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EXERCISE/EXERCICE  
**Master of Defence Studies (MDS) Research Paper**

**Port Security in the Canadian Maritime Strategy Context**

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## ABSTRACT

Alfred Thayer Mahan, the naval philosopher, called the world's oceans the "great common," available for use by all with the access, desire and the ability to master them. It was the great common that engendered oceanic trade, which was the foundation of globalization, as we know it today. Technology has increased the size and speed of ships and the manner in which cargo is carried and handled but despite these efficiency improvements, little about oceanic trade has changed. For many Canadians, the importance of oceanic trade and the maritime environment is taken for granted and lost in the modern world of high technology-driven globalization.

It was not until the post 9/11 new reality was established that a widespread understanding of the vulnerability of the maritime environment to modern security threats took hold. Disruption of the oceanic supply network can have a devastating impact on the global economy because of the interdependence of states and regions in the modern globalized world. Ports are the nodes in the supply networks where activity levels are highest making them the most vulnerable to disruption. Ports are the weak link upon which the global economy is balanced.

The body of knowledge associated with port security and maritime security, in general, has grown substantially in recent years. With this growth has come a deeper understanding of the whole maritime environment and its use in a sustainable manner. This awareness has brought an ecosystem-based management approach into vogue. Now, it is not uncommon to discuss the coordination of the efficient, safe, and secure movement of cargo and passengers with other ocean and coastal uses and activities and

with efforts to protect the maritime environment. This foundation forms the basis of maritime strategy.

Port security cannot be considered in isolation. As key components of maritime supply networks, the importance of ports goes beyond national borders. Ports support the interdependency of states and are significant regional and global assets. Moreover, as part of the maritime environment, ports and the activity that they support impact the ability of states to use the oceans for sustainable wealth generation. Port security must necessarily be considered in the context of an overarching maritime strategy.

Port security is vital to Canada and its regional and global interests. Despite having most of the elements in place and the wherewithal to establish robust port security arrangements, Canada has not done so. This oversight is because Canada has failed to establish a coherent maritime strategy that reflects Canada's domestic, regional, and international interests. Port security should be a significant component of Canadian maritime security policy, which in turn would be one of the primary components of Canadian maritime strategy.

Canada's response to the modern threat environment has been ad hoc and slow. The cooperative interdepartmental and interagency approach to Canadian maritime security lacks clear leadership, the wherewithal to develop much needed maritime security policy, and the physical assets necessary to maintain a presence and enforce security measures. Canada needs to develop a maritime strategy that will incorporate Canada's continental obligations and international interests and educate Canadians on the importance of its maritime environment.

## INTRODUCTION

When the world experienced the events of 11 September 2001, the dark side of globalization became unquestionably clear to those in many western democratic societies. The ubiquitous influence of the United States and the western world, spread by globalization, was rejected with a devastating asymmetric attack. Ironically, the terrorists perpetrated their attack using the very tools and technology that globalization had provided. The attack was directed at those in the west who embraced globalization and at the heart of globalization itself – world trade and economics.

Reaction to the terrorist attack was swift and establishment of a US defensive fortress unprecedented. The “homeland” fortress has since evolved in the US and, to a lesser extent in neighbouring states, including Canada, in step with the ongoing study of asymmetric threats in a globalized world. Perhaps the most revealing aspect of this study was recognition of the vulnerability of the marine transportation system. Terrorists demonstrated on 9/11 that attacks using transportation systems could yield high casualties and significant social and economic disruption. The marine transportation system is a very complex and intricate system that is susceptible to attack and difficult to defend. It underpins world trade and provides access to some of the world’s most populous centres via the world’s oceans.

The world’s oceans are global highways and are the backbone of world trade. The oceans are the “great common”, available to all with access and with the means to master them. Access is key; a nation with access to an ocean possesses a gateway to the wider world. Throughout history, states with such gateways or states with great ports have become great and powerful. Ports not only provide access to the oceans and enable

their use, they also provide the point of entry inland. As the link between the global highways and the land on which world affairs are conducted, ports are the most important component of the global maritime environment and are critical to all maritime activities. As hubs of great activity, ports and their associated facilities pose many security concerns given their size, accessibility and attractiveness to disruptive criminal or terrorist activities. Moreover, using the maritime transportation system as a conduit for smuggling weapons of mass destruction or other dangerous materials is possible and has significant unrealized potential. Cargo and cruise ships are desirable terrorist targets, given the potential for loss of life, ecological destruction and disruption of world trade and economic activity. As industrial hubs, ports are close to population centres, presenting additional opportunities for indirect attacks against urban areas. The security of ports is, therefore, vital to all nations that have interests in or use the maritime environment.

