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Canada has the largest coastline in the world measuring 243,792 kilometers. When internal waterways, economic exclusion zones (EEZs), contiguous zones, continental margin outside the 200-mile zone and territorial waters are added Canada has 9,880,000 square kilometers of water under its jurisdiction. To put this in perspective, Canada's land mass, the second largest country in the world, is only slightly larger at 9,970,610 square kilometers¹.

Canadians depend on these waters for commerce, fishing, transportation, offshore oil and natural gas and recreation. The Navy League of Canada, in a recent influential paper wrote, "Most homes and individuals use something almost every day that either has a maritime origin or has been transported by sea"².

In order for Canadians to maintain their high standard of living and economic prosperity, the Canadian coastlines on the East, West, and Arctic coast require adequate protection. However, according to the Senate Committee on Defence and Security, Canadian coastlines and borders, due to their massive size, are largely unguarded and under-defended.³ Additionally, from a terrorist attack perspective the Senate Committee believes that our USA neighbors are "clearly the bull's eye and Canada, it is fair to say, is on the next ring out. We are so positioned because of our military bonds with America,

¹ Fred W. Crickard, and Peter T. Haydon. *Why Canada needs Maritime Forces*. Canada: (Napier Publishing Inc: for the Naval Officers' Association of Canada 1994), vii

² Canada, Maritime Affairs, The Navy League of Canada, *Canada, An Incomplete maritime Nation*. 2003, 6

³ Canada's Coastlines: The longest Under-defended borders in the world. <http://www.parl.gc.ca/37/2/parlbus/commbus/senate/com-e/defe-e/rep-e/rep17vol1part2-e.htm> accessed 08 March 2005.

our similar lifestyles, and our integrated markets"⁴. Is there a likelihood of terrorist attack within Canada? Jim Judd, Director of Canadian Security Intelligence Service, believes Canada remains a valid target for attack. Osama Binladen and AL QAEDA operatives have mentioned Canada is a valid target three times. Reconnaissance operations conducted within large urban centres continue, and CSIS assesses Canada in not exempt from the threat of serious attack.⁵

The U.S. government is aware that Canada is a potential route for those planning to strike against America. Canadians enjoy economic prosperity due to the large percentage of Canadian exports proceeding to the United States.⁶ The potential for terrorist organizations to ship personnel or equipment via Canadian marine borders is a very real possibility. The Senate Committee on Security and Defence argues that this scenario is more a question of "when" than "if" and a direct attack within Canada has a similar level of probability.⁷ Understanding the nature of the threat, the Government of Canada must take steps to protect the security of Canadians, ensure borders remain open for economic stability and wealth generation, and provide a clear signal to the United States that Canada is actively pursuing policies and programs to remove terrorist threats from Canada.

The Canadian government has acted and produced *Securing an Open Society: Canada's National Security Policy (NSP)*. The policy covers an Integrated Security

⁴ Ibid...Vol I.

⁵ Presentation by the director Canadian Security Intelligence Service.http://www.csis-scrs.gc.ca/eng/miscdocs/director20050222_e.html

⁶ Canada's Coastlines: The longest Under-defended borders in the world. <http://www.parl.gc.ca/37/2/parlbus/commbus/senate/com-e/defe-e/rep-e/rep17vol1part2-e.htm> accessed 12 March 2005.

⁷ Ibid...Vol I.

System, Intelligence, Emergency Planning and Management, Public Health Emergencies, Transportation Security, Border Security and International Security. The Transportation Security chapter's primary focus is marine domestic security.

The Government of Canada is clearly serious about improving Transportation security and in particular marine security. A proffered six-point plan that includes, first, new responsibilities and accountability frameworks for Minister of Transport, Minister of Public Safety and Emergency Preparedness, and Minister of National Defence. Second, establishment of Marine Security Operations Centres, staffed by various Other Government Departments to deal with marine security threats. Third, increasing on-water presence to conduct surveillance, interdict and board suspect shipping. Fourth, enhancing secure communication infrastructure of all departments concerned with marine security. Fifth, closer working relationships with Canadian and United States marine agencies. Sixth, strengthening security at ports and other marine facilities.⁸ The comprehensive six-point plan is a start, but executing the plan will be problematic and cumbersome due to government stovepipes and leadership issues.

At present, the government enforces marine security by various acts of parliament, laws and regulations. However, Other Government Departments (OGDs) who provide for marine security under these acts do so in isolation of each other. The Senate Committee on Security and Defence "believes that the Government of Canada has a responsibility to end the fragmented and largely ad hoc defence of Canada's coastlines"⁹. Failure to

⁸ Department of National Defence. *2004 Securing an Open Society: Canada's National Security Policy*. (Canada: April,2005), 35.

⁹ Ibid...9.

address the situation will lead to continued costly duplication of efforts, and potentially missing information vital to the security of Canada.

In an effort to minimize duplication and commence intra-agency cooperation on the marine domestic front, the government of Canada has stood up two Marine Security Operations Centres (MSOCs) located in Halifax, Nova Scotia and Esquimalt, British Columbia. Although the MSOCs will bring together all marine related OGDs, the question of who is in charge is still unresolved. Responsibility for policing or constabulary roles within Canadian waters is spread out among RCMP, Fisheries and Oceans, and Customs and Immigration. For the most part, The Navy is involved only when one of the above departments requires a conveyance. In order for the government of Canada to end the "ad hoc defence" of Canadian waters, the Navy needs to be more engaged with domestic marine security. The MSOCs require one department to be in charge and allocate resources from each OGD to enhance marine security along Canada's coastlines. The department charged with this responsibility requires sophisticated command and control systems, training and practice in surveillance operations and an ability to use graduated force. *The Canadian Navy is ideally suited to take the leadership role within the MSOCs and use naval forces in a constabulary function within waters under Canadian jurisdiction.*

The subject of constabulary roles for the Canadian navy is often controversial because the senior naval leadership views constabulary roles as secondary or tertiary roles for naval ships. The vast majority of senior naval leaders spent their entire careers during the Cold War. Mid Atlantic Anti-Submarine Operations combined with NATO overseas operations were prominent. The way of thinking and operational mindset is

blue-water in nature and not domestic or constabulary. Additionally, the leadership believes that if the Canadian navy takes ownership or responsibility for constabulary functions within the Canadian Area of Responsibility (AOR) the government will automatically delegate these added responsibilities without increasing staffing levels or funding. However, such a view is too narrow and without justification. If a proper business case is presented, the political leadership can be educated to appreciate the value of the navy contributing towards a robust marine domestic security complete with a more vigorous constabulary function. Many critics elude that Canadian waterways are unguarded and no government department is taking the leadership role in ensuring that Canadian waters are under a watchful eye, patrolled and a Canadian presence established to counter any potential threats. The Canadian Navy should take charge and assume that leadership role.

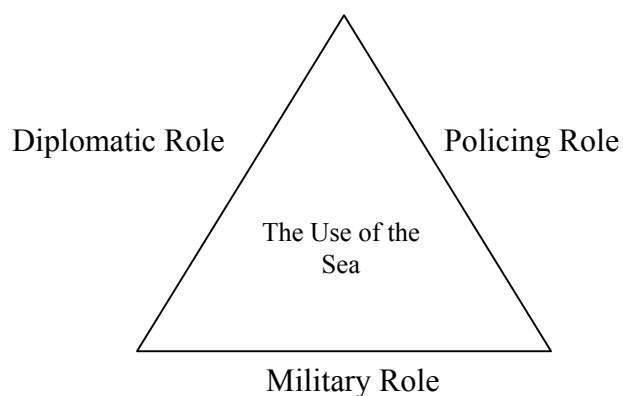
To support the thesis, a thorough understanding of constabulary functions is required. Establishing importance of constabulary roles for navies is the first step of this analysis. Academic writings on the subject indicate a general acceptance and concurrence for naval forces to undertake constabulary roles within national boundaries. Arguments, pro and con, to situate the paper within this field is the first task. On completion of the academic review, the paper examines surveillance methods used by various OGDs to gather information, synthesize information and take appropriate action based on the information. Common themes throughout these sections are OGD relationships and areas appropriate for naval involvement. A critical assessment and analysis throughout these sections supports the argument that the Canadian navy is the only OGD capable of leading the new MSOCs. Additionally, reviewing the OGD fleet leads to the logical

conclusion that the navy must engage in on-water enforcement to support the new National Security Policy. Utilizing meager Canadian naval forces requires sound judgment due to competing requirements for these national resources. Therefore, a SWOT analysis is an appropriate method to provide sound and logical recommendations on using naval forces for constabulary roles. The business sector often uses SWOT analyses prior to embarking on expensive product offering or new services for the consumer.¹⁰ Given the scrutiny and requirement for sound business cases for government budgets, the SWOT analysis approach is highly suitable. On completion of the SWOT, recommendations are summarized and closing comments reinforce the thesis.

DEBATE ON CONSTABULARY ROLES

To understand the constabulary roles of navies, understanding functions of navies is important. Ken Booth describes the "functions of navies can be conceived as a trinity"¹¹.

Figure 1: The function of navies.



¹⁰ SWOT is a business term, which stands for Strengths, Weakness, Opportunities, Threats. The SWOT analysis is used to analyze business decision prior to embarking on new ventures.

¹¹ Ken Booth, *Navies and Foreign Policy*. (New York: Holmes&Meier Publishers, Incorporated, 1979), 15.

Starting at the base, the Military Role forms the base of the trinity. It is important to understand why the military role forms the base of the trinity. For it is the navies ability, underlying or otherwise, to use force that gives credence to the diplomatic and policing roles. Navies need to be able to fight and project violence as required by their governments. The ability to project power at home or abroad is the fundamental rationale for a navy.¹² The Diplomatic role "of navies is concerned with the management of foreign policy short of the actual employment of force"¹³. Nations often use their navies as an extension of national prestige. Canadian naval port visits around the world are often coordinated with the Department of Foreign Affairs to provide settings for ambassadorial relationships and "project a favourable general image of one's country".¹⁴ When a nation wants to "negotiate from strength" the stationing of a formidable naval force off a nation's coast can "improve one's ability to affect the course of specific diplomatic negotiations".¹⁵

The third side of the trinity, the policing role, is mainly concerned with sovereignty, resource protection, management and exploitation, and the maintenance of civil control. Naval units or Coast Guard vessels conduct these tasks closer to home in the TTW's, Contiguous Zones, and Economic Exclusion Zones¹⁶.

According to Booth, responsibility for Sovereignty, Resource enjoyment and maintenance of civil control are performed either separately or jointly by a navy or other

¹² Ibid...16.

¹³ Ibid...16.

¹⁴ Ibid...19.

¹⁵ Ibid...19.

¹⁶ Ibid...17.

maritime service. Within Canada, several departments such as Department of National Defence, Fisheries and Oceans, Royal Canadian Mounted Police, Customs and Immigration, and Municipal Police Forces perform these functions. The responsibilities for each of these actions are covered by various legislative acts, which restrict government departments from acting if an incident is discovered outside of their individual mandates and legislated authority. Additionally, some departments do not consider policing functions to be part of their responsibility. From a naval perspective, constabulary or policing is acknowledged as a role but low in hierarchy of priority. Booth eludes that the policing role is "not likely to appeal as an important mission to those navies which the jargon describes as 'blue water' "¹⁷.

Leadmark: The Navy's Strategy for 2020, details the roles and expectations for the Canadian Navy. Emphasis on expeditionary or blue water concepts and the ability of the navy to conduct sustained operations around the world fills the majority of the pages. Operation APOLLO is a prime example of this strategy. The 2005 International Policy Statement: Defence, collaborates this policy and remarks, "Canada has structured its military primarily for international operations, while the domestic role has been treated as a secondary consideration"¹⁸. Leadmark discusses domestic/constabulary functions but the strategy remains within the status quo of Sovereignty patrols, Aid to the Civil Power and assistance to OGDs¹⁹. Given the new security environment after 9/11, all naval

¹⁷ Ibid...18.

¹⁸ Department of National Defence. *2005 Canada's International Policy Statement; A Role of Pride and Influence in the world DEFENCE*. (Ottawa:Canada Communications Group), 18.

