems, and with the new Government Operations Centre (GOC), under Public Safety in Ottawa. The creation of the MSOC

³²The Department of Public Safety and Emergency Preparedness (PSEPC) was renamed Public Safety Canada (PS) in 2007. For consistency, the paper will use the new departmental title of Public Safety Canada (PS) regardless of timeframe with the exception of quoted material. Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, 38.

solidified the whole-of-government approach in the Canadian maritime domain, and thus provided the foundation for the marine security framework for the nation.³³

The government of Canada presented its commitment to increasing on-water presence to better position departments with maritime assets with secure communications to intervene, interdict and be prepared to board ships that may pose a security threat to Canada – a potential vulnerability to those departments with mandate in the maritime realm. As well, aerial space-based surveillance activities were identified as critical enablers to developing a national maritime picture to fulfill the direction to detect, track and classify vessels in Canadian waters. Based on the magnitude of Canada's three ocean approaches, this activity was identified as critical to ensure adequate surveillance capability achieved necessary coverage and that Canada's maritime area of interest was sufficiently protected.³⁴

Another component of considerable importance to the maritime domain is working bi-laterally with the US to protect and defend the North American coastline and the shared territorial waters. This commitment proposes collaborating to achieve an enhanced security posture in the approaches to North America consisting of vessels and associated infrastructure by conducting common vulnerability or threat risk assessments.³⁵ As well, a co-ordination with the MSOC with similar centres in the US would provide a comprehensive maritime picture tracking vessels operating in the continental contiguous waters. This maritime picture would benefit both nations in efforts to monitor maritime trade routes and movement of goods and services by sea,

³³Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, 39.

³⁴*Ibid.*

³⁵*Ibid.*

thus providing early warning to potential threats to the continent. This cross-border relationship was seen as an improvement to the Canadian marine security framework as it expanded Canada's area of surveillance and promoted information exchange to better enable security endeavours as a whole.³⁶

SUPPORTING MARINE SECURITY POLICY AND OVERSIGHT

In terms of strategic oversight to marine security, several organizational changes were identified within the NSP to facilitate the integrated security system and to provide strategic governance to the national security framework and the subordinate marine security framework of Canada. These changes announced by the government of Canada included the creation of the Ministry of Public Safety and Emergency Preparedness. This new federal department to support the core functions of security, and law enforcement related functions such as intelligence, corrections, border services, immigration enforcement, and emergency management. To compliment this new departmental construct and transformational security-conscious environment, the government created a Cabinet Committee on Security, Public Health and Emergencies to better conduct a whole-of-government response to crisis and to oversee national security initiatives. As well, creation of a National Security Advisor (NSA) to the Prime Minister was instituted to improve co-ordination and integration of security efforts among government departments. This institutional change delineates responsibilities to government organizations to oversee the established federal security system and to advise the government of Canada on the implementation of the national

³⁶Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, 39.

security framework as delineated in the NSP itself. For the maritime domain, the additional layer of whole-of-government oversight strengthens security initiatives among stakeholder organizations and provides stability to the marine security framework of Canada.³⁷

Further oversight organizations and policies now exist to maximize the capability of Canada's integrated security system specific to the maritime domain. As such, a robust structure was created to address marine security developments and to manage the whole-of-government approach it encompasses; these developments included the Interdepartmental Marine Security Working Group (IMSWG), the Federal Emergency Response Plan (FERP), and the Marine Event Response Protocol (MERP). Complimenting the framework now in place for Canada, each element provides focus to policy, organization and co-ordination with all levels of government. As well, specific to the FERP and MERP, these documents provide strategic direction to stakeholder departments when horizontal mitigation strategies or federal government consequence management are needed in response to marine security events.

The IMSWG, which was established following 9/11 by TC, functions as the coordination organization to the government of Canada for all marine security activities. Chaired by TC, the oversight working group comprises 17 federal agencies or departments with a stake in the maritime realm. The role of the IMSWG is to coordinate the collaborative federal response to marine security, analyze the national marine system for security gaps and develop mitigation strategies to address deficiencies.³⁸ Since its creation, the IMSWG has employed members to identify

³⁷Privy Council Office, *Securing an Open Society: Canada's National Security Policy...*, 9.

aspects of Canada's transportation system in the maritime domain that require review, highlight the assessment of security vulnerabilities, incorporate policy mitigation activities specific to the maritime system and monitor the necessities associated with the International Maritime Organization's (IMO) protocols. The IMSWG therefore provides strategic policy oversight for the marine security framework of Canada facilitating the government approach to its broad execution within the federal sector engaging all stakeholders.³⁹

Building on the whole-of-government construct that is inherent to Canada's marine security framework, Canada introduced two additional policy documents that provide direction to all levels of government with respect to marine security events in the vast Canadian three ocean approaches – the FERP and the MERP. The FERP is Canada's "all-hazards" response plan delineating specific roles and responsibilities to participating government organization in response to an emergency or crisis.⁴⁰ The MERP expands the direction as delineated in the FERP, but with enhanced detail specific to the maritime realm. The objective of the MERP is to provide specific strategic guidance for a whole-of-government response to any significant emerging or occurring maritime event affecting Canadian national interests and that transcends the mandate and/or potentially exceeds the capability of any given government organization. In essence, the FERP and MERP provide guidance to stakeholders in the security realm to co-ordinate activities in response to crisis, thus giving structure and

³⁸Transport Canada, *Marine Security Initiatives* (Ottawa, ON: Government of Canada, 19 December 2008; available from <http://www.tc.gc.ca/eng/marinesecurity/policy-enhancing-initiatives-73.htm#domainawareness>. Internet; accessed 12 February 2011).

³⁹*Ibid.*

⁴⁰*Ibid.*

purpose to the marine security framework in place in Canada. The structure, inherent in each document highlights the integrated, whole-of-government approach necessary to address security threats to Canada and compliment the complex government organization that exists to formulate response in the maritime domain. Each provides enhanced pre-planned direction in response to significant threats to marine security and adds to the marine security framework and its various layers of governmental participation.⁴¹

Canada has developed an unprecedented complex approach to national security with specific attention in the maritime domain. Accomplished to address the current-day security threats with pressure to take appropriate security action from the hyper security-conscious US, Canada is now prepared to meet threat in the maritime sphere thus improving domestic security and continental approaches to counter ensuing threats. The new marine security framework encompasses a whole-of-government approach specific to the federal sector with emphasis to those agencies or departments interested in the maritime domain.

⁴¹Public Safety Canada, *Government of Canada Marine Event Response Protocol (MERP)*, Version 5.0 (Ottawa, ON: Government of Canada, 27 September 2008), 1.

CHAPTER 2: MARINE SECURITY OPERATIONS CENTRES

Following 9/11, the government of Canada made significant progress in conceptually creating an improved and robust security framework for the nation. The adoption of Canada's National Security Policy (NSP) was the first step towards a myriad of initiatives to improve domestic security and focus on transforming the protection to North America in a similar fashion to allied states – most notably the US. Transport Canada promulgated in September 2006 that the Government of Canada had dedicated \$930 million for projects improving Canadian marine security initiatives.⁴² This dedicated funding encompassed a vast range of improvement measures to ensure Canada does its fair share in the new threat environment. Particular attention was given to the maritime domain and the inherent vulnerabilities with being a coastal state with maritime interests bound by three ocean seaward approaches including measures to protect maritime infrastructure, increase the surveillance of maritime vessel traffic, and improve Canada's capability to react to emergency situations.⁴³ Among the numerous measures for improvement, and based on the NSP, the Marine Security Operations Centres (MSOC) project materialized.

⁴²Transport Canada. *Marine Security Highlights* (Ottawa, ON: Government of Canada, September 2006; available from <http://www.tc.gc.ca/eng/mediaroom/backgrounders-b06-m002e-1875.htm>. Internet; accessed 20 January 2011).

⁴³*Ibid.*

ORIGIN OF THE MSOC PROJECT

The official announcement by the Government of Canada on 27 April 2004 that unveiled the NSP also captured a six-point, \$308 million program in support of security and addressed security vulnerabilities in the maritime domain. The most strategic element of the plan was the direction to establish MSOC. The introduction of these centres into the federal security framework was a manoeuvre to address the inherent lack of coordination among government agencies and departments tasked with responsibilities in the maritime domain.

The MSOC were conceptually envisioned to form the foundation for Canada's marine security framework and mark a new approach to Canadian security in the maritime domain.⁴⁴ These centres, horizontal and interdepartmental by nature, were directed to be comprised of the core federal government agencies/departments concerned with the maritime domain emulating existing departmental constructs:

Reflecting the approach the Canadian Forces and Canadian Coast Guard take to carry out search and rescue operations, these Marine Security Operations Centres will have the authority and capacity, through interagency staffing, to bring to bear all civilian and military resources necessary to detect, assess, and respond to a marine security threat. Marine Security Operations Centres will be networked with the Coast Guard's vessel traffic and communications systems, and with the new Government Operations Centre in Ottawa.⁴⁵

Ultimately, these centres would become the focal point for the government of Canada's marine security sector and establish a whole-of-government foundation to an emerging framework to address threats to the national interest from the ocean approaches.

⁴⁴Privy Council Office, *Securing an Open Society...*, 38.

⁴⁵*Ibid.*

MSOC PROJECT COMPOSITION, VISION AND MISSION

The MSOC construct is primarily based on the concept of integrating or fusing intelligence, surveillance and reconnaissance information, data and products to generate situational awareness in the maritime domain in real time. Unfortunately, until the release of the NSP, this concept posed a significant challenge for the government of Canada due to technical incompatibilities, personnel and procedural impediments, policy constraints and a lack of information exploitation capability at the federal level. In 2002, the Canadian Navy created the Maritime Operational Surveillance Information Centres (MOSIC) project, as a response to what was seen as a growing need for the development of cohesive and comprehensive maritime surveillance, combined with integrated intelligence capabilities to support domestic maritime security and deployed operations. The MSOC concept would build on the MOSIC construct, and incorporate the horizontal nature of the various departmental structures and mandates charged with the maritime domain.⁴⁶

The MOSIC Project's early focus was to facilitate the identification and implementation of technical and non-technical improvements that would transform the navy's approach of collecting, managing, storing, displaying and sharing maritime intelligence surveillance and reconnaissance information and data within an integrated information infrastructure. Using modern command, control and intelligence systems, improved information management, data libraries and a cadre of trained people with the necessary experience in intelligence operations were identified as requirements to

⁴⁶Marine Security Operations Centres Project, *Marine Security Operations Centres Project Scope Statement ...*, 1.

achieve success. Thus, the MOSIC project formed an excellent starting point for the MSOC initiative to build on as the cornerstone for the horizontal requirements envisioned with multiple departments co-locating as outlined in the NSP.⁴⁷

Following the six objectives outlined in the NSP, the MSOC project initially stood up in the Fall of 2005, with an emphasis on a domestic inter-agency capability. With a less “navy centric” flavour, the MSOC are designed to facilitate a potentially combined response to marine security threats between the federal sector government organizations, namely the core governmental departments with a responsibility to supporting marine security. At present, there are two coastal MSOC with the same inherent capabilities with minor differences based on design, footprint and geographic responsibility.⁴⁸ These centres contain a contingent of representation from each of the core agencies or departments who can provide rapid response to a broad spectrum of marine security threats. Each team of core-partner personnel are given access to their own agency or department information systems on-site to allow for timely situational awareness. This collaborative environment facilitates information to be shared between agencies or departments on a case-by-case basis in accordance with laws, statutes and departmental mandates. This co-location of personnel facilitates communication

⁴⁷Marine Security Operations Centres Project, *Marine Security Operations Centres Project Scope Statement* ..., 1.

⁴⁸It should be noted that the Great Lakes St. Lawrence Seaway Marine Security Operation Centre (GLSLS MSOC) Project was initiated on July 31, 2005 as a separate project led by the RCMP. The purpose of the GLSLS MSOC is to provide a focal point for the generation and dissemination of an accurate, coherent, relevant and timely maritime domain awareness picture to support operations and the protection of national security in a constabulary law enforcement role. The GLSLS MSOC is responsible for the inland Great Lakes and St. Lawrence Seaway – a key Canadian economic region containing several critical infrastructure sites, including international bridges and tunnels as it is deemed a high marine security priority for both Canada and the United States. Royal Canadian Mounted Police. *Marine Security Operations Centre – Frequently Asked Questions* (Ottawa, ON: Government of Canada, 17 October 2008; available from <http://www.rcmp-grc.gc.ca/mariport/faq-eng.htm>. Internet; accessed 7 February 2011).

between federal organizations and fosters an environment for collaborative operational planning.⁴⁹

The MSOC project was established to address inter-agency/interdepartmental marine situational awareness capability deficiencies for the government of Canada. These capabilities were deemed insufficient from the federal sector following 9/11 when an in-depth look at potential vulnerabilities was completed in concert with the creation of the NSP. Specifically, the government of Canada identified that within the maritime domain the following deficiencies: a lack of a marine intelligence, surveillance and reconnaissance framework that effectively uses existing resources to allow the integration of future capability; a lack of ability to develop fully the recognized marine picture with fidelity, consistency and timeliness; a lack of ability to exploit international, national, provincial and regional agency source intelligence due to information saturation, an unstructured information domain (not integrated between agencies or departments), and a limited information exploitation capability (manually intensive); a lack of technical infrastructure redundancy that mitigates single points of failure to ensure continuity of operations and the generation of the recognized marine picture; a lack of a commonly understood and accepted formal framework that clearly define the roles, functions, responsibilities and powers of the agencies or departments concerned with marine security for both routine and contingency operations; a lack of performance measures that will allow for the evaluation of the MSOC's ability to meet stakeholder requirements; and a lack of a standardized MSOC training framework that would provide refresher training to experienced personnel as well as core competency

⁴⁹Royal Canadian Mounted Police. *Marine Security Operations Centre – Frequently Asked Questions...*

training to new personnel.⁵⁰ These capability deficiencies represent a considerable operational void to the governmental security matrix for Canada. In order to realize a marine security framework for Canada, these capability deficiencies needed to be satisfied to permit the government of Canada to advance its post-9/11 security vision.

To accomplish the policy direction as laid out in the NSP, the DND accepted the role of establishing the MSOC project in response to the identified capability deficiencies. The project is horizontal by nature and consists of five core partners of the federal government: CBSA, DFO/CCG, CF/DND, RCMP, and TC.

The core partners of the MSOC Project were identified to work together in a horizontal, collaborative construct to progress the initiative's development and coordinate efforts to an end product in response to the NSP. The MSOC Project is governed by the following vision and mission statements:

Marine Security Operations Centres Initiative Vision

To establish interdepartmental organizations on both coasts that leverage the capability, capacity and authority of the partnering departments and agencies to enhance marine security through collaborative detection, assessment, and warning thereby supporting responses to threats that challenge our nation's security from our seaward approaches.⁵¹

⁵⁰Marine Security Operations Centres Project, *Marine Security Operations Centres Project Scope Statement* ..., 5.

⁵¹Marine Security Operations Centres Project, *Marine Security Operations Centres Project Full Operational Capability Vision: 30000806-315-05* (Ottawa, ON: Government of Canada, 22 July 2009), 18.

Marine Security Operations Centres Initiative Mission

The Marine Security Operations Centres' mission is to generate maritime situational awareness by combining the knowledge and skill sets of the government agencies engaged in, or in support of, marine security. It will accomplish this through the collection, integration and analysis of the information sources of these agencies, thereby assisting in the detection, assessment and support of a coordinated response to a marine security threat, incident or significant marine event.⁵²

These guiding statements, developed in partnership with stakeholders, focus the MSOC Project to deliver a capability to the government of Canada that has the integrity of all core-partner departments. These statements provide direction to the true scope of the MSOC Project and are complementary to the foundation strategic marine security framework and higher order policy direction as outlined in the NSP, FERP and MERP. As such, the MSOC are fundamental to the Canadian government's marine security strategy and whole-of-government approach to fulfilling a robust capabilities-based approach to threats in the maritime domain.⁵³

Each core partner agency or department brings their unique mandates to contribute to the collective efforts of national marine security. The following is a synopsis of each of the core-partners' roles in maritime security based on each organizations respective mandate to maximize their contribution to the government of Canada's combined robust, whole-of-government approach to the MSOC capability.

⁵²Marine Security Operations Centres Project, *Marine Security Operations Centres Project Full Operational Capability Vision..*, 18.

⁵³*Ibid.*

Canada Border Services Agency (CBSA)

CBSA ensures the security and prosperity of Canadians by overseeing the access of people and goods to and from Canada. Using authorities conferred to the agency in the *Customs Act*, the *Immigration and Refugee Protection Act*, the Criminal Code and more than 65 other pieces of legislation, CBSA strives to ensure that threats to the health, safety and security of Canadians are not permitted to enter Canada. CBSA is also mandated to locate, detain and remove people who may become inadmissible at anytime after their arrival in Canada and those who have entered Canada improperly or without authorization. In the marine context, CBSA authorities under the *Customs Act* and the *Immigration and Refugee Protection Act* may be applied anywhere within Canada, including within the 12-nautical mile territorial limit. The agency works cooperatively with other nations to conduct pre-arrival verification of goods and people destined to Canada in order to determine their admissibility under Canadian law. Strong partnerships with law enforcement and intelligence agencies around the world enhance the agency's capabilities and assist in its efforts against organized criminal syndicates, terrorism, war crimes, drugs and weapons smuggling, human trafficking and other trans-border crime.⁵⁴

Specifically related to the MSOC Initiative, CBSA's commitments encompass the provision of intelligence functions in support of the CBSA mandate and provide where appropriate, a contribution to the MSOC Project mandate in support of Maritime

⁵⁴Marine Security Operations Centres Project, *Marine Security Operations Centres Statement of Operational Requirements* Amendment No. 1: 30000806-304 (Ottawa, ON: Government of Canada, 05 August 2009), 27; and Canada Border Services Agency, *Report on Plans and Priorities 2009-2010* (Ottawa, ON: Government of Canada, 26 March 2009; available from <http://www.tbs-sct.gc.ca/rpp/2009-2010/inst/bsf/bsf00-eng.asp>. Internet; accessed 27 November 2010).