¹⁹ Department of National Defence. *2001 Leadmark: The navy's Strategy for 2020*. (Ottawa: Canada Communication Group), 40.

vessels patrolling domestic waters should have appropriate authority to act in a constabulary fashion to enhance Canadian marine security.

In 2004, The Centre for Foreign Policy Studies at Dalhousie University hosted their annual conference with focused topic, "The future of Canada's maritime capabilities: The issues, challenges and solutions in a new security environment".²⁰ A common theme throughout the conference was domestic versus expeditionary requirements. Vice-Admiral Buck stated that "the best and most logical military advice that I have, and will continue to provide government, is that in a complex dangerous world, Canada needs a balance of the right capabilities" to act both as a deterrent to "those that may wish to harm us [within domestic waters] and when necessary, to take the fight far beyond our coastal or offshore regions"²¹. Admiral Buck also indicated that expeditionary and domestic roles were "inextricably linked and Canada must be able to act both at home and abroad when she so chooses"²².

In support of Admiral Buck's comments, Joel Sokolsky stressed that the "Canadian Navy continue, and enhance, its present initiatives to take a leading role in maritime homeland security"²³. A senior Canadian Admiral and a noted scholar have both articulated the importance of acting and leading within the domestic marine environment.

²⁰ Canada, Dalhousie University, *The Future of Canada's Maritime Capabilities: The Issues, Challenges and Solutions in a New Security Environment* (Halifax, N.S. Conference Report, 18-20 June 2004)

²¹ Ibid...43.

²² Ibid...44.

²³ Ibid...44.

Canada's International Policy Statement: Defence also echoes the above statements. In particular, the policy statement indicates that the Canadian Forces "will re-examine their entire approach to domestic operations".²⁴

Thus, Canada possesses a naval strategy that is intertwined with both international and domestic concerns. As eluded in the International Policy Statement, the balance is heavily weighted towards the international front at the expense of domestic concerns. The "potential for another terrorist strike in North American remains high, leaving Canadians with a vulnerability that is likely to persist will into the future".²⁵ In order to combat this threat, the Canadian navy requires more presence within Canadian waters and robust constabulary roles. Improved constabulary functions should allow naval ships to actually stop, arrest or detain suspect vessels without embarked OGDs. Although the 2005 International Policy Statement is placing additional emphasis on domestic concerns, the government of Canada's commitment towards constabulary functions goes back to the 1971 White Paper.

In an earlier writing, Joel J. Sokolsky wrote about "Striking a New Balance" and the requirement of "other maritime roles"²⁶. This new balance and other maritime roles were linked in the 1971 White Paper and dealt with "non-military sovereignty protection and aid to the civil power".²⁷ However, due to conflicting responsibilities between OGD ministers, the domestic portfolio was back benched and quickly forgotten. The navy

²⁴ Department of National Defence. *2005 Canada's International Policy Statement; A Role of Pride and Influence in the world DEFENCE*. (Ottawa:Canada Communications Group), 18.

²⁵ Ibid...7.

²⁶ Donald McRae and Gordon Munro, *Canadian Oceans Policy: National Strategies and the New Law of the Sea* (University of British Columbia Economics Department and University of Ottawa Faculty of Law. The University of British Columbia Press.,1989), 194.

²⁷ Ibid...194.

continued with NATO commitments and considered the maritime or constabulary roles as low priority operations²⁸. This approach towards domestic security is similar for three successive White Papers.

When considering the defence priorities of Canada, it is useful to compare White Papers, analyze the priorities of the government, and compare against naval policy. The notable comparison of each White Paper is the similarities between priority 1 and 2.²⁹

Figure 2

	1971 White Paper		1987 White Paper		1994 White Paper
1	Protection of Canada	1	Alliance and Collective Defence	1	Protection of Canada
2	North American Co-operation and Collective Defence	2	Protection of Canada	2	Preservation of Canada-US Defence Alliance
3	International Peacekeeping	3	Peacekeeping/Peaceful Settlement of Disputes	3	Contributing to International Security

When reviewing the table above it would suggest, "the navy's primary roles are increasingly based on diplomatic and constabulary functions"³⁰. Protection of Canada, and North American Collective Defence issues, are close to home and according to Booth thus constabulary in nature. The Canadian government's priorities are clear, however,

²⁸ Ibid...194.

²⁹ Laura J Higgins, *Examining the "Adjusted Course" of the Canadian Navy in the 'New World Order'*. (Ann Arbor, Mi: UMI Dissertation Services.December 2000), 102.

³⁰ Ibid...92.

naval policy during all three white papers still considered the constabulary roles secondary and tertiary priorities.³¹

Naval policy is expected to change significantly based on the direction provided in the 2005 International Policy Statement: Defence. The Canadian Navy is ideally suited to embark on constabulary roles within Canadian waters. During the 1995 Turbot War off the Grand Banks of Newfoundland, the Canadian Navy proved most capable in contrast to the performance of the Canadian Coast Guard. According to Peter T. Haydon of Dalhousie University, "the Coast Guard resorted to use of force imprudently and without traditional Cabinet authority...and the Coast Guard for this reason should not be used for intervention tasks again".³²

Another author, Dr. Nicholas Tracy of the University of New Brunswick, also agrees that the Canadian navy performed admirably during the Turbot War of 1995 and concludes that, "the principal strategic function of the Canadian Navy in the coming decades will continue to be the provision of distant cover for Canadian constabulary authority off Canada's coasts"³³. Additionally, the participation in constabulary tasks "reduces the load on civilian services, which provides a degree of political cover for the navy budget"³⁴.

³¹ The author has been going to sea since 1980. Throughout this time, the only constabulary functions performed were fishery patrols and occasional RCMP operations. All of these operations were conducted with OGDs embarked. Naval personnel never undertook dedicated policing or constabulary roles.

³² Martin Shadwick, "The Coastal Patrol Conundrum," *Canadian Military Journal* 5, no. 4 (Winter 2004-2005): 92-93.

³³ Ann L Griffiths, Peter T Haydon and Richard Gimblett, *Canadian Gunboat diplomacy the Canadian navy and Foreign Policy* (The Centre of Foreign Policy Studies Dalhousie University, 1998), 239.

³⁴ Ibid...239.

As advocated in the thesis statement, active naval participation in constabulary roles achieves increased security within domestic marine waters. In addition, participation relieves the strain placed on lesser-equipped and manned OGDs. Improving value of each tax dollar is of prime concern to the Canadian government and using the navy in a complementary fashion with other OGDs makes economic sense. This thought process is evident in the selection of the location of the MSOCs.

The MSOCs will bring together many like-minded OGDs whose main concern is marine domestic security. A sovereign state must be able to control waters under its jurisdiction. For Canada, this requirement means sea control within the 12 nautical mile territorial waters, the 200 nautical mile exclusive economic zone and adjoining areas of the continental shelf. According to Peter T Haydon, maintaining control of waters under Canadian jurisdiction requires three elements to be in place. Who is using the waters and why, government authority within these waters, and the ability to respond to any violations within these waters.³⁵ This is a tall order, and according to the Senate Committee on Defence and Security, the government of Canada is failing to achieve these three elements. What is now required is new and unique methods to improve the situation, because the status quo is not working.

Another look at Booths model conducted by Laura Jean Higgins for her Masters of Arts "Examining the 'Adjusted Course' of the Canadian Navy in the 'New World Order' " postulates another model that could have significant impact on improving marine domestic security. Higgins suggests, "projection of force functions are no longer its

³⁵ Peter T Haydon, *Sea Power and Maritime Strategy in the 21st Century: A "Medium" Power Perspective. (Maritime Security Occasional Paper No. 10. The Centre of Foreign Policy Studies Dalhousie University Press), 50.*

[Navy] primary raison d'etre, and it now appears that the functional triangle should be rotating on a case-to-case basis instead of resting primarily on the military base"³⁶.

When naval ships are alongside in Canada, their focus should rest solely on policing or constabulary functions. The Navy is the logical choice to provide sound leadership within the MSOCs and drive the team steadfastly towards the goals within the National Security Policy. Key among these goals is the integrity of marine borders between Canada and the United States.

A recent paper from IRPP Policy Matters by Joel J. Sokolsky is the security relationship between Canada and the United States. Washington's concern over border security and "threats that might originate in or come through Canada" has placed increased pressure on Ottawa to counter the threat.³⁷ Responsibility for policing Canada's maritime domain is also becoming increasingly more important to the Americans.³⁸ The American public and many U.S. government officials perceive the U.S./Canadian border as porous. This leads to increased pressure to maintain awareness and presence within waters of Canadian jurisdiction.³⁹ The Canadian government has several departmental fleets; however, there is no coordination between them to bring about significant impact on marine domestic issues. Which OGD becomes the leader? Sokolsky argues, "the Canadian Navy must continue to enhance its present initiatives and take the leading role

³⁶ Ibid...91.

³⁷ Joel J. Sokolsky, "Guarding the Continental Coasts: United States Maritime Homeland Security and Canada," *IRPP Policy Matters* 6, no 1 (Spring 2005): 9.

³⁸ Ibid...9.

³⁹ Ibid...10.

in Canada's maritime domestic security."⁴⁰ If the status quo persists, and Canadian OGDs remain loosely associated in an ad hoc manner, the United States will commence with their own initiatives to protect the U.S./Canadian border.

As mentioned above, the United States is very concerned that terrorist's organizations are infiltrating the U.S. due to lack of security at Canadian borders. The Ressam case in Port Angeles justifies this sentiment. The "9/11 commission's report was highly critical of the lack of coherent policy regarding the northern border and the lack of resources devoted to it".⁴¹ The United States is not waiting for Canada to improve the situation and has instituted "the Department of Homeland Security's Immigration and Customs Enforcement Air and Marine Operations (AMO) division."⁴² An operational AMO is located in Bellingham, Washington. The purpose of the branch is to maximize security along the US - Canadian border. The branch consists of 69 law enforcement officers, pilots, aircrew and support personnel. They operate helicopters and fixed wing assets. These AMOs are proof that the U.S. are not waiting for Canadian participation in patrolling the borders. What is now required is increased marine patrols as outlined in the National Security Policy and the 2005 International Policy Statement. The Canadian Navy is the logical choice to commence patrols and constabulary type roles.

DND is always wary of taking new roles and responsibilities without an increase in budget to offset new equipment or additional seetime. As mentioned previously, naval policy has always been about NATO and international commitments and not domestic concerns. During the Trudeau era, there was an emphasis on homeland security and

⁴⁰ Ibid...10.

⁴¹ Ibid...19.

⁴² Ibid...20.

sovereignty but without additional funding. Joel J. Sokolsky comments that the "navy was simply expected to undertake more national tasks with the existing, aging equipment."⁴³ According to Sokolsky, what is required now is "a combination of the 1971 White Paper's emphasis on sovereignty with the 1987 White Paper's call for an enhanced capability to apply force to protect Canada's ocean approaches".⁴⁴

Even with a recent healthy budget in 2005, the monies provided for improving naval capabilities is paltry. A minority government devised the budget with capital funds only being provided after another general election. Thus, all funding could be withdrawn if another party gains power. Politics and budgetary considerations aside, the Canadian navy has an obligation to contribute towards marine domestic security as outlined in recent government policy documents.

The National Security Policy (NSP) created the Marine Security Operations Centres (MSOCs). Two MSOCs, one in Halifax, N.S. and one in Esquimalt B.C. are in the process of being staffed from the Canada Border Services Agency, Transport Canada, RCMP and the Canadian Coast Guard. The aim of the MSOCs is "to streamline coastal surveillance and interdiction efforts and to increase on-water patrols to better intervene, interdict and board ships that may pose a threat to Canada"⁴⁵.

Reviewing appropriate vessels available for constabulary functions, it quickly becomes evident that the Navy possesses the best platforms. The RCMP has no ability to project their force outside of coastal waters and the Coast Guard is unable to use graduated force due to no training in arms. As explained by Joel Sokolsky "therein lies

⁴³ Ibid...46.

⁴⁴ Ibid...48.