Domain Awareness for Canada; provide on a case-by-case basis, information and/or intelligence to other core partners within the MSOC Project; and provide the CBSA Headquarters and Regional Headquarters, with marine intelligence products derived from the collaboration of core partners in the MSOC coastal centres themselves.⁵⁵

CBSA officers and analysts at the coastal MSOC share information collected and help under the authority of the agency's program legislation with their other governmental department counterparts, as legally and situationally appropriate, with the objective of providing timely, relevant and accurate information to decision-makers. As a subordinate agency to Public Safety Canada, CBSA is a key contributor to Canada's marine security framework and stakeholder to the government's security matrix in the maritime domain.

Canadian Forces (CF)/Department of National Defence (DND)

As directed in the 2004 NSP, the CF/DND was tasked to create and lead the MSOC project. Additionally, the policy states that the lead minister for the coordination of on-water responses to maritime threats or developing crisis in our Exclusive Economic Zone (EEZ) and along Canada's coastline is the Minister of National Defence.

The mandate of the CF/DND is to meet Canada's defence needs, enhance the safety and security of Canadians and to support the Government of Canada's foreign policy and national security objectives. With respect to marine security, the CF/DND

⁵⁵Department of National Defence, *Marine Security Operations Centres (MSOC) Project – Project Management Board Submission*, File No. SD2009-000783 (Ottawa, ON: Government of Canada, 20 January 2011), 28.

role is to provide the defence of Canada's coastline by bringing to bear the military resources necessary to respond sufficiently to a marine security threat and to support the MSOC core partners' surveillance and response needs to a marine security threat. Within the MSOC, the CF/DND supports the MSOC core partner departments and agencies in their national marine security role by sharing all related information as required and permitted under Canadian legislation. Similarly, the MSOC core partners support the CF/DND in its defence role. As project lead, the CF/DND continues to develop the MSOC facilities on behalf of, and in consultation with the core partners. As effective landlord and host of the core partner personnel and host of the Capability Management Organization personnel, the CF/DND role is further expanded to support and maintain the infrastructure that is in use by the MSOC on each coast. This makes the CF/DND a significant contributor to Canada's marine security framework and the principle stakeholder to the government's security matrix in the maritime realm.⁵⁶

Department of Fisheries and Oceans (DFO)

DFO encompasses two distinct organizations within its departmental mandate that play a role within the MSOC, CCG and Conservation and Protection (C&P).

As a key national institution, the CCG is responsible for maintaining an accessible and sustainable marine transportation matrix for Canada by providing mariners, both commercial and recreational, with a suite of national initiatives mandated under Canada's *Oceans Act*, related to, marine communications and traffic

⁵⁶Marine Security Operations Centres Project, *Marine Security Operations Centres Statement of Operational Requirements...*, 29; and Department of National Defence, *Canada First Defence Strategy* (Ottawa, ON: Government of Canada, 2005), 7.

services, marine search and rescue, aids to navigation, pollution management, icebreaking and waterway coordination. In addition to its mandated programs, the CCG has another vital obligation under the *Oceans Act* to support other departments, agencies and working groups of the government of Canada through the provision of ships, aircraft and other marine services.⁵⁷

C&P monitors and manages marine activities for care and control of Canada's ocean and freshwater ecosystems. From ocean research, safety, enforcement and the management of domestic and foreign fishing fleets, C&P collects information on maritime activities which contribute significantly to maritime domain awareness and, by extension, marine security. Both organizations are considerable contributors to the MSOC initiative and provide valuable information in establishing a national maritime picture for Canada. With regulatory authorities inherent with their respective mandates, they each contribute to the collaborative essence of the MSOC initiative and are fundamental component to the marine security framework for Canada.⁵⁸

The Royal Canadian Mounted Police (RCMP)

The RCMP is the Canadian federal police service under the Department of Public Safety Canada. The RCMP is a unique organization since it is a federal, provincial and municipal police force. Under the *Royal Canadian Mounted Police Act*,

⁵⁷Marine Security Operations Centres Project, *Marine Security Operations Centres Statement of Operational Requirements...*, 31; and Department of Fisheries and Oceans, *Report on Plans and Priorities 2010-2011* (Ottawa, ON: Government of Canada, 13 November 2009; available from <http://www.tbs-sct.gc.ca/rpp/2010-2011/inst/dfo/dfo00-eng.asp>. Internet; accessed 12 January 2011).

⁵⁸Marine Security Operations Centres Project, *Marine Security Operations Centres Statement of Operational Requirements...*, 34; and Department of Fisheries and Oceans. *Report on Plans and Priorities 2010-2011...*

the RCMP provides police services in eight provinces (excluding Ontario and Quebec), three territories, approximately 200 municipalities, 180 Aboriginal areas and three international airports. The RCMP's contribution to marine security is in enforcement of laws that relate to national security, organized crime, and other security related elements such as those surrounding smuggling, illegal drugs and immigration. The RCMP targets terrorist groups and organized crime networks that may utilize Canada's seaports, coastlines, waterways and marine borders as a conduit for criminal activities.⁵⁹ These programs also contribute to global marine security with close relationships with the US and other international policing organizations to protect the integrity of maritime borders. RCMP intelligence officers in the MSOC liaise with all intelligence and enforcement areas of the organization and other agencies or departments to acquire information and intelligence. They provide operational, strategic direction from a regional and national perspective to RCMP analysts and the MSOC core-partners as applicable. They also coordinate the gathering of information/intelligence, conduct research and analysis of criminal intelligence on national security and other criminality, as it relates to marine security.⁶⁰

As Canada's national police service, the RCMP bring the law enforcement and constabulary mandate to the MSOC Project. The RCMP is the primary stakeholder for Canada's security matrix and the predominant lead department to address marine security threats of a criminal nature. As an organization, the RCMP takes a leadership

⁵⁹Royal Canadian Mounted Police, *Report on Plans and Priorities 2010-2011* (Ottawa, ON: Government of Canada, 13 November 2009; available from <http://www.tbs-sct.gc.ca/rpp/2010-2011/inst/rcm/rcm00-eng.asp>. Internet; accessed 30 November 2010).

⁶⁰Marine Security Operations Centres Project, *Marine Security Operations Centres Statement of Operational Requirements...*, 35; and Royal Canadian Mounted Police, *Report on Plans and Priorities 2010-2011...*

posture in addressing Canada's national security policy and in the composition of the subordinate marine security framework for the government of Canada.

Transport Canada (TC)

TC works to promote efficient maritime transportation for safe, secure and sustainable marine practices while also overseeing marine infrastructure and regulating the safe transportation of dangerous goods by water in efforts to protecting the marine environment. Specific to the department, TC's Marine Security Program develops policies, legislation and regulations related to marine transportation security; ensures industry compliance with the *Marine Transportation Security Act* and Regulations through departmental oversight; develops training, education and awareness surrounding security practices; and ensures the horizontal coordination for federal government marine security policies and regulatory activity.⁶¹ Within the MSOC, TC personnel conduct surveillance, develop situational awareness, ensure regulatory compliance and provide decision makers with relevant, accurate and timely information in the enforcement of *Marine Transportation Security*. In addition, TC chairs the IMSWG which is designed to coordinate federal responses to marine security policy issues. TC encompasses the final core department mandated to address marine security

⁶¹Transport Canada, *Report on Plans and Priorities 2010-2011* (Ottawa, ON: Government of Canada, 13 November 2009; available from. <http://www.tbs-sct.gc.ca/rpp/2010-2011/inst/mot/mot00-eng.asp>. Internet; accessed 30 November 2010).

concerns for Canada and, based on a regulatory nexus and is a key contributor to the MSOC initiative and Canada's marine security framework.⁶²

The five agencies or departments that form the basis to Canada's national security posture have an all-encompassing mandate to address marine security threats to Canada from the three-ocean approaches. This construct provides an integrated capability and is the cornerstone to Canada's national marine security framework. MSOC facilitates the whole-of-government approach for the protection of Canadians and Canadian interests.

MSOC PROJECT OVERVIEW

The main purpose of an MSOC is to produce actionable intelligence, concentrating on Canadian security in the maritime realm and to communicate applicable information to appropriate government stakeholders in a timely fashion. By bringing together inter-agency/interdepartmental staff, the centres provide a robust maritime picture using intelligence, surveillance, reconnaissance and collaboration. MSOC will have the authority and capacity to detect, assess and provide support to a coordinated, whole-of-government approach to marine security concerns. With such a pronounced purpose, the MSOC Project is the focal point for marine events that may pose threats to Canada from the maritime realm.⁶³

⁶²Marine Security Operations Centres Project, *Marine Security Operations Centres Statement of Operational Requirements...*, 36.

⁶³Marine Security Operations Centres Project, *Marine Security Operations Centres Project Scope Statement ...*, 2.

The MSOC Project adopts an integrated approach to maritime security issues across the federal government and creates the foundation to a strategic framework and action plan designed to ensure that Canada is prepared for, and can respond to current and future threats in the maritime domain. The MSOC concept employs a model that can adapt to changing circumstances with *variable geometry* to accommodate any situation.⁶⁴ The main focus of the centres is on routine surveillance and contingency reaction to marine events that generally require a national response that is predominately outside the capacity of individuals, communities or provinces and federal departments to address alone. The MSOC represent the concept of collaboration and they epitomize the whole-of-government approach to the maritime component of national security. The collaborative operation created with the co-location of agency or departmental personnel creates a powerful environment of real-time information exchange of information from the maritime domain.⁶⁵

Today, the federal government's inter-agency and interdepartmental marine intelligence, surveillance and reconnaissance capability is based on process, information technology infrastructure and personnel resources developed to meet specific individual agency or departmental mandates. Recent international and domestic events, like 9/11, have highlighted the need for greater collaboration and

⁶⁴*Variable geometry* is a term coined by Vice Admiral Dean McFadden, the Chief of the Maritime Staff of the Canadian Navy referring to the adaptability of the MSOC to accommodate any potential marine security situation. The MSOC can support the presence of other government organization that could be involved in a developing threat to national security (i.e.: CSIS, Public Safety Canada, Health Canada, etc.), and be flexible to adjust as required to support senior decision makers in a fully integrated collaborative approach.

⁶⁵Marine Security Operations Centres Project, *Marine Security Operations Centres Project Scope Statement* ..., 4.

interoperability within the federal government and thus are directing changes to the way marine situational awareness is developed.

Any solution for improved *collaboration* and *interoperability*, suggests the need to review and enhance the collective partner agencies' or departments' approach to meeting their respective mandates through the adoption of a more coherent and cooperative whole-of-government collaborative approach. The participants recognize the need for transforming the way interaction is accomplished and ultimately, to develop shared marine situational awareness. This translates into a better, more effective use of business processes, equipment, information management and system architecture. The MSOC project will focus on how agencies or departments are the same rather than how they are unique and adopt the best practices identified by the consortium of core-partner staffs. Thus, the capability inherent with co-location highlights the utility of the MSOC capability and its foundational importance to the marine security framework of Canada.⁶⁶

The project's emphasis is on the business of preparing and distributing consistent, timely and trustworthy inter-agency or interdepartmental marine intelligence, information and data to stakeholders that will be integrated into the total situational awareness picture for use in the resolution of marine security threats. In addition to the immediate benefits to be realized by the core-partners, great potential exists to standardize business processes, equipment, information management, and system architecture thereby representing a potential framework for future initiatives.

⁶⁶Marine Security Operations Centres Project, *Marine Security Operations Centres Project Scope Statement* ..., 6.

This is achieved by addressing the capability deficiencies identified by the government of Canada based on policy in the maritime domain.⁶⁷

The project will meet the NSP mandate and address identified security capability deficiencies through a number of key objectives. These objectives include: providing organizational structure for the MSOC; providing the physical infrastructure to support the MSOC; providing trained personnel to support 24/7 operations; developing and implementing consistent and integrated information management and service processes; providing a precise, coherent and timely integrated marine picture that can be leveraged to support relevant components of the government of Canada's integrated security infrastructure; providing the essential information management and technology infrastructure required to support an integrated information environment; and developing in-service support capability into the existing life cycle support organizations.⁶⁸ Therefore, the MSOC Project will ultimately become a focal point for marine security analysis. The centres shall promote efficiency in regard to threat reduction for national security developments from seaward and fulfill the foundational role for the Canadian marine security framework.

This MSOC concept will be achieved with the combination of technology (consisting in an integrated information environment), processes (operational instructions or standard operating instructions to address the internal operations), and people (a fully trained staff to utilize the technologies and processes) to achieve ultimately the true intent of the MSOC capability. This complements the primary

⁶⁷Marine Security Operations Centres Project, *Marine Security Operations Centres Statement of Operational Requirements...*, 8.

⁶⁸Marine Security Operations Centres Project, *Marine Security Operations Centres Project Scope Statement...*, 7.

purpose of an MSOC which is to produce actionable intelligence, concentrating on national security and to communicate applicable information to government stakeholders in a timely manner and to create a collaborative whole-of-government environment to deliver effect based on the security requirements of the nation.⁶⁹

It is important to note that the MSOC will not usurp departmental authorities, responsibilities or lines of authority or communication. MSOC personnel will continue to work for their respective departments but will use the collaborative work environment of the MSOC to enhance information-sharing and analysis capabilities in order to provide information products and services for use by their own and other requesting departments or government entities. The existence of the centres will not change the nature of lead and support departmental roles and responsibilities in relation to contingency operations and other matters that fall within their respective mandates. Timely communication of essential information to departmental Ministers will be maintained independent of any linkages that may be made between the MSOC and the Government Operations Centre (GOC) or other government coordination bodies. The MSOC demonstrate a horizontal approach to collaborative planning for the security matrix of Canada in the maritime sphere providing exceptional value to the inherent interdepartmental capability and function.⁷⁰

⁶⁹Marine Security Operations Centres Project, *Marine Security Operations Centres (MSOC) Project – Project Management Board Submission...*, 19.

⁷⁰Canada. Marine Security Operations Centres Project, *Marine Security Operations Centres Project Full Operational Capability Vision: 30000806-315-05* (Ottawa, ON: Government of Canada, 22 July 2009), 19.

THE VALUE OF THE MSOC CAPABILITY

Since initial capability (IC) was established in the Fall of 2005, the philosophy has been that the coastal MSOC would operate as “living labs” and, from an operational perspective, progress over time in supporting real operations as well as the project office by providing user input throughout the definition phase of the project. This methodology has had tremendous benefit in developing the MSOC capability in support of the Government of Canada’s commitment to strengthening marine security activities. The establishment of a five-agency or departmental collective organization on both coasts has removed the traditional barriers for information sharing and collaborative operational planning and became a legitimate example for inter-agency/inter-departmental co-ordination. The value of sharing accurate, timely and complete information across the whole of the marine security enterprise cannot be overstated. Getting the right information to the right people quickly and keeping partners informed to the greatest extent possible translates to better efficiency. At present, the coastal MSOC allow senior decision makers to be better situated in planning for, preventing, or responding to marine security threats, as well as routine day-to-day operations. To maximize decision making effectiveness, the MSOC allow officials to have timely access to correct information, often requiring information to be shared across a broad landscape of mandates, agencies and systems. That said, the MSOC technological

concept was largely theoretical, and validation was required to hone in on its true merit.⁷¹

In May 2009, the MSOC Project conducted a Proof of Concept (PoC) that showcased a scenario based vignette to all MSOC stakeholders in an attempt to illustrate the project's potential solution to the detection, identification and assessment of national maritime security threats through the use of a solution concept. Overlaying this exercise was the demonstration and opportunity for observation of stakeholders and officials from the partner agencies or departments. The PoC demonstrated, through the use of a conceptual model, key aspects of a future MSOC at end-state or full operational capability. The demonstration ensured that stakeholders were witness to the progress that the MSOC Project had made, and that they were fully cognizant as to the conceptual framework that was being proposed. Ultimately, the PoC was successful in showcasing the power of collaboration and the combined feedback was supportive for the project to manoeuvre towards implementation.⁷²

Following PoC, in October 2009, the project achieved initial operational capability. It marked a significant milestone providing renovated accommodations for two Coastal MSOCs and a test and development centre. With this state, core partners are presently housed together in purpose-built space to facilitate collaboration and collaborative operational planning. Although just completing definition, the coastal MSOC have achieved considerable success in addressing marine security threats,

⁷¹Mary Ellen Green, "Milestone in Marine Security Reached," *CFB Esquimalt Lookout*, Vol. 54, No. 46 (16 November 2009).