⁴⁵ Ibid...52.

the Canadian maritime security conundrum: the vessels that provide the navy with a global projection capability maybe needed to better secure Canadian waters"⁴⁶. The direction provided in the International Policy Statement: Defence, places considerable new responsibilities on Maritime Forces. Leading in the following areas; on water response, MSOC coordination, developing common maritime picture, cooperation with OGDs in monitoring internal waters, and strengthening ties with US counterparts will mean significant more attention focused on marine domestic security.⁴⁷

This section has reviewed the academic perspective on policing/constabulary functions performed by naval forces and overwhelming established that naval forces are well positioned to conduct the full range of constabulary functions. In essence, this means that the Navy will be required to take additional responsibilities within existing infrastructure. When contemplating additional domestic tasks assigned to the Navy, many critics argue that additional ships are required to fulfill this new mandate. The financial climate is not conducive for another capital program after JSS and the replacement for the 280-class destroyer. The only answer for the Navy is to better utilize its fleet during surveillance and patrolling operations. Additionally, to become the leader within the MSOCs and to become more actively involved in constabulary functions an in depth analysis is required of all OGDs surveillance and response capabilities. The next two sections review all OGD surveillance and response programs and highlight the problems and gaps that require immediate attention.

⁴⁶ Ibid...52.

⁴⁷ Department of National Defence. *2005 Canada's International Policy Statement; A Role of Pride and Influence in the world DEFENCE*. (Ottawa:Canada Communications Group), 19.

SURVEILLANCE CAPABILITIES OF ALL OGDs

An overview of Canadian maritime areas of jurisdiction shows that the areas are enormous and consequently surveillance is incomplete. The government requires specific and general knowledge on; vessels entering Canadian waters, density of traffic, and what operations vessels are conducting. "Domain Awareness" is the term used to describe this knowledge.⁴⁸

The areas that fall under the government's purview fall into several legal and geographical categories: Territorial Sea, Canadian territory stretching 12 nautical miles off coastal base lines and charted according to treaties in the Great Lakes and border rivers. The Contiguous Zone, an additional 12 nautical miles beyond territorial seas; by international law, Canada is allowed to prevent infringement of customs, fiscal, immigration or environmental laws up to 24 nautical miles from its coasts. The Exclusive Economic Zone, areas of the high seas extending beyond the contiguous zone extending out to 200 nautical miles from the coastline in which Canada is allowed jurisdiction over natural resources. Canada can generally only intercept and board vessels with permission of the flag state, if there is a national security concern, or if Canadian authorities are in hot pursuit from territorial waters.⁴⁹

⁴⁸ Canada's Coastlines: The longest Under-defended borders in the world.
<http://www.parl.gc.ca/37/2/parlbus/commbus/senate/com-e/defe-e/rep-e/rep17vol1part2-e.htm> accessed 15 March 2005, chapter 2.

⁴⁹ Ibid...chapter 2.

Combined, the Territorial Sea, Contiguous Zone, and Exclusive Economic Zone cover over 11 million square kilometers. In addition, within these areas, there are 250 ports and some 1700 vessels entering/departing each day⁵⁰.

Each OGD conducts domain awareness programs with limited sharing of information. In order for the Navy to organize and provide sound leadership within the MSOCs a complete understanding of surveillance programs is required. This information can then be used to make recommendations to avoid duplication and improve the overall domain awareness within Canadian waters.

DND PROGRAMS

Protection of Canada missions were delegated to the Department of National Defence (among other OGDs) in the 1994 White Paper. Among these missions are "to monitor activity for sovereignty purpose and to assist other government departments in achieving their goals. Building a plot of maritime activity contributes to the Protection of Canada mission".⁵¹ This plot is called the Recognized Maritime Picture or RMP. The RMP term used "to indicate that the picture has been evaluated prior to its dissemination".⁵² The RMP role in coastal defence is perhaps the greatest contribution that the navy makes to the surveillance picture. The Senate Committee for National Security and Defence commented that "the Canadian Navy's main role in coastal defence

⁵⁰ Canada's Navy: News & Information—Issues and Challenges. Surveillance and Canadian Maritime Domestic Security by Captain (N) Peter Avis http://www.navy.forces.gc.ca/mspa_news/news_issues_e.asp?category=4&title=14, accessed 16 March 2005.

⁵¹ Captain(N) Laurence LM Hickey, CD- Senate Committee for national Security and Defence 16 June 2003. <http://www.parl.gc.ca/37/2/parlbus/commbus/senate/Com-e/defe-e/witn-e/hickey1-e.htm> accessed 17 March 2005,2.

⁵² Ibid...2.

at the moment-and perhaps far into the future-is coordination of surveillance".⁵³ The collection of data for the RMP comes from a variety of Marine and Air Force units.

When naval ships and aircraft conduct operations within Canadian waters, whether during training or on passage, crews are always contributing to RMP activities. Contacts can be attained either visually, radar, or radio. Large merchant traffic provides information to Transport Canada by other means. If a vessel is contacted by radio [inside Canadian TTW], the vessel is under no obligation to provide any information. Canadian warships only conduct courtesy hailing. If the vessel is to be tracked or boarded inside Canadian Territorial waters a detachment from the RCMP is required. The Canadian Forces do not have any jurisdiction to arrest a vessel, board, or direct a vessel to do anything inside Canadian waters. The RCMP is the only department that enforces law within waters under Canadian jurisdiction. This area will be explored in the SWOT analysis with the intention of recommending that Naval Units have similar powers to greatly improve constabulary authority and contribute to a more effective domestic security.

The quickest method for the military to gather RMP information is using the Aurora aircraft. At this time, according the Senate Committee on Defence and Security the "Aurora fleet is undergoing a modernization program, but only 16 of 18 aircraft will be upgraded due to financial limitations"⁵⁴. Additionally, three older Maritime Patrol aircraft will be retired. Consequently, the ability of the Canadian Air Force to participate in all areas of Canadian marine jurisdiction is limited. The state of surveillance in

⁵³ Canada's Coastlines: The longest Under-defended borders in the world. <http://www.parl.gc.ca/37/2/parlbus/commbus/senate/com-e/defe-e/rep-e/rep17vol1part2-e.htm> accessed 15 March 2005, chapter 2 and 3.

⁵⁴ Ibid...chapter 3.

Canadian waters is severely lacking and as illustrated in the quote below the Canadian Air Force has limited resources to fulfill their surveillance missions:

We have no standing naval patrols on either coast that are capable of keeping watch over our maritime littoral . . . The Canadian Air Force lacks the resources for aerial reconnaissance over any of our major ocean and sea going areas. When they conduct occasional patrols, they are forced to use antiquated aircraft, the Aurora patrol aircraft. These antiquated aircraft are functioning with obsolete sensor systems and without the latest technology.⁵⁵

The impact of limited Air Force aircraft dedicated to maritime surveillance requires that alternate service methods be generated. The Navy is quite good at generating an RMP and dovetailing in other sources to produce the best picture available. Within the MSOCs the Navy can contribute by organizing and synthesizing all surveillance information from other OGDs. One area, under naval control and will greatly contribute towards the RMP is High-frequency surface wave radar.

High-frequency surface wave radar (HFSWR) is a new technology developed by DRDC Ottawa and Raytheon Canada Limited. "High frequency electromagnetic signals are vertically polarized and propagate along the ocean surface. Thus, they can detect low flying aircraft and surface targets beyond the horizon"⁵⁶.

Two systems are presently operational, located as per figure 3. These systems can operate out to 200 nautical miles in any weather condition. According to the Senate

⁵⁵ Ibid...chapter 3.

⁵⁶ Defence Research and Development Canada, "HFSWR: High Frequency Surface Wave Radar" http://www.ottawa.drdc-rddc.gc.ca/publications/factsheets/RS-211-hfswr_e.asp; Internet; accessed 18 March 2005.

Committee on Security and Defence "these radars will go a long way to upgrading the current patchwork system of coastal surveillance"⁵⁷.

The intention of government is to have more of these sites, scanning high traffic areas and greatly contributing to the RMP.⁵⁸ The ability to detect vess0 0 12 392.981973o49495 626.15997 T

Noted Naval Intelligence Officer Daniel Y. Coulter suggests that the tactic of using small boats is directly linked to the methodology of terrorist organizations, and terrorist plots focus on simplicity and ease-of-use weapon systems.⁵⁹ To combat this threat, all OGDs vessels should always be actively contributing to the RMP and standing ready to conduct constabulary functions as required. For naval forces, contributing to the RMP is second nature; however, there is reluctance to engage in constabulary roles. The primary authority for enforcing constabulary functions at sea is the RCMP.

RCMP PROGRAMS

The RCMP uses an intelligence-based approach for their National Ports Strategy. Their mandate is "to prevent, deter and detect any illicit and/or terrorist activity, cargo or people at Canada's major marine ports that may pose a threat to national, US and global safety and security".⁶⁰ The RCMP is part of Canada's Interdepartmental Marine Working group and liaise with other OGDs, including DND. Moreover, the RCMP employs National Port Enforcement Teams (NPETS) to conduct investigations and surveillance at Canadian ports. The NPETS are only based at the biggest and most active ports, Halifax, Montreal and Vancouver.⁶¹ Due to operational security, the RCMP is often involved in surveillance operations that are often classified. DND frequently provides surveillance for RCMP operations.

The Senate committee reports that the "Government of Canada has clearly under funded the new RCMP contingents at the ports of Vancouver, Montreal and Halifax.

⁵⁹ Daniel Y. Coulter, "Terrorists and the Facts" (lecture, Canadian Force College, Toronto, ON, 23 February 05).

⁶⁰ Royal Canadian Mounted Police- Fact Sheets.
http://www.rcmp.ca/factsheets/fact_national_ports_e.htm accessed 18 March 2005.

⁶¹ Ibid...fact sheets.

Furthermore, there is the danger that organized crime will fan out to Canada's smaller ports".⁶² Due to the lack of vessels and personnel, the RCMP cannot effectively monitor all ports or contribute towards the RMP. The lack of qualified marine RCMP officers is considered a limiting factor in maintaining adequate constabulary control within Canadian waters. If specific naval personnel were given the appropriate legislative authority similar to RCMP officers, this would greatly ease the burden on the limited number RCMP officers.

COAST GUARD

The Canadian Coast Guard's range of vessels can also prove useful to other government departments. However, the vessels are only provided on an opportunity basis. The Coast Guard can support RCMP Coastwatch programs and drug interdiction, Icebreaking for DND, pollution prevention and advice to Transport Canada, harbour patrols for Port Authorities, and support to emergency operations in remote areas.⁶³ As already mentioned the Canadian Coast Guard is not an armed force. Therefore, similar to the navy they provide conveyance for RCMP as required. Contributing to the RMP is held back by lack of sophisticated communication equipment onboard Coast Guard vessels.

Although not funded for National Security roles, the Coast Guard understand the "importance of delivering on public expectation of operational readiness and integrated national contingency planning".⁶⁴ The Coast Guard contributes significantly to domain

⁶² Canada's Coastlines: The longest Under-defended borders in the world Senate...chapter 3.

⁶³ Canadian Coast Guard, "Roles and Responsibilities", http://www.ccg-gcc.gc.ca/overview-apercu/roles_e.htm; Internet; accessed 18 March 2005.

⁶⁴ Ibid...Roles and Responsibilities.

awareness via the Marine Communications and Traffic Services (MCTS) centres.

Additionally, "the Canadian Coast Guard Fleet is the only on-water demonstration of Canadian sovereignty within the Arctic Ocean. The legal issues surrounding sovereignty of the Canadian Arctic are complex and challenged by a number of countries".⁶⁵ The government of Canada has initiated programs to start rebuilding the Canadian Coast Guard so they can only contribute to marine domestic security.

The Canadian Coast Guard operates 15 BO-105 light twin-engine helicopters, five Bell 212, and five Bell 206 helicopters. These "helicopters conduct conservation and fisheries patrols and monitor ice flows".⁶⁶ Additionally, Coast Guard operates two fixed wing aircraft. One conducts pollution control patrols over the Great Lakes, St. Lawrence Seaway and the other flies fisheries and pollution mission on the east coast.⁶⁷ Of note, the Canadian Coast Guard operates 106 vessels of varying vintage, which require replacement or upgrading.

The government announced in the 2005 budget, \$300 million over 5 years for a series of initiatives to start rebuilding the Coast Guard fleet. For the Canadian Coast Guard, "this means the construction of 4 new mid-shore patrol vessels for the Great Lakes and St. Lawrence Seaway that will be jointly operated with the Royal Canadian Mounted Police".⁶⁸ This is an important step in intra-agency cooperation and "provides the means for the federal security partners to work together more effectively on these

⁶⁵ Ibid...Roles and Responsibilities.