⁷²Marine Security Operations Centres Project, *Marine Security Operations Centres (MSOC) Project – Project Management Board Submission...*, 21.

assisting in a number of legitimate operations since their inception. The project further enhances the collaborative power of each MSOC by further building on the initial operational capability footprint and providing an enhanced integrated information environment to better enable the centres to operate in a more effective and efficient manner. The MSOC are key contributors to the enhancement of Canada's national security capacity to meet current and future threats to national security. The centres are a fundamental component to ensuring North America is secure and they embody the whole-of-government approach to achieving a secure society. The envisioned MSOC at full operational capability represent a commitment to Canadians as well as international allies (most notably the US) that Canada is doing its part in addressing marine security.⁷³

The implementation of the MSOC Project promises many benefits to the MSOC partners and the government of Canada. The delivered capability will promote the sharing of information in a manner that maximizes agility and provides the ability for partners to change processes and technological solutions rapidly and at minimal cost. The project will allow for collaboration to its fullest extent giving core-partners a set of tools that permit the sharing of information automatically, quickly, and efficiently, enabling an enhanced level of marine security and a robust national maritime picture. The benefit to the government of Canada is a low cost inter-agency/inter-departmental

⁷³Marine Security Operations Centres Project, *Marine Security Operations Centres Initial Operational Capability (IOC) Certificate*: 30000806-103-12 (Ottawa, ON: Government of Canada, 30 September 2009), 4.

information technology template that can potentially be leveraged to support other government projects and initiatives.⁷⁴

Canada is at a critical point in time where collaboration and information sharing between various levels of government has become a necessary part of everyday operations. The MSOC are the embodiment of interdepartmental collaboration and are leading the way towards effective, controlled and trusted information sharing using the proposed integrated information environment combining technology, processes and people. This technology will enable core-partner organizations to share information in real-time and allow for the analysis of data in an automated fashion resulting in a significantly improved ability to identify potential threats from our seaward approaches. The MSOC solution will potentially provide a model to lead the way for an automated interagency classified information collaboration solution for the whole-of-government. The MSOC Project is a prime example of how the government of Canada is committed to strengthening marine security activities both nationally and internationally, and without question, forms the strategic foundation for the national marine security framework for Canada.

⁷⁴Marine Security Operations Centres Project, *Marine Security Operations Centres (MSOC) Project – Project Management Board Submission...*, 21.

CHAPTER 3: CHALLENGES TO THE CURRENT FRAMEWORK

The promulgated national marine security framework suggests that Canada is getting serious about potential security threats in the maritime realm. Following the end of the Cold War and the devastating events 9/11, the government of Canada acknowledged its part in the collective security of continental North America, mostly to reassure an increasingly security-conscious US. With the adoption of the NSP and a new integrated approach, a long-term strategic framework to prevent more effectively and initiate a coordinated response to national security threats was created. The MSOC Project enabled a collaborative mechanism for the government of Canada to execute more effectively marine security activities in a collaborative construct. Despite these initiatives made by the government of Canada to address the security capability gaps in the maritime domain, challenges still remain for the framework to be fully realized. Obstacles based on Canada's geography, legislative process and political make-up impair the country's ability to counter the full spectrum of marine security as initially envisioned in the 2004 NSP.

CANADA'S ARCTIC REGION

Canada's Arctic region has been a particularly controversial topic of debate over the last decade concerning sovereignty and marine security. The country lays claim to approximately 162,000 kilometres of Arctic coastline, and a maritime region that

encompasses 25 percent of the globe's northern Arctic territory.⁷⁵ Its most distinguishing feature is the Canadian Arctic Archipelago – a close formation of islands situated to the northern extremities of continental North America, occupying an area of 1.3 million square kilometres, representing the largest grouping of islands in the world.⁷⁶ It is a region with tremendous potential based on its sheer size, but also a region of considerable obstacle based on its unforgiving cold climate and barren terrain. This northern region presents to Canada a tremendous task in projecting sovereignty and in exercising effective marine security.

Ongoing debate surrounds the effects of climate change and the melting of the polar ice cap. Consensus among scientists points to the fact that climate change is causing ice cover in the Arctic to melt at a rate greater than previously envisaged.⁷⁷ The melting of polar ice translates to accessibility, thus giving rise to new geostrategic concerns in the north for the government of Canada ranging from sovereignty, energy security, environmental protection and the potential of foreign militaries and criminal elements to operate freely in the Arctic region. What was once seen as a desolate, frozen northern barrier has now become increasingly an accessible domain with inherent security vulnerabilities to North America⁷⁸

⁷⁵Department of Indian and Northern Affairs, *Canada's Northern Strategy*, Ottawa, ON: Government of Canada, 2007; available from <http://www.northernstrategy.gc.ca/index-eng.asp>. Internet; accessed 27 October 2010.

⁷⁶Guy Killaby, "Great Game in a Cold Climate." *Canada's Arctic Sovereignty in Question*, in *Canadian Military Journal*, Vol. 6, No. 4 (Winter 2005-2006), 33.

⁷⁷*Ibid.*

⁷⁸Bjorn Rutten, *Security in Canada's North: Looking Beyond Arctic Sovereignty* (Ottawa, ON: Conference Board of Canada, November 2010), 3.

The Arctic Ocean and associated land features represent a massive maritime area, and a somewhat undiscovered environment that contains an abundance of natural resources, such as minerals, fish and vast quantities of both oil and natural gas. It is estimated that:

The Arctic region holds between 100 and 200 billion barrels of recoverable oil, and approximately 2000 trillion cubic feet of natural gas. Of that total, it is further estimated that approximately 50 billion barrels of that oil may be found in the North American Arctic. The estimates of commercially recoverable oil and gas in the Beaufort Sea range from 4 trillion to 12 billion barrels of oil and between 13 trillion and 63 trillion cubic feet of gas, and the petroleum reserves in the Mackenzie Delta and beneath the Beaufort Sea amount to over 10 percent of Canada's total.⁷⁹

The warming trends associated with climate change have initiated a reduction in environmental impediments in Canada's north causing new interest in exploration opportunities and exploitation activities. The new activity in the north requires adequate regulation to ensure national interests are maintained.⁸⁰

Specific to the maritime domain, the melting of sea ice and the opening of the Northwest Passage has the government of Canada speculating that the strategic geographic passage may eventually transition to a viable navigation route for shipping. A 2004 scientific study by the International Arctic Science Committee, contracted by the Arctic Council noted that the Arctic sea-ice in summer months has declined by 15-20 percent over the last 30 years.⁸¹ As well, a US Navy 2001 report predicted that "...as a consequence of climate change, within 5 to 10 years, the Northwest Passage

⁷⁹Killaby, "Great Game in a Cold Climate: Canada's Arctic Sovereignty in Question"..., 33.

⁸⁰Rutten, *Security in Canada's North: Looking Beyond Arctic Sovereignty...*, 16.

⁸¹Arctic Council and the International Arctic Science Committee, *Impacts of a Warming Arctic: Arctic Climate Impact Assessment*, Cambridge, UK: Cambridge University Press, 2004; available from <http://amap.no/acia/>. Internet; accessed 12 February 2011.

will be open to non-ice-strengthened vessels for at least one month each summer, ...and the Canadian Arctic will experience entire summer seasons of nearly ice-free conditions as early as 2050.”⁸² The subsequent impact of global warming brings with it heightened challenge to Canada’s historic internal water claim of the passage and the dispute over its jurisdiction, control and security regulation.⁸³

Increased activity, economic interest and continued incursion into Canada’s Arctic territory signals a need for a national projection of sovereignty, and an augmented marine security posture. That said, Canada’s ability to assert its jurisdiction in the Arctic region is poor, and its ability to detect and monitor northern activities in an attempt to enforce sovereign claims over the Arctic territory has been questioned.⁸⁴ The government of Canada acknowledges that new opportunities are emerging across the North as a result of climate change and the geopolitical significance of the region has never been greater. How the region as a whole evolves will have major implications for Canada and its role as an Arctic power.⁸⁵ Nevertheless, Canada’s Arctic, specifically its maritime domain, remains a formidable challenge in asserting

⁸²Matthew Carnaghan and Allison Goody, *Canadian Arctic Sovereignty*, Report prepared for the Parliamentary Information and Research Service, PRB 05-61E (Ottawa, ON: Library of Parliament, 26 January 2006), 3, and Office of Naval Research, Naval Ice Centre, Oceanographer of the Navy, and the Arctic Research Commission, “Naval Operations in an Ice-Free Arctic,” Symposium, (April 2001; available from <http://www.natice.noaa.gov/icefree/FinalArcticReport.pdf>. Internet; accessed 21 February 2011).

⁸³The Northwest Passage is defined as the body of Arctic water existing between the Davis Strait and Baffin Island in the east and the Bering Strait in the west. Canada deems these waters to be “internal waters” based on the “straight baseline” method of delineation as defined in Article 7 of United Nations Convention on the Law of the Sea (UNCLOS). Some states, notably the US and European Union do not agree to this claim, sighting that the Passage is simply apart of Canada’s territorial waters and that the right of “innocent passage” needs to be respected. Carnaghan and Goody, *Canadian Arctic Sovereignty*..., 2.

⁸⁴*Ibid.*, 1.

⁸⁵Department of Indian and Northern Affairs, *Canada’s Northern Strategy*..., 2.

national jurisdictional claim, and providing marine security over the region. The Canadian North is assessed as an area of extreme vulnerability for the maintenance of national security and an area in need of attention.

In response to this vulnerability to Canada's third ocean approach, "...the government of Canada has launched an ambitious Northern Strategy to respond to these challenges."⁸⁶ This new Arctic policy document identifies sovereignty projection and marine security as important areas where Canada is taking action to advance its national interests in the region. The Northern Strategy complements the marine security framework for Canada by providing specific focus to the Arctic region and provides strategic guidance to federal stakeholders as a 'roadmap' detailing the government of Canada's approach to the Arctic.

It could be argued that similar initiatives of past policy have been enacted to address Canadian sovereignty over the Arctic region. The 1987 White Paper on defence entitled *Challenge and Commitment* "...announced plans to purchase 10-12 nuclear-powered submarines and 'polar class 8' icebreakers that would be capable of operating in Arctic waters year-round;" the 1995 Foreign Policy entitled *Canada in the World*, discussed Arctic sovereignty; and the 2000 *Northern Dimension of Canada's Foreign Policy* highlighted the preservation of Canadian sovereignty in the North. Each approach commented on Arctic importance, but did not materialize to action.⁸⁷ Capability does exist, or is being implemented to respond to potential marine threats to Canada and complement the security framework with particular attention to the Arctic

⁸⁶Department of Indian and Northern Affairs, *Canada's Northern Strategy*..., 3.

⁸⁷Carnaghan and Goody, *Canadian Arctic Sovereignty*..., 7.

region. These efforts run short in achieving effect to marine security in Canada's northern waters.

The Canadian Coast Guard (CCG) has five icebreakers to operate in the northern region, guiding vessels through ice covered waters and assisting with routing and northern resupply. These vessels "...[are often] the only federal resource positioned in a particular area of the Arctic," and must service a large area of operation as well as the Atlantic region and St. Lawrence river approaches.⁸⁸ In contrast to the immense area of responsibility that these vessels are to service, the effect of federal maritime presence to complement the national marine security framework remains minimal.

Direction has been given to the Canadian Forces (CF) through the implementation of the *Canada First Defence Strategy* to focus on homeland defence and procure the necessary capital assets required to allow for an increased presence in Canada's Arctic region. In particular, the policy document states "...Canada is investing in new patrol ships that will be capable of sustained operation in first-year ice to ensure [the government of Canada] can closely monitor [Arctic] waters as they gradually open up and maritime activities increase"⁸⁹ These new vessels will complement the CF Joint Task Force North (JTFN) and be linked to the MSOC to assist in building a national maritime picture for Canada.⁹⁰ The new fleet of ships, should

⁸⁸Canadian Coast Guard, *Icebreaking Program Report on Performance: Arctic Operations Summer 2003*, Ottawa, ON: Government of Canada, January 2005; available from <http://www.ccg-gcc.gc.ca/ice-gla/ARCTIC%20REPORT%202003%20ENGLISH.pdf>. Internet; accessed 13 February 2011.

⁸⁹Department of Indian and Northern Affairs, *Canada's Northern Strategy...*, 5.

they be built, will be a part of a new National Shipbuilding Procurement Strategy, a long-term plan to support a federal fleet to support the defence of Canada and aid in the marine security vulnerability in the Arctic.⁹¹ These platforms will be a major contributor to the marine security framework of Canada by providing presence in the north and assisting the whole-of-government in projecting national interests in the region. That said, the first ships will not be operational for close to a decade.

To further achieve effect in Canada's Arctic region, enhanced sovereignty patrols of aging fleet of Aurora maritime patrol aircraft have been instrumental over the Arctic Ocean to build situational awareness in the maritime domain to the north and to provide surveillance data to government stakeholders, agencies and departments. Further, through Canada's participation in the North American Aerospace Defence Command (NORAD), Canada maintains a series of unmanned radar sites, the North Warning System (NWS). The NWS provides limited surveillance of North American Arctic territory lending greater granularity to activities in the region. Finally, implementation of the Polar Epsilon Project will provide all-weather, day/night observation of Canada's Arctic region, using information from Canada's RADARSAT 2 satellite, under the management of the CF to further support security through

⁹⁰Craig Collins, "The First Line of Defence: The Marine Security Operations Centres," in *Canadian Navy Centennial: Celebrating a National Institution* (Ottawa, ON: Department of National Defence, 2010), 156.

⁹¹Government of Canada, *National Shipbuilding Procurement Strategy*, News Release (Ottawa, ON: Government of Canada, 3 June 2010; available from <http://news.gc.ca/web/article-eng.do?m=/index&nid=537299>. Internet; accessed 14 February 2011).

persistent surveillance of northern waters.⁹² But, these surveillance activities do not effectively address the security vulnerabilities that have emerged in Canada's north. The Arctic Ocean does not have the same measures to ensure marine security as the Atlantic and Pacific, and remains a weak boundary to the national security matrix and marine security framework of Canada.

Unfortunately, the solution to the Arctic debate is to establish a greater northern presence, and a robust surveillance capability in order to detect, assess and provide support for a coordinated response to marine security threats or significant marine events. Until this presence/capability is established, the challenges inherent with the Canadian Arctic region will continue as Canadian resources at present are insufficient in capacity to monitor and protect the vast Arctic expanse. Climate change has initiated polar ice recession, and with it comes the need for better national strategy to project sovereignty over Arctic waters. The government of Canada acknowledges that it has neglected the maritime security of the North, and as such, Canada's third ocean approach continues to pose a strategic vulnerability to national security, the integrated security system and the marine security framework of Canada.

INFORMATION SHARING

A second challenge that arises with the integrated security system model as prescribed by the NSP and the marine security framework surrounds intelligence and

⁹²Department of National Defence, *Project Polar Epsilon Will Enhance Canada's Surveillance and Security Capability*, News Release (Ottawa, ON: Government of Canada, 2 June 2005; available from http://www.forces.gc.ca/site/newsroom/view_news_e.asp?id=1674. Internet; accessed 13 February 2011).

information sharing. Intelligence management across the government of Canada consists of several organizations – including stakeholders with interests in the maritime domain and the MSOC core partner agencies or departments – some of which collect information while others use it to deliver respective programs or in the enforcement of Canadian law. While each organization has a unique and important mandate to fulfill, the focus towards providing the overall protection of Canada and its citizens through co-ordination and collaboration is a governmental necessity. The collection, evaluation, analysis, integration and interpretation of information used to warn the government organizations about activities that may threaten Canadian security is vital to support the national security framework in place today.⁹³ Getting the right information to the right people in ample time to initiate appropriate action in response to a threat is the underlying principle to any security framework. The consequence of neglecting this fundamental concept can result in vulnerabilities leading to a significant security incident related to criminal activity, smuggling, migration or a potentially disastrous act of terrorism.⁹⁴

Tragic events such as the bombing of Air India flight 182, and the September 11, 2001 terrorist attacks in the US are examples that demonstrate the need for effective security intelligence by the federal government. Both incidents highlight the need for a collaborative approach to intelligence gathering and the requirement for information sharing between agencies or departments in Canada; but this sharing cannot take

⁹³Government of Canada, *Action Plan: The Government of Canada Response to the Commission of Inquiry into the Investigation of the Bombing of Air India Flight 182* (Ottawa, ON: Government of Canada, December 2010), 7.

⁹⁴Office of the Auditor General of Canada, “National Security: Intelligence and Information Sharing,” in Chapter 1 of *The 2009 Status Report of the Auditor General of Canada to the House of Commons* (Ottawa, ON: Government of Canada, 2009), 1.

precedence over Canadian legislation. To ensure Canadians have confidence in the federal government intelligence matrix, it is important that government organizations properly maintain a balance between their respective national security activities and protecting the privacy of Canadian citizens. Ultimately, the government of Canada must ensure that the activities of intelligence agencies or departments are legal, consistent and appropriate to all situations in which they are employed in support of national security.⁹⁵

Introduction of the NSP in 2004 highlighted many weaknesses with federal intelligence coordination efforts and introduced a new Canadian policy construct in an attempt to mitigate the identified deficiencies. The new policy document outlines the intent to build an integrated security system based on common definitions and assigned roles and responsibilities in order to support integrated decision making.⁹⁶ Additional initiatives were developed in response to the NSP in an attempt to mitigate the information sharing challenge with the creation of national security units integrating representatives from stakeholder federal governmental organizations. These units include the Integrated National Security Enforcement Teams (INSET), the Integrated Border Enforcement Teams (IBET), and the Integrated Threat Assessment Centre (ITAC).⁹⁷ In a similar fashion, specific to marine security, the MSOC accomplish this same function in the maritime domain thus supporting the marine security framework for the Canadian government. Despite the existence of these inter-agency sub-

⁹⁵Office of the Auditor General of Canada, “National Security: Intelligence and Information Sharing”..., 2.