⁶⁶ Canada's Coastlines: The longest Under-defended borders in the world Senate...chapter 3.

⁶⁷ Ibid...chapter 3.

⁶⁸ Fisheries and Oceans Canada, "Funding Announcements" http://www.dfo-mpo.gc.ca/media/infocus/2005/20050223/funding_2_e.htm; Internet; assessed 19 March 2005.

waterways".⁶⁹ The new vessels are a few years from delivery; therefore, the region will remain largely undefended. There is an opportunity for naval presence within this region, and the use of MCDVs crewed by naval reserves is a logical choice.

TRANSPORT CANADA

Transport Canada is playing an increasingly important role in marine security, marine infrastructure, and transportation of dangerous goods. Transport Canada assumed responsibility for policy and regulations concerning "pleasure craft safety, marine navigation services, pollution prevention and response, and navigable waters protection".⁷⁰ According to the National Security Policy, and already mentioned above, a six-point, \$308 million program is initiated to support marine security.⁷¹ The Minister of Transport is now becoming the focal point for "clarifying and strengthening accountability for marine security among the various responsible departments and agencies".⁷² Within the MSOCs, the Transport Canada personnel will play a significant role in explaining new programs and contributing to the RMP via new screening programs for the Great Lakes and introduction of the Automatic Identification System.

Transport Canada initiatives to enhance marine domestic security include the "enhanced security screening procedures for ships entering St. Lawrence Seaway - Great

⁶⁹ Ibid...New funding.

⁷⁰ Transport Canada, "Enhancing Transportation Security," <http://www.tc.gc.ca/majorissues/transportationsecurity/menu.htm>; Internet; accessed 21 March 2005.

⁷¹ Ibid...Transportation Security.

⁷² Ibid...Transportation Security.

Lakes."⁷³ The procedures include, "pre-screening of foreign ships before they arrive in the Great Lakes and onboard inspection of ships prior to proceeding to port".⁷⁴ Another initiative instituted immediately after 9/11 was the "Interdepartmental Marine Security Working Group (IMSWG)".⁷⁵ The IMSWG brings together numerous departments and agencies and seeks ways to improve marine security and surveillance. If the Navy is to take a leadership role within the MSOCs, the IMSWG plays an important role in communicating to other OGDs. The open communication between all OGDs is the only way to remove barriers and improve the domestic marine situation within Canada.

As mentioned above, transport Canada is introducing new surveillance programs to improve marine security. Specific surveillance programs include near real-time identification and tracking of vessels in Canadian waters. This system is the Automatic Identification Systems (AIS). Vessels over a certain tonnage will be required to fit AIS. This will assist with "long-range vessel identification and tracking" of large merchant traffic entering Canadian waters.⁷⁶ However, as already mentioned by Daniel Y. Coulter, the smaller vessels are the ones most likely to be used for an attack. The tracking of all small vessels with Canadian waters poses a significant problem. The Navy is perhaps the only OGD with the necessary experience to sort out a complex problem of this nature due to extensive training in RMP.

⁷³ Transport Canada, "Canadian and US Authorities agree to enhanced security screening procedures for ships entering St. Lawrence Seaway-Great Lakes" http://www.tc.gc.ca/mediaroom/releases/nat/2002/02_h033e.htm;Internet;accessed 20 March 2005.

⁷⁴ Ibid...Canadian and US.

⁷⁵ Ibid...Canadian and US.

⁷⁶ Ibid...Canadian and US.

Amalgamation of many responsibilities under Transport Canada indicates movement in the right direction to improve the ad-hoc arrangements for marine domestic security. However, the command relationships between Transport Canada, Public Emergency and Preparedness, and Department of National Defence are still convoluted with each department retaining control of their assets and invoking the cumbersome requests for support via departmental ministers. Transport Canada appears to be the convenient location of new government initiatives and policies but thin on the ground from an "in-charge" perspective. Within the MSOCs, it would be logical for the Navy to take the leadership role due to RMP management skill and proven abilities in command and control.

FISHERIES AND OCEANS

The Department of Fisheries and Oceans conducts significant air surveillance operations on fishing vessels operating within areas of Canadian jurisdiction. In 2004, the department received significant funding to increase the amount of air coverage. Additionally, during the same year, naval vessels logged 675 sea days for the Department of Fisheries and Oceans. Majority of these sea days were on the Grand Banks of Newfoundland. Air Surveillance operations in the Northwest Regulatory Area totaled 2540 hours.⁷⁷ The expanded surveillance program is "an efficient and cost-effective way for Canada to obtain intelligence on marine vessel activities".⁷⁸

⁷⁷ Fisheries and Oceans, "Monitoring and Surveillance Measures in 2004," http://www.dfo-mpo.gc.ca/media/backgrou/2005/enforcement_e.htm;Internet;accessed 22 March 2005.

⁷⁸ Transport Canada, "Government of Canada announces up to \$172.5 million in New Marine Security Projects," <http://www.tc.gc.ca/mediaroom/releases/nat/2003/03-gc001.htm>;Internet;accessed 23 March 2005.

The Department of Fisheries and Oceans air surveillance program "provides the capability to monitor domestic and foreign vessel activities, detect violations, pollution surveillance and environmental monitoring".⁷⁹ Information from these patrols is passed to Trinity and Athena, located in Halifax and Esquimalt. This model for conducting surveillance is the most thorough of all the OGDs. Information gathered is quickly entered into the RMP database and is available for use by all OGDs. With the reduction of Aurora aircraft and number of sorties dedicated towards maritime surveillance, the DFO programs are crucial to maintaining a complete maritime picture. Constant liaison is required to ensure that all surveillance information gathered by DFO contracts is quickly passed to the RMP managers.

PUBLIC SAFETY and EMERGENCY PREPAREDNESS CANADA.

A new department, The Department of Public Safety and Emergency Preparedness (PSEPC) was established on October 8, 2004. This new department includes "Royal Canadian Mounted Police (RCMP), the Canadian Security Intelligence Service (CSIS), the Correctional Service of Canada (CSC), the National Parole Board (NPB), the Canadian Firearms Centre, the Canada Border Services Agency (CBSA), and three review bodies".⁸⁰ The department's role "is to support the Minister in giving effective direction to the agencies responsible for policing and law enforcement, national security, corrections and conditional release".⁸¹ The RCMP, CSIS, and CBSA contribute collectively towards marine domestic security. Additionally, the Department of National

⁷⁹ Fisheries and Oceans Canada, "Air Surveillance Program," http://www.dfo-mpo.gc.ca/media/backgrou/2004/hq-ac20a_e.htm;Internet;accessed 23 March 2005.

⁸⁰ Public Safety and Emergency Preparedness Canada, "Backgrounders" http://www.psepc.gc.ca/publications/news/20041008-2_e.asp#PSEPC;Internet;accessed 23 March 2005.

⁸¹ Ibid...backgrounders and overview.

Defence works with PSEPC on national security issues. Unclear is command relationships between PSEPC Government Operations Centre and the DND Command Centre located inside National Defence Headquarters in Ottawa. The PSEPC Government Operations Centre "provides strategic level coordination and direction on behalf of the Government of Canada in response to an emerging or occurring event affecting the national interest."⁸² The DND Command Centre located within NDHQ also conducts similar tasks. More liaisons are required to sort out who has responsibility between the two operations centres.

The Government Operation Centre will "connect all departments and key stakeholders to direct the Governments planning for, and respond to emergencies of national significance".⁸³ Presently, it is not clear on how the Command relationships will work between all agencies, and who will be setting the priority for surveillance on Canadian waters. Due to lack of a national surveillance policy, each department maintains its own assets to fulfill their mandate. The national command centre in NDHQ and the MSOCs will quickly establish working and liaison protocols. The PSEPC Operations Centre is presently an unknown at this stage. Close attention is required by the Navy to ensure critical information is not lost.

SMART BORDER ACTION PLAN.

Canada and the United States embarked on a Smart Border Declaration and Action Plan on 12 December 2001. Based on four pillars, the action plan strives to ensure the secure flow of goods and people, while maintaining secure infrastructure. The final

⁸² Public Security and Emergency Preparedness Canada, "Government Operations Centre", http://www.psepc.gc.ca/about/ops_centre_e.asp;Internet;accessed 24 March 2005.

⁸³ Office of the Prime Minister, "New funding initiatives" <http://pm.gc.ca/eng/news.asp?id=187>;Internet;accessed 24 March 2005.

pillar is ensuring that information is shared between all agencies concerned.⁸⁴ Marine issues include NEXUS Marine. "NEXUS use iris recognition biometric technology by identifying an individual based on the unique patten of the iris - the coloured ring around the pupil of the eye."⁸⁵ In spring 2005, a NEXUS-Marine pilot program will be instituted in the Windsor/Detroit area. The program is expected to expedite customs clearance for people traveling by private boat between Canada and the United States.⁸⁶ The MSOCs will have Canadian Borders Services personnel, thus marine information contributing towards the RMP can be entered for portions of the Great Lakes region. An area, which has limited surveillance, programs at this stage.

A variety of surveillance systems, in use by various other government departments, is used to gather considerable information about the location and movement of vessels within Canadian waters. The complexity of government relationships applying to the Canadian Navy is staggering. The Navy needs to understand these unique challenges and continuously strive to gather the required information to improve the RMP. Conducting the surveillance and generating the RMP is the first step in marine domestic security. Once a vessel is located and illegal activity is suspected a response may be warranted. This leads to the next section, which is government response to situations within the waters of Canada.

⁸⁴ Department of Foreign Affairs and Trade, "Smart Border Action Plan Status report," <http://www.dfait-maeci.gc.ca/can-am/menu-en.asp?act=v&mid=1&cat=1&did=2465>; Internet; accessed 26 March 2005.

⁸⁵ Ibid...Smart Border.

⁸⁶ Ibid...Smart Border.

ON WATER PROGRAMS BY SPECIFIC OGDs

CANADIAN NAVY

The previous section explored surveillance methods of various OGDs and the potential leadership role the Navy could execute from the MSOCs. What stands out from the last section are the complex command arrangements and the requirement to break down barriers to ensure the Navy has access to appropriate surveillance information. As mentioned, the Navy is the logical choice to assume the leadership of the MSOCs due to extensive RMP training and an innate understanding of how to sort out the Command and Control issues of the various OGDs.

Once the surveillance information is gathered, synthesized and displayed, OGDs can use the information to track or intercept potential threats to Canada. The RMP database allows the MSOCs to know who is using Canadian waters. The next step is the government's ability to exercise authority within these waters, and most importantly react quickly and effectively to violations of the law.⁸⁷

Quick response with the right asset is necessary to ensure Canadian waters are safe and effectively monitored. Three government departments can effectively provide a presence at sea: Department of National Defence, Royal Canadian Mounted Police, and Department of Fisheries and Oceans. Each OGD has particular abilities and can contribute towards marine domestic security and constabulary functions.

Appendix 1 provides detailed information about the capabilities of the Canadian Navy. Constabulary functions that can be performed are surveillance operations, building

⁸⁷ Canada, Maritime Affairs, The Navy League of Canada, *Canada, An Incomplete maritime Nation*.2003.

the RMP by Trinity and Athena, presence operations, support to OGDs, and Fisheries patrols.

The Canadian Navy holds no constabulary power inside waters under Canadian jurisdiction. Naval vessels cannot divert, arrest, detain vessels, or crew without the appropriate OGD embarked. Additionally, Canadian Naval vessels only conduct fisheries patrols under a MOU with Department of Fisheries and Oceans, and only conduct drug interdiction operations after SOLGEN/DND consultations. The reason for these cumbersome arrangements is all power is held at the Ministerial level within each OGD.

Naval coastal patrols or sovereignty patrols are only conducted in conjunction with training exercises or transiting to another area. If a situation is discovered enroute, I.E. environmental spills, suspicious vessel activity, illegal fishing or logging, a naval vessel will only monitor or wait for appropriate OGD to enforce appropriate acts or legislations. It is commonplace for a naval vessel to report a situation and depart due to training or operational commitments elsewhere.