⁹⁶*Ibid.*, 12.

⁹⁷*Ibid.*, 11.

organizations, information sharing practices continued to prove inefficient and largely ineffective based on jurisdictional regulations in Canadian legislation.

An initiative entitled the Maritime Information Management Data Exchange System (MIMDEX) project offered a potential solution, complementing the MSOC project and strengthening the marine security framework of Canada. The project objective was to facilitate intelligence distribution between eight different federal stakeholders with on-water responsibilities. However, privacy laws, the *Charter of Rights and Freedoms*, inadequate departmental mandates and legal constraints derailed the deployment of MIMDEX indefinitely. Unfortunately, what was once seen as a potential vehicle for interdepartmental information sharing for the marine security framework failed to materialize leaving the framework without a structured mechanism to share information.⁹⁸

Notwithstanding, the introduction of the NSP and associated infrastructure under the guise of federal security policy, information sharing continues to be an impediment. In the maritime realm, the MSOC Project represents an assembled environment where federal agencies or departments are co-located to have access to stakeholder databases in a sharing structure to allow instantaneous results across the government's data system. In essence, Canadian legislation often negates efforts of integration and counters the principle of the whole-of-government approach and the process of correlating data to provide warning of a developing marine security threat. Technology and legal concerns are hampering that effort, and the result can amount to

⁹⁸Greg Aikins, "Network-Centric Operations and Interdepartmental Marine Security," in *Canadian Naval Review*, Vol. 1, No. 3 (Fall 2005), 22.

disorganization and poor communication to decision makers to enable the formulation of response activities.

There exists some similarity with the US and the intelligence environment that existed leading to the tragic events of September 11, 2001. The 9/11 Commission Report identified the lack of information sharing as a critical contributor to the national security deficiencies that led to the disastrous terrorist attacks in 2001. In the US construct, the Commission Report highlighted:

[t]he biggest impediment to all-source analysis – to a greater likelihood of connecting the dots – is the human or systemic resistance to sharing information. [The US national security framework emulated] a system that requires a demonstrated “need to know” before sharing. This approach assumes it is possible to know, in advance, who will need to use the information. Such a system implicitly assumes that the risk of inadvertent disclosure outweighs the benefits of wider sharing. Those Cold War assumptions are no longer appropriate. Agencies uphold a “need-to-know” culture of information protection rather than promoting a “need-to-share” culture of integration.⁹⁹

Although a different legal environment exists in the US to that in Canada, parallels can be identified based on the lessons of 9/11 to address the challenges associated with information protection and the sharing of information for national security reasons. In Canada, the same need-to-share culture complementing a whole-of-government approach remains a challenge to the marine security framework now in place.

Unfortunately, the NSP, as the catalyst for Canadian security transformation did not change the jurisdictional mandates of intelligence organizations, nor did it suggest a new management structure to address information sharing issues. In 2009, the Auditor

⁹⁹National Commission on Terrorist Attacks, *The 9/11 Commission Report* (Washington, DC: Government of the United States, July 2004), 417.

General's Report on National Security, noted: "...in Canada, as is the case with most governments based on the British (Westminster) parliamentary system, there is no single executive authority below the Prime Minister managing national security issues."¹⁰⁰ Without a single authority, a horizontal consensual construct is thereby required to address national security concerns vice single agencies or departments. Regrettably, the current management systems consisting of parliamentary committees and stakeholder working groups have not resolved the information sharing conundrum associated with sovereignty and security.

The Air India Flight 182 terrorist incident led the government of Canada to investigate potential inadequacies to governmental protocols that contributed to the disaster, and the *Air India Flight 182 Commission Report* identified information sharing as a considerable vulnerability for the Canada. Although the report focussed on the RCMP and the Canadian Security Intelligence Service (CSIS), the report's findings are relevant across the federal government and security sector. In rebuttal, the *Air India Flight 182 Commission Action Plan* outlines the mitigation strategies of the government to address identified deficiencies. Specifically, the government of Canada intends to:

...introduce legislation to clarify the authorities for information sharing for the purpose of national security; leverage technological innovation to facilitate and foster information sharing; and enable the review of national security activities involving multiple departments and agencies, and create an internal mechanism to ensure accountability and compliance with the laws and policies governing national security information sharing.¹⁰¹

¹⁰⁰Office of the Auditor General of Canada, "National Security: Intelligence and Information Sharing"..., 12.

¹⁰¹Government of Canada, *Action Plan: The Government of Canada Response to the Commission of Inquiry into the Investigation of the Bombing of Air India Flight 182*..., 7.

Although these steps will improve the current deficiencies associated with intelligence and information sharing, the mitigation measures will take time, and the current intelligence matrix and government construct remains a challenge for the whole-of-government security system, and the maritime security framework now in place for Canada.

OBSTACLES TO THE WHOLE-OF-GOVERNMENT APPROACH

The idea of federal government organizations working together towards effectively the same end-state is not a new concept in Canada. The different components to the marine security arrangements naturally fall within the mandates of different agencies or departments in such a way that no one government organization can be identified with the overall marine security responsibility. Achieving a collaborative environment to respond to marine security with active co-ordination has always been a fundamental responsibility of government with competing priorities and departmental interests.¹⁰² As the threat environment grows in complexity, an evolved integrated process is needed to respond to its demands. Co-ordination in the security realm is required for the effective functionality of Canada's marine security framework. The mechanisms designed to address collaborative activities across the agencies or departments of government are better referred to as being horizontal management, joined-up government or whole-of-government approaches.

¹⁰²Herman Bakvis and Luc Juillet, *The Horizontal Challenge: Line Departments, Central Agencies and Leadership* (Ottawa, ON: Canada School of Public Service, 2004), 9.

Herman Bakvis and Luc Juillet in their work entitled *The Horizontal Challenge*, define Horizontal Management as being “...a set of activities between two or more organizational units, where the units in question do not have hierarchical control over each other and where the aim is to generate outcomes that cannot be achieved by units working in isolation.”¹⁰³ Better referred to as the whole-of-government approach, it is synonymous with the challenges associated with governmental co-ordination, horizontal collaboration and integration. The approach encompasses a contemporary method in attempt to combat the pathology of departmental government. Also labelled departmentalism, or working in separately in isolation causing departmental personnel to protect their own interests rather than advancing government programmes.¹⁰⁴ As a result, traditional barriers and inter-agency politics often inhibit efficiencies. This relates to the marine security framework as its very construct is reliant on collaborative planning and interdepartmental activities.

The whole-of-government approach, as with any systematic process, introduces a change to the traditional way of conducting business. Since 9/11, attention has focussed more on the unified construct to respond to marine security for Canada. In many ways, the inherent challenges associated with this horizontal mechanism surround governance, or the process that permits organizations to make important decisions, and determine how they will render account.”¹⁰⁵ The two most significant elements that led

¹⁰³Bakvis and Juillet, *The Horizontal Challenge: Line Departments, Central Agencies and Leadership...*, 8.

¹⁰⁴D. Kavanagh and D. Richards, "Departmentalism and Joined-Up Government: Back to the Future?" *Parliamentary Affairs*, Vol. 54, No. 1 (2001), 3.

¹⁰⁵Andrew Archibald and Trefor Munn-Venn, *Building Resilience: Leadership and Accountability* (Ottawa, ON: Conference Board of Canada, March 2008), 1.

to the challenges associated with whole-of-government approach are responsibility and accountability, as well as institutional structure and culture. These elements have important linkages to the marine security framework as its execution is interdepartmental and collaborative in nature in the federal sector of government.¹⁰⁶

Governmental responsibility is the foundation to the Canadian parliamentary system built on the Westminster model of government.¹⁰⁷ In situations involving whole-of-government initiatives, departmental accountability becomes blurred when it spans across elements of the Canadian government organization. Both responsibility and accountability suffer as a result of this alteration from traditional lineage linked to departments. As well, departmental programs will normally be altered to fit the needs of horizontal initiatives, but in the process may no longer fit the tight criteria of the authorities of which funding was initially approved.¹⁰⁸ Such a breakdown in responsibility can erode the legitimacy of Parliament and pose issues for preserving ministerial accountability for the fulfillment of respective departmental mandates, jurisdictions and overall program delivery.