As already explained, the Navy can bring considerable skill, knowledge and leadership to bear within the MSOCs. The next logical step is to start using naval assets in a more robust and meaningful way towards to defence of Canadian waterways. Appendix 1 describes the 12 Canadian Patrol Frigates, 12 Maritime Coastal vessels and 6 Orca class inshore training vessels. These vessels are ideally suited to conduct constabulary functions within Canadian waters. As mentioned, the crews are highly trained and each ship has the ability to use graduated force if necessary. Given the size of the waters under Canadian jurisdiction, every government vessel is required to be active and contributing to the constabulary or policing role. Naval vessels primarily conduct

operations on the East and West Coasts of Canada; in contrast, the Canadian Coast Guard has a wider area of operations and a significantly larger fleet.

CANADIAN COAST GUARD

The Canadian Coast Guard owns the largest fleet within Department of Fisheries and Oceans. This fleet operates in five regions across Canada. They are Pacific, Central and Arctic, Quebec, Great Lakes and Maritimes, Newfoundland, and Labrador. Appendix 2 reveals that many of the vessels were constructed in the 1960s and 1970s. According to the Senate Committee on Defence and Security "the majority of the vessels are reaching the end of their useful lives and the federal government must make a decision soon as to whether to replace many of these vessels or reduce their tasks".⁸⁸ As the Coast Guard fleet is retired or restricted from offshore regions due to age, there will be additional demand on the navy to conduct more fisheries patrols. Needed is a modernization plan and new vessels to update the Coast Guard.

The 2005 budget increases funding for replacement of vessels. However, slow processes and requirement for tendering the contracts "it is likely to be 2010 at the earliest before the Canadian Coast Guard sees any new vessels".⁸⁹ The impact of the delay is that other OGDs might be required to perform the Coast Guards roles to ensure protection of Canadian waters.

The Canadian Coast Guard constabulary functions are limited to environmental protection and enforcement being the sole duty. Fisheries officers, who have specific knowledge and training, conduct the constabulary function of fisheries protection. Similar

⁸⁸ Canada's Coastlines: The longest Under-defended borders in the world Senate...chapter 1.

⁸⁹ Ibid...chapter 1.

to the Navy, the Coast Guard provide conveyance to active fishing areas for Fisheries Officers.

Fisheries Officers are responsible "to enforce the Fisheries Act; to protect the fishery resources and the fish habitat by doing patrols on land, sea and air"⁹⁰ In the North Atlantic Fisheries Organization areas in 2004, the Coast Guard provided 3 dedicated vessels, 21 enforcement officers, and 510 patrol days and the Department of National Defence contributed another 165 patrol days.⁹¹ During these patrols, the Coast Guard is not armed, nor do they have any ability to use graduated force. According to Coast Guard union representatives, "it would be a formidable endeavour to transform the Canadian Coast Guard from an unarmed civilian agency to a constabulary agency".⁹² In reality, the government of Canada has very few personnel that can actually perform armed presence at sea. Given that that the RCMP has no offshore capable vessels, the Navy is the only OGD that can effectively provide an armed vessel and crew. Further complicating this situation, the only OGD that can enforce criminal law at sea is the RCMP.

RCMP

Previously mentioned, the RCMP has limited fleet resources to actively patrol Canadian waters. Their entire fleet consists of five high-speed catamarans capable of 36 knots. Their homeports are 3 in Nanaimo, 1 in Prince Rupert BC, and final vessel located

⁹⁰ Fisheries and Oceans Canada, "Career Information Page" http://www.dfo-mpo.gc.ca/communic/fish_man/office/Fishery_Officer_e.htm;Internet;accessed 29 March 2005.

⁹¹ Ibid...career page.

⁹² Canada's Coastlines: The longest Under-defended borders in the world Senate...chapter 2.

in Burin, NFLD. At 18m in length, they are only suited for inshore duties in protected waters.⁹³

The RCMP mandate is policing responsibilities at large Canadian ports and the Great Lakes. As reported in the Senate Committee on Defence and Security, the RCMP funding is inadequate to provide these services.⁹⁴ Although the Coast Guard conducts presence operations in the Great Lakes, their mandate is only for SAR and vessel safety. The RCMP often uses DND and Coast Guard vessels to conduct operations. Detailed surveillance operations and advanced planning are usually the norm when conducting RCMP boarding's or seizure of suspect vessels. The RCMP clearly does not have the required resources or staffing to effectively patrol and react to situations within the diverse nature of Canadian waters. If the government wants to keep Canadians safe, then new partnerships and increased constabulary roles for the Navy are required.

The analysis of the government fleets has exposed various gaps in marine domestic coverage and who can actually perform constabulary function at sea. The government must have a range of options to counter any possible threat entering Canadian waters, inside Canadian waters or moving between the United States and Canada along marine borders. Canadian naval warships are what is needed now to shore up Canadian marine borders, commence with more robust constabulary functions, and to improve the presence in Canadian waters. To fully explore these possibilities, the SWOT analysis will determine if the Canadian Navy is situated to take these additional responsibilities.

⁹³ Canada's Coastlines: The longest Under-defended borders in the world Senate...chapter 2.

⁹⁴ Ibid...chapter 2.

SWOT ANALYSIS

The sections prior to the SWOT analysis have revealed that the government of Canada requires more surveillance and assets to protect Canadian waters. In each section, the Canadian Navy has proven to be a logical choice for leadership in the MSOCs and for the ships to become more actively involved in constabulary functions. To develop this hypothesis, a robust method to evaluate the Navy is required. The SWOT analysis "is a simple but powerful tool for sizing up a company's resource capability and deficiencies, its market opportunities, and the external threats to its future well-being".⁹⁵ The SWOT should show that the Canadian Navy is suited to conduct constabulary functions for the protection and "well-being" of Canada and analysis should prove this contention out. The business tools used for SWOT analysis compare one business against another. In this forum, comparison of DND, DFO, and RCMP constabulary roles might show that the present ad-hoc arrangement for protecting Canadian sovereignty is dysfunctional.

Prior to conducting the SWOT analysis, some preliminary work is required. The first step is to evaluate the departments that provide Constabulary functions to see how they compare. The technique used is "Strategic Group Mapping".⁹⁶ The technique used "for displaying the different market or competitive positions that rival firms occupy in the industry".⁹⁷ The first Strategic Map, (figure 4) is Strategic Group Map Surveillance Functions, and the second is Strategic Group Map Constabulary Functions (figure 5).

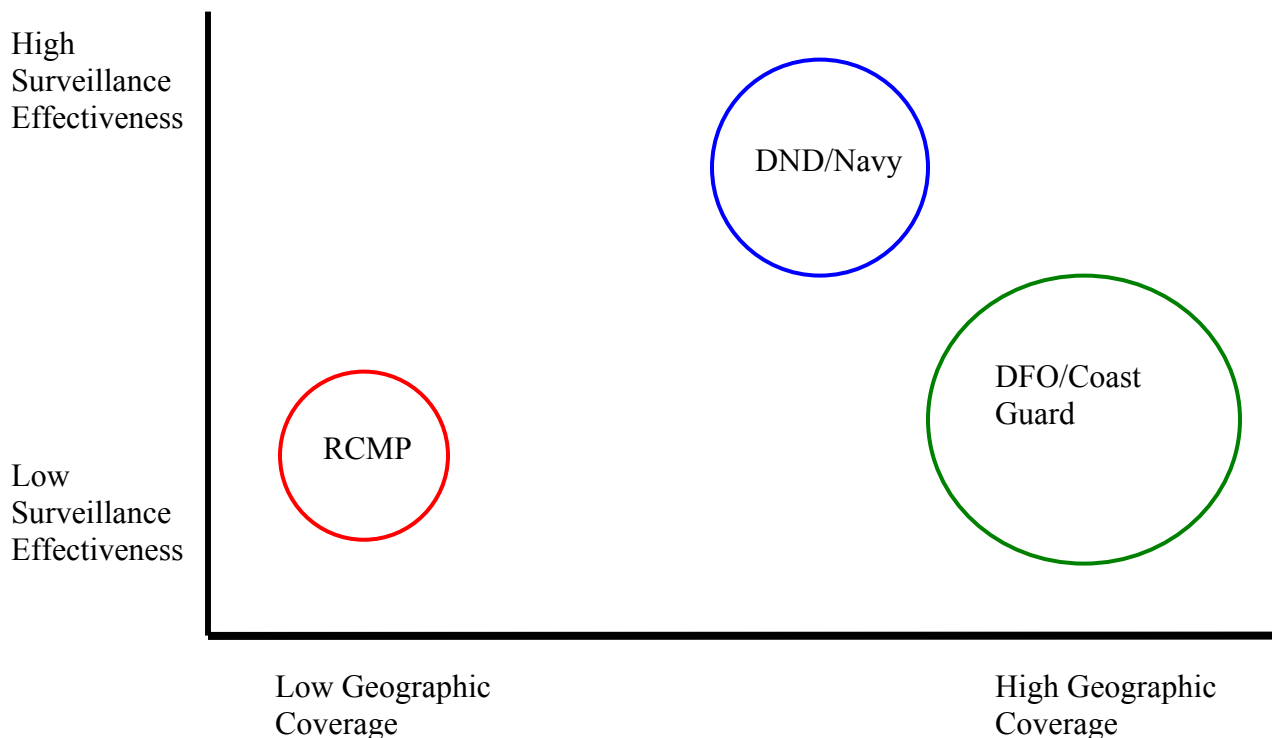
⁹⁵ Arthur A. Thompson Jr., A.J. Strickland III, John E. Gamble. "Crafting and Executing Strategy. The Quest for Competitive Advantage. (McGraw-Hill Irwin 2005),89.

⁹⁶ "Crafting and Executing Strategy. The Quest for Competitive Advantage...75.

⁹⁷ Ibid...75.

Strategic Group Map - Surveillance capability versus geographic area

Figure 4

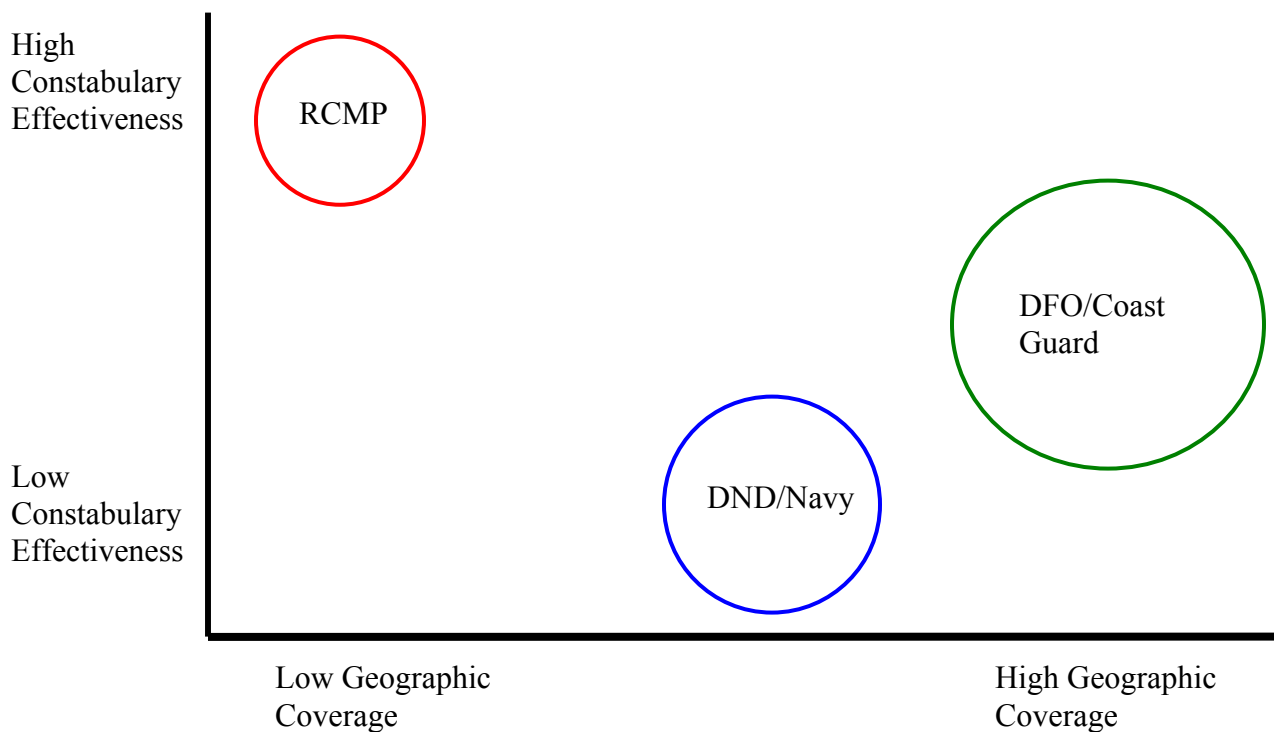


Analysis:

This Strategic Group Map looks at surveillance effectiveness versus geographical coverage. The RCMP with only five vessels in the inventory, and limited to inshore waters are evaluated as low overall in surveillance capability and coverage. DFO/Coast Guard fleet is large and spread out among many geographic maritime areas (Appendix 2). Their ability to cover the geographical area is very high, however, they lack sophisticated communications systems to input information into the RMP. The vessels may have a good presence but they are not very effective for gathering detailed contact information and passing this information to Athena or Trinity for evaluation and placement into the RMP. The Navy has good coverage on the coasts out to the 200 nautical mile exclusion zone. Routine operations and training, throughout Canadian coastlines, with CPFs, AORs, 280s, MCDVs, YAGs, and Fleet Diving vessels allows for extensive presence and

contributes to a medium to high geographic coverage rating. More importantly naval ships have sophisticated C4I systems. This allows them to pass detailed and constant information about vessels in their vicinity. Overall, the Navy has the right combination of vessels and systems to be more effective than the RCMP and DFO.