While horizontal initiatives steer governmental organizations sometimes outside the boundaries of their respective jurisdictional mandates, a lack of governance delineating departmental accountabilities and responsibilities can create an environment of gross disorder, the marine security realm being a prime example. How are results

¹⁰⁶Peter Allan, *Canada's National Security Framework: Fragile Fortress on a Formidable Foundation?* (Toronto, ON: Canadian Forces College, 2009), 43.

¹⁰⁷C. E. S. Franks, *The Parliament of Canada* (Toronto, ON: University of Toronto Press, 1987), 227.

¹⁰⁸Bakvis and Juillet, *The Horizontal Challenge: Line Departments, Central Agencies and Leadership...*, 24.

achieved when there is little control?¹⁰⁹ In the security sphere for Canada, problems pertain on clarifying lines of accountability, departmental responsibility as well as overall governance for overall effect. The MSOC initiative provides a good example of a programs need, driven by the NSP of 2004, which means no one government agency or department has ultimate ownership to enforce governance.¹¹⁰

Another barrier to the whole-of-government approach is situated with the culture of public service and the institutional structure of the federal government. At the centre of government process, departments continue as crucial holders of resources and remain dominate in policy making and delivery.¹¹¹ The whole-of-government approach contradicts the fundamental structure of government and could potentially force agencies or departments to lose potential control over policy and resources. The structures created in government to better facilitate departmental management have also created a ‘stove-pipe’ environment and the emergence of organizational cultures that protect their associated power base. Horizontal whole-of-government programs ultimately suffer as they fall short of core departmental mandates. As such, the marine security framework of Canada is negatively affected as a result of its horizontal make-up of a number of stakeholders without high-level governance.

Although internal political differences and cultural misalignments of the stakeholders in the marine security domain will always be contributors to poor co-

¹⁰⁹Quote cited from D. W. Eggars and W. Goldsmith, “Government by Network The New Public Management Imperative” in work by Bev Johnson, *Strategies for Successful Joined Up Government Initiatives* (Perth, AU: John Curtin Institute of Public Policy, 2005), 21.

¹¹⁰C. Pollit, “Joined-Up Government: A Survey,” in *Political Studies Review*, Vol. 1, No. 1 (January 2003), 42.

¹¹¹Kavanagh and Richards, "Departmentalism and Joined-Up Government: Back to the Future?"..., 17.

ordination, education to the whole-of-government is another critical factor to address its manifestation. Quite often, some departments are unsure of their respective counterparts' roles, responsibilities and capabilities, which can lead to unnecessary mistrust and duplication of effort.¹¹² All components to the marine security of Canada must establish an understanding of the capabilities and roles of stakeholder agencies or departments, and all organizations that have a role to play in marine security to strengthen the trust and cohesive relationships between partner agencies or departments and stakeholders.¹¹³

A final contributor to the difficulties associated with the whole-of-government approach is career promotion and socialization in the public service. The *soft-skills* required to create and manage joined up agreements are not normally rewarded by traditional governmental processes.¹¹⁴ These critical soft skills consist of a unique collection of communication techniques that provide a fundamental ability to collaborate faster, easier, and with a wider range for whole-of-government stakeholders.¹¹⁵ These skills enable system information sharing, team building and assist in networking efforts leading to horizontal integration. This environment translates to trust-building among government organizations to better enable whole-of-government initiatives to be successful as most departments are unwilling or ill-equipped to take on the marine security leadership roles alone in entirety.

¹¹²Tim Lannan, "Interagency Coordination within the National Security Community: Improving the Response to Terrorism," in *Canadian Military Journal*, Vol. 5, No. 3 (Autumn 2004), 54.

¹¹³*Ibid.*

¹¹⁴Johnson, *Strategies for Successful Joined Up Government Initiatives*..., 5.

¹¹⁵Pollitt, "Joined-Up Government: A Survey"..., 42.

Canada's marine security framework is dependant on the whole-of-government approach in order to maximize efficiency and capitalize on jurisdictions and departmental mandates. The nation's political construct necessitates a horizontal construct which introduces a number of factors leading to obstacles. In order to take full advantage of the whole-of-government approach, Canada must accept that the current construct of government is not congruent with a horizontal approach, and challenges will remain to exist without fundamental transformation to the organizational construct it portrays. Developing leadership skills to function in the horizontal manner is a new concept, and in order to maximize effectiveness, the government must embrace the organizational changes necessary to counter the whole-of-government challenges as identified to ensure congruent activity is maximized across the various boundaries of the federal governmental security sector.

CONCLUSION

As a coastal state with maritime interests, Canada has made significant strides in achieving an effective security structure to address the maritime realm. Canada's maritime area of responsibility encompasses some 4.7 million square kilometers, and asserting regulation, projecting sovereignty and effectively providing security amounts to an enormous undertaking.¹¹⁶ In order to maintain security in Canada's maritime environment a comprehensive, cooperative and integrated federal response that is horizontal by its very nature is required. To this end, the government of Canada has made significant investment across a range of federal sectors to enhance national security, including that in the maritime realm with a robust marine security framework.

Prior to the end of the Cold War, the attention in the maritime domain in Canada was largely focused on safety and the effective movement of marine traffic. That changed following the terrorist attacks on September 11, 2001, as Canada reassessed the vulnerabilities to its transportation system. Today, the Canada's maritime domain is subject to a number of potential security threats and challenges based on its sheer magnitude and vital importance to domestic lines of communication and trade. To this end, the government of Canada has made significant investment across a range of federal sectors to enhance national security. As stated by Lauren Kinney, the Director General of Marine Security at Transport Canada, "Canada's marine security involves a complex web of responsibilities, jurisdictions and activities... That said, over the last few years there has been a dedicated focus on

¹¹⁶Department of National Defence, *Strategic Issues – Domestic Marine Security: Enhancing the Security of Canada's Marine Transportation System* ...

ensuring that an elaborate security regime is in place to protect Canada's maritime interests."¹¹⁷ Canada invested in change to address these potential security concerns and the associated risks they pose to Canadians from the country's three-ocean perimeter.

Canada has gone some way in successfully introducing and establishing an effective, horizontal, whole-of-government framework to address maritime security threats that challenge the nation's security from Canada's seaward approaches. This capability has been accomplished to address the current-day security threats and to reassure the hyper security-conscious US to enable a combined continental security system. Canada stands prepared to meet all potential or real threats in the maritime sphere to improve effectively domestic national security and the security of North America with a western approach to counter ensuing threats.

Given the importance of the federal government organizations tasked with maritime responsibilities, there have been, and continue to be, significant expectations within the federal government sector to exercise a robust post-9/11 marine security regime. The new security framework established since 2004 focuses on the foundation policies for maritime specific activities and the associated strategies that are now in place to delineate their execution. *Securing an Open Society* – Canada's NSP, presented an ambitious plan to complement federal governmental organizations to provide safety and security to Canadians under the guise of national security. Canada's marine security framework follows this policy concept to promote security activities in the maritime domain in a construct promoting sovereignty and protecting Canadian

¹¹⁷Laureen Kinney, "Canada's Marine Security," in *Canadian Naval Review* Vol. 4, No. 4 (Winter 2009), 19.

national interests. This is amplified with subordinate policy specific to the maritime realm reinforcing the marine security framework responsibilities to the maritime domain.

The key basis for the whole-of-government approach to national security in the maritime domain is the Marine Security Operations Centres (MSOC) Project, which represents the foundation to Canada's marine security framework. Specifically, the project's operational mandate highlights the whole-of-government approach including the value that it brings to national security for the government of Canada. The MSOC now fill a void in the once vulnerable national security matrix and embody Canada's commitment to ocean-area protection from the ocean approaches, as well as the associated infrastructure in the maritime domain.

Efforts to strengthen security in the maritime domain remain a priority for Canada, but challenges exist that hinder the government's ability to realize fully the fundamental construct that the Canadian marine security framework represents. Despite issues with the Arctic and the obstacle based on the region's unforgiving cold climate and barren terrain, issues with information sharing and current legislation, and the inherent barriers with working a whole-of-government approach, Canada's marine security framework has never been stronger. Canada has built an integrated marine security system that ensures all necessary government resources for the maritime domain have the ability to be brought to bear in a collaborative way to protect Canadians and Canadian interests. This whole-of-government approach to marine security enables the nation to achieve more with the resources committed to marine security in an efficient and effective way.

Canada faces unique challenges based on its geographic position as well as its socio-political culture. Given the tenuous gap between marine security responsibility and capability, it is absolutely essential that the resources that do exist be used to their maximum efficiency. Strong regulation, collaboration and inter-governmental co-operation at the highest levels of Canadian bureaucracy are the stepping stone to protection against marine security threats and the preservation of Canada's maritime domain for generations to come.

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