Strategic Group Map - Constabulary function versus geographic area
Figure 5



Analysis:

This Strategic Group Map looks at Constabulary effectiveness versus geographic coverage. Again the RCMP due to limited number of vessels, are low in geographic coverage but very high when performing policing/constabulary roles as sea. The RCMP is the only department to conduct drug interdiction/detain/divert or arrest vessels and personnel at sea. The low number of RCMP personnel and vessels is a limiting factor on how effective the government of Canada is at protecting Canadians interests in Canadian

waters. The large Coast Guard fleet allows DFO to conduct fisheries patrols and environmental protection duties and therefore contributes effectively towards constabulary functions. The only limiting factor is the lack of armed assistance provided by the Coast Guard vessels. The Navy provides significant presence in Canadian waters but has no constabulary responsibilities. When encountering any situation that falls under fisheries, environment, and Solicitor General Acts, the Navy is powerless to react.

This simple mapping strategy gives a representation of how the navy compares to Other Government Departments. It is obvious that the navy is only missing constabulary functions to become more effective in the maritime domain. Would the navy be successful in constabulary functions? Key Success Factors (KSF) suggest yes. KSFs are "the product attributes, competencies, competitive capabilities, and market achievements with the greatest impact on future competitive success in the marketplace".⁹⁸ Although the quote deals with a competitive business environment, the elements are germane and useful when evaluating government business strategies. "Correctly diagnosing an industry's KSFs raises a company's chances of crafting a sound strategy".⁹⁹ If the Navy's KSFs are evaluated, and they turn out positive, there is less risk and more to gain by conducting constabulary functions.

Evaluating the Key Success Factors for the navy requires some context. What is the over-arching strategy for the navy? The National Security Policy (NSP) provides the core national security interests, which are, protecting Canada and Canadians at home and abroad; ensuring Canada is not a base for threats to our allies; and contributing to

⁹⁸ Ibid...80.

⁹⁹ Ibid...84.

international security.¹⁰⁰ The first two security interests deal with homeland defence in Canada. Thus, it should be clear that military national strategy should reflect homeland defence and security issues. The navy requires Key Success Factors, which promote national security. The KSFs, which fit best, are skills and capability, technology, and utilization of fixed assets.¹⁰¹

Skills and Capability - foremost in this factor is a talented workforce. The personnel in the navy are well educated and trained. Canada spends a considerable amount training Officers and NCMs. For example, the average officer spends 6.6 years completing formal training within a span of 20 years. The capability of naval units is considered excellent first rate. Ships sail on 8 hours notice, can sprint to a situation within TTWs and bring to bear considerable expertise.

Technology - the CPF is complex and utilizes many areas of technology to become combat effective. Strength areas include Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR).

Utilization of fixed assets - CPFs, AORs, MCDV, 280s, and ORCA vessels are national assets. The Navy can significantly contribute to securing Canadian waters if vessels are used in more policing/constabulary roles. The national will to employ warships in domestic security and or constabulary roles will be the biggest challenge to overcome.

The Canadian Navy has capable vessels that can cover wide geographical areas quickly. The crews are well training and have the ability to use force if required. If the

¹⁰⁰ Department of National Defence. *2004 Securing an Open Society: Canada's National Security Policy*. (Canada: April,2005), vii.

¹⁰¹ "Crafting and Executing Strategy. The Quest for Competitive Advantage...81.

Navy embarked on a strategy using the above KSFs to conduct constabulary roles, they should be successful. To be certain the SWOT analysis is used uncover potential pitfalls and provide in depth analysis on the usefulness of the Navy proceeding with leading the MSOCs and embarking on more constabulary functions.

STRENGTHS

"Strength is something a company is good at doing or an attribute that enhances its competitiveness".¹⁰² The following Canadian naval strengths are illustrative of areas that could ease the Navy into its natural leadership role at the MSOCs and moving in the directions of a homeland constabulary navy.

Important expertise: Naval units conduct a wide range of activities. Training to a high threat environment, naval units can easily conduct constabulary roles due to high impact training. MIO/LIO operations during operation APOLLO has increased the navy's level of ability for conducting surveillance, boarding, and policing type tasks. The Command, Control, Communications, Computer, Intelligence, Reconnaissance abilities of the CPF is outstanding. Naval units are well trained in working communications issues with a variety of different navies and solving complex problems to ensure conductivity. Additionally, the reserve fleets are well suited to take additional roles in the domestic environment. Their level of integration, training, and professionalism would allow the reserve force, if appropriate extra training were provided, to meet the challenges of constabulary type roles.

Valuable physical assets: The CPF, MCDV and new ORCA class vessels are an excellent choice for domestic security roles. The CPF is designed for "Blue Water" operations around the world. When patrolling out to the 200 nautical mile exclusion zone,

¹⁰² Ibid...pg 89.

these are the vessel of choice. One of the largest and mostly ignored area of Canadian marine security is the amount of small vessels that go undetected between the US and Canada. As explained by a former Coast Guard Commissioner, "we are starting to focus more and more on the larger commercial vessels that are seen as the primary threat, but we need to focus equally on the smaller vessels because I see them as an even higher risk".¹⁰³ The MCDV and ORCA Class vessels are ideal choices to patrol actively the internal water, St. Lawrence Seaway and the Great Lakes.

Valuable human assets: As already mentioned the Department of National Defence spends considerable amount of monies to train service personnel. The cliché about "people are our most important asset" rings true. Without the skilled and dedicated sailors that serve onboard ships, combined with shore personnel in key staff and operational positions, the significant accomplishments achieved by the navy are not possible. Training in leadership, weapons (small arms), conflict management, fire fighting and damage control, and Law of Armed Conflict are skills directly transferable into constabulary roles inside waters under Canadian jurisdiction. Proven in the Arabian Gulf, Canadian sailors have conducted policing operations without difficulty. Seizure of large merchant traffic, detaining suspected terrorists, effectively dealing with control of evidence issues, and other constabulary type functions are well within the scope of naval personnel.

Valuable organizational assets: The C4ISR organization within the navy is significant. Dedicated officers and NCMs spend their entire career solving command and control issues. Consequently, naval ships and headquarters are fitted with advanced gear

¹⁰³ Canada's Coastlines: The longest Under-defended borders in the world Senate...chapter 2.

to coordinate activities at sea. Dedicated shore facilities and civilian personnel are available twenty-four hours a day to correct problems onboard ships.

Competitive capabilities: Competitive capabilities capitalize on the Key Success Factors. Fixed assets and technology owed by the navy allow quick reactions to any eventuality. Recent examples of inherent flexibility provided by naval forces were HMCS ST. JOHN'S participation in a drug vessel takedown on 4 July 2004. Embarkation of RCMP Emergency Response Team, practice for operation and execution were achieved due to the preparedness of ship, and professional ability of crew.

WEAKNESSES

The Canadian Navy has predominately focused on international commitments during the last three White Papers. The ability of the navy to adjust and commence constabulary functions will be hampered by reluctance to change and the belief that expeditionary operations are the primary function for the navy. "Internal weaknesses are shortcomings in a company's complement of resources and represent competitive liabilities".¹⁰⁴ Every organization has internal weakness. In the case of the Navy, budget shortfalls, lack of capital investment, and reluctance to engage fully in constabulary roles are areas requiring attention.

No clear strategic direction: Leadmark: The Navy's Strategy for 2020 is thin with respect to constabulary roles for the Navy. Sovereignty patrols, Aid of the Civil Power, and Assistance to Other Government Departments are the status quo for participation in constabulary roles. This approach is outdated and requires a more robust

¹⁰⁴ "Crafting and Executing Strategy. The Quest for Competitive Advantage...93.

rethinking of how the Navy contributes to national security. There is a distinct lack of interest in conducting constabulary roles within the Navy.

Sovereignty patrols or "show the flag" operations are lacking in enforcement roles. Proceeding on a passage in Canadian waters without any mandate to question, board, divert, and arrest vessels are wasting taxpayer dollars. Should Canadian naval vessels contribute to security via enhanced patrolling responsibilities, similar to U.S. Coast Guard concept of operations in internal waters? Given the huge maritime areas of responsibility, lack of offshore vessels, and appropriately trained personnel in policing duties, it becomes obvious that all OGDs need to re-adjust and actively promote a more robust constabulary role. As previously mentioned, the threat to Canada is real. Countering this threat should be the number one priority of all OGDs. In particular, when the navy is conducting domestic operations, they should be actively patrolling and boarding as required. It only takes one terrorist incident to change the makeup of a society. Proactive and engaged navy inside Canadian waters would optimistically prevent an incident from occurring.

Weak balance sheet: The recent Budget 2005 is potentially a landfall win for defence. DND "received the largest federal government spending commitment in decades, \$12.8 billion over five years".¹⁰⁵ However, the budget is phased over the next five years, and there is a possibility that the government could lose the next election causing slowdowns in any capital acquisition programs. With \$500 million this year and \$600 million next year, the amount falls short "of the \$1.5 billion various parliamentary committees and lobby groups say must be added to the base budget to halt the decline of

¹⁰⁵ Canada.com, "Military promised \$12.8 B Raise" http://www.canada.com/finance/rrsp/budget_2005/story.html?id=2c6721ed-310d-495f-9090-70244ce774dd;Inernet;accessed 29 March 2005.

the Forces".¹⁰⁶ Additionally, there are internal federal clawbacks that will significantly reduce the amount of money available to the forces. This means that the Navy must make do with what is presently available. Providing leadership within the MSOCs is not a costly endeavour and contributing more effectively towards constabulary functions can be factored into existing budgets.

OPPORTUNITIES

The first opportunity available for the Navy is providing leadership within the MSOCs. Once this is established then other opportunities can be explored to improve the constabulary functions of naval forces. In the business parlance, "market opportunities most relevant to a company are those that match up well with the company's financial and organizational resource capabilities, offer the best growth, and present the most potential for competitive advantage".¹⁰⁷ Domestic security and improving constabulary functions within the Navy are that market opportunity.

The following are opportunities for the Canadian navy. These options are low risk, meaning they do not require extra personnel, do not require large increases in budget, and directly improve the navy's position on the Strategic Map (Figure 5). Additionally, these opportunities also capitalize on the Key Success Factors mentioned above.

Educate the public: A recent 2003 Straits of Juan De Fuca, West Coast of Canada naval exercise was conducted to explore and train the navy in constabulary type functions. The media were very keen to become engaged in all aspects of the exercise and to learn how the navy can contribute to the security of Canada. On completion of the

¹⁰⁶ Ibid...canada.com.

¹⁰⁷ "Crafting and Executing Strategy. The Quest for Competitive Advantage...94.

exercise, MARPAC Public Affairs revealed that the nine-day exercise generated National coverage, both French and English. The power of harnessing this bow-wave of public support is crucial. More presence in small ports, engaging the public throughout sovereignty patrols, and allowing the media unfettered access to operations are all winning solutions for increased support. If the public are engaged, perhaps fighting for increased budgets will become easier. Director of Maritime Strategy, Captain (Navy) K. Williams stressed the importance of engaging the public. He considered this task to be the number one priority of command team's onboard naval ships.¹⁰⁸

Change laws to improve constabulary functions for Navy: Changing laws is required to allow HMC Ships to patrol actively Canadian waters. Proceeding alongside a vessel, inquiring about vessel actions/intentions, and gathering information is quite different from steaming by during a "Sovereignty Patrol". As radical as this sound, it is already an act in parliament. Bill C-55 established Controlled access military zones (CAZ). Powers within the CAZ are "the Canadian Forces may permit, control, restrict or prohibit access to a controlled access military zone".¹⁰⁹ Based on Bill C-55 it is realistic for the government to pass a bill dealing with naval constabulary roles. Improving naval ability on the water improves presence, and more importantly sends a message to criminals or terrorists that using Canadian waters for transport of illegal goods or attacks against the U.S. is foolhardy given the mature and robust nature of Canadian naval patrols.

¹⁰⁸ Captain (N) Williams, "Director Maritime Strategy" (lecture, Canadian Forces College, Toronto, ON, 15 February 2005).

¹⁰⁹ Ibid...Maritime Strategy Lecture.

Improve Peace Officer Status: With increased presence and sovereignty patrols, the navy will encounter situations that require peace officer status. As already shown above, the RCMP, do not have enough officers for active patrolling inside Canadian waters. The RCMP College basic course is 24 weeks. On completion, candidates reach peace officer status. Additionally, other departments contain peace officers status for enforcement of certain Acts. DFO and Environmental Canada are two of these departments. In DFO, Fisheries Officers complete a 20-week course (nine are spent at RCMP Academy in Regina). In the Coast Guard, personnel trained as Pollution Protection Officers have the ability to enforce Acts under Environment Canada. Given the relationship of other OGDs involved in peace officer status, there must be some synergies available to create a "peace officer status" for constabulary functions within the navy. Of note, Royal Navy Officers involved in Fisheries Protection receive specific formal training arrest and divert vessels, without Fisheries Protection Officers onboard.¹¹⁰

Start active patrol/presence operations: Notwithstanding the above opportunities, the Canadian Navy needs to improve its sovereignty patrols immediately. Using the Key Success Factors of, Skills and Capability, Technology and Utilization of fixed assets, the navy is well postured to improve Canada's security. Because the navy already possesses the KSFs, the transition towards immediate constabulary functions is easily achieved. Sea days need to be reviewed and emphasis placed on getting ships to sea to remote areas and along the U.S./Canada border.

Great Lakes Marine Detachment: Among the most overlooked areas for sovereignty patrols is the Great Lakes. The RCMP does not have vessels, while the Coast Guard has presence but no authority to do anything if a situation arises. Six MCDVs are

¹¹⁰ Personal interview LCdr Simon Staley, Royal Navy. Canadian Forces College, March 2005.

located on the East Coast. Two MCDVs located at Quebec City (NAVRESHQ) used for active patrolling of the St. Lawrence and Great Lakes would improve domestic security and prove to the U.S. that Canada is serious about border integrity. The naval reserve requires a demanding and worthwhile task besides MARS III/IV training. A reduction of MCDV training roles is achievable with the new ORCA Class vessel coming on-line. This opportunity will require reviewing the Rush-Bagot Treaty, which limits military/naval presence in the Great Lakes.

Establish OGD Director: DND spends considerable monies on training officers and NMCs. The navy has Anti-Submarine, Above-Water, Air-controllers, and Navigation specialties. The National Security Policy and the upcoming National Security review may place additional responsibilities on DND and in particular the Navy. An Other Government Department Director (OGDD) is one way to resolve the many acts and legislations involved in domestic security operations. Training for the OGDD would necessitate appropriate peace officer status in various departments, thus allowing the Commanding Officer to enforce constabulary roles. This approach would consolidate OGD information in one individual and avoid ad-hoc arrangements and relying on other OGDs to sail with the ship.

Pollution Protection Officer Status: The OGD Director may require considerable time to work out exactly what is required and setup of appropriate MOUs to achieve training. A Pollution Protection Officer status is believed to be achievable in the immediate timeframe. Coast Guard Officers and MARS Officers conduct comparable training in navigations and operations at sea. The Coast Guard is responsible for pollution

protection enforcement and trains their officers as required. Exploring this avenue for naval officers is considered wise and on the path to improving constabulary functions.

NCAGs Officer completes OGD training: The Naval Coordination and Guidance of Shipping Officer (reserve force) is in a state of flux. These individuals spend considerable amount of time working with OGDs. Perhaps moving these officers in an OGD direction would accomplish two aims. First, providing the NCAGS Officer a worthwhile classification and second allowing the NCAGS Officers to return to sea in a worthwhile manner. If the NCAG Officer were embarked on a Great Lakes patrol, their expertise would be invaluable during sovereignty/constabulary situations.

Conduct patrols with US Coast Guard: The department of homeland defence is actively patrolling the border between Canada and the United States. Additionally, the US Coast Guard actively patrols U.S. waters and Canadian vessels are hailed and boarded on a regular basis upon entering US waters. An active relationship with more patrols near US/Canadian borders would improve domestic security for both sides. The winner in this situation is Canada. Again, proving to the U.S. that Canada is serious about enforcement within Canadian waters is bound to send a positive signal to Washington D.C.

NEXUS System for the Navy: This system, if used appropriately could benefit the navy. As mentioned previously, the NEXUS system scans an individual's iris to determine identification. If involved in a situation requiring identifying an individual this system could immediately provide answers. (Providing they are in the database). During operations in the Gulf of Oman, forwarding names from suspect vessels to US database caused considerable delays. Additionally, this system seems to be more reliable than CIA/US Naval Intelligence named databases.

Fisheries roles: The navy has committed 200 days to fisheries protection. This role is obviously important for the navy and needs expanding. The UK model requires careful study to determine if the Canadian Navy should adopt it. Exploitation of Canadian fish stocks is an eventuality as world population continues to grow. Careful planning and preparation by the navy now to counter this threat is wise strategy. As mentioned above a 20 week course is manageable to establish a baseline of understanding within the navy.

THREATS

If the navy takes the leadership role within the MSOCs, and commences robust constabulary functions within Canadian waters, the following threats will need to be mitigated or removed.

No desire by Naval Leadership: Some senior naval leaders believe there is no place for naval units involved in domestic security or constabulary roles. If the navy takes, a leadership role in constabulary functions, there is always concern by senior officers that the government could easily expect the navy to undertake these roles without additional funding or increase in capability. This argument is valid against volunteering for additional duties. However, due to the nature of the threat and increased focus on marine border security, the avoidance of constabulary roles is unwise. As proven throughout this paper, the government's ability to conduct policing roles is restricted. The navy must be engaged to achieve satisfactory marine domestic security.

Continued restrictive laws: Certain aspects of increasing the navies constabulary role hinges on certain laws changing or the navy acquiring individuals trained to specific peace officer statuses. Already mentioned, the navy has no authority to conduct any

constabulary role inside Canadian waters. To be effective, the navy must possess peace officer status or equivalents.

Increased demands around the world: Prime Minister Martin is actively traveling the world to promote Canada. With active participation in world events, Canada is expected to carry a share of the burden. Involvement in Afghanistan and Operation APOLLO has placed Canada as a nation willing to participate in operations in failed states and with coalitions of the willing. General Hillier's new construct for the Canadian Forces places expeditionary operations at the forefront. Once the navy comes out of its "operational pause" after APOLLO, new and unique situations requiring naval units are foreseeable. Limited naval (CPF) participation in domestic operations is a distinct possibility if the government's desire is to engage globally. However, the MCDVs and ORCA Class vessels can still contribute to inshore constabulary functions.

CONCLUSION

The Canadian government's number one priority is protection of Canadian citizens. To achieve this mandate the government has issued the National Security Policy and the International Policy Statement. These two policy documents highlight the requirements for improved marine domestic security within waters under Canadian jurisdiction. The task of surveillance, increasing on water presence, and interdict and board shipping within Canadian waters is a massive undertaking.

The Canadian government cannot rely on one Other Government Department (OGD) to accomplish these formidable objectives. All marine OGDs must cooperate and become fully engaged in policing/constabulary functions. Within this OGD mix, there are significant problems with how each OGD performs their domestic marine duties. The

RCMP, which has all the constabulary powers, has limited vessels and no reach into the offshore waters. The Coast Guard fleet requires extensive modernization and has no ability to conduct armed patrols. The naval fleet appears to be the best prepared but is restricted by lack of constabulary authority to act within Canadian waters.

With the establishment of the Marine Security Operational Centres (MSOCs) the OGDs have an opportunity to improve the situation. Within these MSOCs, the navy should provide the leadership for all OGDs. After reviewing the surveillance programs of each OGD, it is obvious that the navy is the logical choice to manage and disseminate the Recognized Maritime Picture (RMP), additionally, the navy works extensively in command and control arrangements and is again the logical choice to lead this area.

The constabulary functions were also extensively reviewed and it is evident that all OGDs must contribute to ensure that Canadian waters are adequately protected. In this regard, the navy is viewed as not particularly effective. The navy can do much better. Conveyance operations for the RCMP and Department of Fisheries and Oceans are roles easily achieved by the navy. Robust constabulary functions using naval forces were also analyzed. The navy has many strengths and opportunities available, and within the context of constabulary roles, is more than prepared to conduct the full range of policing duties.

The Canadian Navy is ideally suited to take the leadership role within the MSOCs and use naval forces in a constabulary function within waters under Canadian jurisdiction. On all accounts, the thesis statement is valid. There is little question about the navy's ability to lead within the MSOCs. The ability for the navy to function within the constabulary realm is also achievable.

The Canadian navy could be a prominent contributor within Canada's Maritime Security. The status quo is unacceptable. The navy must become more active in constabulary functions and participate in the defence of Canadian waters. The 2005 Foreign Policy Statement provides the necessary guidance and instructs the military to refocus on domestic issues. The navy must therefore begin the transition and commence constabulary functions in earnest, negotiate with the other OGDs to take the leadership role within the MSOCs, and implement appropriate policy that enables warships to participate in the full range of policing/constabulary roles.

APPENDIX 1 - DEPARTMENT OF NATIONAL DEFENCE

CAPABILITIES OF THE CANADIAN NAVY¹¹¹

Asset	Capability
<p>12 Canadian Patrol Frigates (CPF)</p> <p>4 IRO Class Command and Control and Area Air Defence Destroyers</p>	<p>Sustainability - all weather capability for 8-10 days without replenishment.</p> <p>Combat Capability - CPF - frigates carry a formidable array of weapons and sensor systems including 8 Harpoon long-range, surface-to-surface missiles, 16 Sea Sparrow surface-to-air missiles, a Bofors 57mm rapid-fire gun, a 20mm Phalanx anti-missile close-in-weapons-system (CIWS), 8 x 12.7mm machine guns and 24 anti-submarine homing torpedoes. In addition, the ships can defend themselves using infrared suppression, Shield decoys, chaff, flares, a towed acoustic decoy, and radar and sonar jamming devices. The ship's torpedo-carrying helicopter significantly extends its range of operational effectiveness.¹¹²</p> <p>Combat Capability - IRO - new air-defence weapons were installed including Standard vertically launched missiles and a 76mm Super Rapid gun. The 20mm Phalanx close-</p>

¹¹¹ Bates, LCdr W.S. "The Canadian Navy: Defending the Homeland." Toronto: Canadian Forces College Command and Staff Course Master of Defence Studies Paper, 2002.

¹¹² National Defence, "Fleets" http://www.navy.forces.gc.ca/mspa_fleet/hfx_moreinfo_e.asp; Internet; accessed 27 March 2005.

	<p>in weapons system provides a final defence against sea-skimming missiles. The ships' anti-submarine warfare weapons -- two torpedo-carrying helicopters plus ship-launched torpedoes -- were retained, as were their sophisticated, Canadian-designed towed array and hull-mounted sonar. The 280 Class also has a variety of electronic jamming and decoy devices and an infrared suppression system fitted to their new single funnel.¹¹³</p> <p>Radius of action - CPF - 29+ knots. 7,100 nautical miles at 15 knots (diesel). 4,500 nautical miles at 15 knots (turbine)</p> <p>9,500 nautical miles.¹¹⁴</p> <p>Radius of action - IRO - 29+ knots. 4,500 nautical miles at 10 knots.¹¹⁵</p> <p>Maximum speed of 30 knots, these ships are able to intercept all but the fastest of surface vessels. An embarked helicopter can be used to extend the surveillance coverage, to ferry personnel and equipment and evacuate casualties. A rigid hull inflatable boat and two zodiacs provide shallow water access.</p>
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¹¹³ Ibid...navy fleets.

¹¹⁴ Ibid...navy fleets.

¹¹⁵ Ibid...navy fleets.

	<p>Advanced C4ISR - Ability to communicate via VHF, HF, UHF. Satellite communications for WWW, Chat, high-speed passage of information, pictures etc. Command and Control systems and training for SAR, exercises, OGD work etc.</p> <p>Surveillance - sensors including radar, electronic detection systems and sonar.</p> <p>Versatility - with a complement of over 200 sailors, these ships can provide expertise in all facets of marine operations. Including HAZMAT response, damage control and firefighting, SAR response, covert surveillance, boarding operations, presence, high-end combat, warning shots, and emergency evacuation.</p>
<p>12 Maritime Coastal Defence Vessels (MCDV)</p>	<p>Halifax and Esquimalt each have six vessels. Extensively used for Regular and Reserve Maritime Surface Officer Training. Summer reserve training and SAR Patrols. Can fulfill Ready Duty Ship (RDS) responsibilities with CPF in backup role. Can conduct boarding operations, presence, escort duties for NPV, OGD delivery, coastal surveillance and monitoring, community relations, border patrol, etc.</p> <p>Has detailed training in Route Survey Operations, Bottom Object Inspection via remote underwater vehicle,</p>

	submarine emergency response (East Coast Only). Can embark Port Inspection Diving Teams for mine clearance operations.
6 - 8 Orca Class Inshore Training Vessels	<p>The Naval Tenders Section in Esquimalt operates seven 75 feet, 75-ton vessels called YAGs. These vessels have been the mainstay for training Sea Cadets, Naval Reserve and Regular force Officers and non-commissioned members for 30 years. The vessels ability to visit small ports and routine transit of navigational passages makes them ideal for coastal surveillance/presence operations.</p> <p>Recently announced by the MND, a \$68 million project is ongoing to replace the YAG vessels. The new vessels called ORCA Class have significantly improved speed, range, crew accommodations, engines, hotel systems, radars, and SAR capabilities.¹¹⁶ Command of the vessels could be set at Minor War Vessel Command qualification level, which would allow CO MOG4 to use the vessels for more robust operations including support to OGD, sovereignty patrols, surveillance operations etc. More discussion in SWOT analysis section.</p>
2 Auxiliary Oiler Replenishment Vessels	Used primarily for fleet replenishment and have enormous potential for assisting with maritime emergencies along




¹¹⁶ Author's previous position was Combat Officer MOG4, responsible for new ORCA class vessels.







(AOR)	<p>the coasts due to:</p> <p>limited cargo carrying capacity.</p> <p>four bed hospital and operating room.</p> <p>extensive repair facilities.</p> <p>large areas for reception and handling.</p> <p>capacity to operate up to 3 helicopters.</p> <p>Boarding Teams.</p> <p>Command and Control Spaces for staff.</p> <p>Limited troop transport ashore.</p>
4 Upholder Submarines	<p>Upholders submarine transfer to Canada is ongoing.</p> <p>Recent tragedy could delay operations status.</p> <p>Excellent platform for covert coastal surveillance.</p> <p>Could perform variety of OGD operations, like fisheries, RCMP covert operations complete wit JTF2.</p>
4 Port Security Units	<p>Fully deployable anywhere in continental North America, these units can provide surveillance, contact analysis and reporting, interdiction of vessels, waterside security of vessels and port infrastructure, force protection of government assets, vessel movement control and limited diving operations. Additionally, they can support other military or other governmental operations to ensure port safety, law enforcement, explosive ordnance disposal, salvage and sage navigation</p>






2 Diving Units	Situating on each coast, the Fleet Diving Units offer deep and shallow water mine countermeasures, explosive ordnance disposal and battle damage repair. Divers are capable of operating bottom object investigation
2 Portable Communication Facilities	The navy operates a Transportable Tactical Communications Centre (TTCC) on each coast. Deployable and completely self-sufficient, this system of trailers and tents provides satellite, radio and land-line voice and data-link access WWW
Deployable Staff	Each coast has two staffs. One staff is in charge of large combatants and other is in charge of FDU, MCDVs, TTCC, Naval Tender Section (West Coast) and submarine support. Additionally, new dive teams are being stood up within these organizations to support submarines. The staffs have the ability to proceed to sea for Command and Control of their organizations. MOG staff is usually shore based and could easily surge for domestic or constabulary operations. More discussion in SWOT analysis.





APPENDIX - 2




DEPARTMENT OF FISHERIES AND OCEANS.

Asset	Capability
2 Heavy Gulf Icebreaker 	Built 1969 and 1983. Large ship ice escort in severe Gulf of St. Lawrence and Atlantic ice and weather conditions. Capable of extended season operations through areas of Arctic ice zone 6. Crew 46. Avail berths 53. (Terry Fox 24 and 10) Both vessels operated Dartmouth, Nova Scotia.
4 Medium Gulf/River Icebreaker 	Built 1978-1989. Large ship escort operations Gulf of St. Lawrence and St. Lawrence River as well as operations in Arctic area during summer season. Crew 38. Avail berths 26. Three vessels operated Quebec, Quebec and one St John, NFLD.
8 Light Icebreaker - Major Navaid Tender 	Medium and small ship escort in moderate ice conditions in Gulf of St. Lawrence and St. Lawrence River, with buoy handling and medium cargo capacity. Built between 1967 and 1987. Two modernized in 1995/1998. Home ports of St John's NFLD x 2, Dartmouth, NS x 2, Quebec, Quebec x 2, Victoria, BC x 1, Prescott, ON x 1. Crew generally 26, with 25 available bunks.
2 Medium Navaid Tender - Light Icebreaker	Medium and small ship escort in moderate ice conditions in southern waters including harbour breakout, with buoy handling and moderate cargo capacity. Built in 1985/1986. Home Port PEI and Parry Sound. Crew 22, with one vessel having 9 extra bunks.

	
<p>4 Ice Strengthened Medium Nav aids Tender</p> 	<p>Medium and small ship escort in restricted and shallow water including harbour breakout, with buoy handling and medium cargo capacity. Older vessels all built in 1960s. Home ports, Victoria-BC, St John-New Brunswick, Prescott-ON, Sorel, Quebec. Crew 24 with average 10 extra bunks.</p>
<p>3 Offshore Research & Survey</p> 	<p>Major research and hydrographic surveys in most offshore weather conditions with limited capability in ice infested waters. Two build in 1960s, one build 1985. Home port, 2 Dartmouth-NS, 1 Pat Bay, BC. Crew 20, with 20 extra bunks.</p>
<p>4 Offshore Fisheries Research</p> 	<p>Medium research capability in inshore protected waters. Built from 1978-1988. Crew 20, with avail bunks average 15. Home ports, St John's NFLD x 2, Dartmouth, NS and Pat Bay, BC.</p>
<p>1 Inshore Research & Survey</p> 	<p>Major research and hydrographic surveys in coastal and protected waters. Built in 1972. Crew 4. Home port Pat Bay, BC.</p>
<p>5 Coastal Research & Survey</p> 	<p>Major research and hydrographic surveys in coastal and protected waters. 3 built from 1967-1976. 2 built in 1990. Crew older vessels 12 with 8 extra bunks. Newer vessels crew 10, 5 extra bunks. Home ports, Burlington x 2, Pat Bay x 2, 1 x Dartmouth.</p>

<p>9 Small Navaid Tender</p> 	<p>Buoy handling and checking in restricted and shallow waters. Built mostly in 1980s. Average crew of 5 persons. Home ports; Selkirk Manitoba, Prescott Ontario, Parry Sound, Anherstbury Ontario, PEI, Sorel Quebec, St John New Brunswick, Victoria BC and Kenora Ontario.</p>
<p>4 Special River Navaid Tender</p> 	<p>Shallow draft, high endurance buoy vessel for Mackenzie River System. Built from 1963-1988. Crew of 10, average 8 extra bunks. Homeport Hay River, NWT.</p>
<p>3 Offshore Ice Strength Multi Patrol Vessel</p> 	<p>High endurance all weather, full patrol capability up to 400 nautical miles offshore. All built in 1980s. Crew average 18, with 20 extra bunks on NFLD vessels. Homeport 1 x Dartmouth NS, 2 x St John's NFLD.</p>
<p>1 Offshore Multi Task Patrol Vessel</p> 	<p>High endurance all weather, full patrol capability up to 400 nautical miles offshore. Built in 1977. Crew 19, with 23 extra bunks. Homeport St. John's NFLD.</p>
<p>7 Inshore Fisheries Research</p> 	<p>Medium research capability in inshore protected waters. Built between 1968 - 1991. Crew 5, some with 3 extra bunks. Homeports 2 x St. Andrews New Brunswick, Ste Flavie Quebec, Dartmouth Nova Scotia, Shippagan New Brunswick, St. John's NFLD, Burlington Ontario.</p>
<p>5 Intermediate</p>	<p>Medium endurance in moderate weather conditions, in coastal and</p>

<p>Multi Task (Patrol) Cutter</p> 	<p>protected waters. Built between 1968 and 1990. Crew average 10, with 8 extra bunks. Homeports, Prince Rupert BC, Pat Bay BC, Sept Iles Quebec, Gaspé Quebec, Victoria BC.</p>
<p>1 Small Multi Task Ice Strengthened Cutter</p> 	<p>Medium endurance in moderate weather conditions, in coastal and protected ice infested waters. Built 1986. Crew 7, 3 extra bunks. Homeport St. Anthony NFLD.</p>
<p>10 Small Multi Task Cutter</p> 	<p>Medium range with moderate speed, capable of operating in all weather conditions in semi sheltered areas - station mode. Built between 1972 and 1982. Average crew of 4 with average 4 extra bunks. Homeports, Coburg and Goderich Ontario, Pat Bay, Tahsis, Prince Rupert, Campbell River, Port Hardy BC, Tadoussac Quebec.</p>
<p>7 Multi Task Lifeboat</p> 	<p>Medium range with moderate speed, capable of operating in all weather conditions in semi sheltered areas - station mode. Built between 1969 and 1985. Crew of three. Homeports, Mulgrave NS, French Creek, Port Hardy BC, Souris PEI, Tobermory ON, Thunder Bay ON, Sydney NS.</p>
<p>10 Multi Task High Endurance Lifeboat</p>	<p>Long range with moderate to high speed, capable of operating in all weather conditions in partial offshore waters - station mode. Built between 1989 and 1997. Crew 4. Homeports, Bickerton East,</p>

	<p>Clarks Harbour, Sambro, Louisbourg, Westport NS. Cap aux Meule Quebec, Shippagan, St. John New Brunswick, Burgeo, Burin NFLD.</p>
<p>7 Multi Task Medium Endurance Lifeboat</p> 	<p>Medium range with moderate to high speed, capable of operating in all weather conditions in semi sheltered waters - station mode. Ongoing build started in 1986. Crew 4. Homeports, Port Weller, Meaford, Port Dover Ontario, Port Hardy BC. Remained not assigned to ports.</p>
<p>12 Inshore Multi Task Patrol Vessel</p> 	<p>Medium range with moderate speed, capable of operating in moderate weather conditions in sheltered waters - station mode. Built between 1975 and 2001. Crew 3. Homeports Neguac, Caraquet, Val Comeau, St. John New Brunswick. Summerside, Souris PEI, Havre Boucher, Westhead, Yarmouth, Sydney NS. Victoria BC.</p>

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