The coordination of a logical security response for the potential threats to ports is a daunting proposition because ports are so inextricably linked to the functioning of the globalized world and entail the involvement of so many different stakeholders. Some stakeholders include operating authorities, governments and law enforcement agencies from the state in which the seaport is located. Other stakeholders include; shipping and infrastructure owners and operators, supporting industry, inland transportation systems operators, regional and international agencies and bodies and all other users of the maritime environment that are linked to ports as part of the global logistic network. Even within the groups of stakeholders, complexities are multiplied. Vessel owners and operators from a given state may, for example, fly the flag (of convenience) of another



state in their vessels. They often crew their vessels with nationals from several other states, carry the cargo of multinational corporations based in other states and insure their vessels and cargo through corporations in yet another state. All, of course, have interests in the security of ports.

Ports are the most important component of the global maritime environment as generators of wealth in a capitalist global economy. Accordingly, ports must first and foremost be competitive. Ports like the majority of the maritime transportation sector, tend to be very cost sensitive. This sensitivity can lead to potential conflict between security concerns and commercial interests. Security infrastructure costs money and directly affects profits. More importantly, if a port's security requirements are seen to impede the efficient flow of goods, it will put the port at a competitive disadvantage. Therefore, in the absence of an irrefutable threat to business, efforts to improve port security may tend not to be a priority to port operators. Most ports are not owned and operated by governments. This fact makes it difficult for governments to force ports to increase security measures. In order to facilitate increased security measures in ports, governments will in most cases have to provide subsidization. In Canada, the government committed in 2003 and 2004 almost \$300 million over five years to maritime security initiatives including a Marine Security Contribution Program to assist Canada's ports and terminal operators with the cost of strengthening their security systems. In an interesting move, the International Maritime Organization introduced its recent International Ship and Port Facility Security Code in a manner such that non-compliance by ports will effectively yield economic sanctions. Canada's major ports have all complied with the

new standards, however the ability to enforce these standards and appropriately react to a security threat or event has not been proven.

## LITERATURE SURVEY

The importance of the maritime environment to world trade and economics is generally well understood. This importance may have been taken for granted, however, prior to the understanding that the maritime environment is an attractive terrorist target. The recognition of the vulnerability of the maritime environment has yielded increased discussion, academic writing, government reports and specific studies aimed at understanding the maritime environment's vulnerability and the risks associated with the current system. Some of the literature also proposes broad solutions that could potentially lead to the development of security responses.

Much of the written work considering security has dealt with specific segments of the maritime environment. In 2003, RAND Europe published a paper by Maarten van de Voort and Kevin O'Brien entitled "Seacurity – Improving the Security of the Global Sea-Container Shipping System."<sup>1</sup> The security of sea-containers was among the initial areas of concern in the new threat era because of the vast number in use. Approximately 90 percent of all cargo moves in sea-containers, with some 250 million shipped annually.<sup>2</sup> However, only about 2 percent of container contents are typically verified, with verification efforts focussed on customs valuation rather than security. While the RAND report is a necessary and fundamental piece of the overall maritime security study, it is

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<sup>1</sup> Maarten Van de Voort and Kevin A. O'Brien with Adnan Rahman and Lorenzo Valeri. *Seacurity: Improving the Security of the Global Sea-Container Shipping System*. Workshop Report MR-1695-JRC. Santa Monica: RAND Europe, 2003.

<sup>2</sup> *Ibid.*, 1.

similar to many papers in that it takes a somewhat narrow focus on a single vulnerability in one segment of the maritime environment.

Gal Luft and Anne Korin examine the threat to another segment of the maritime environment in “Terrorism Goes to Sea.”<sup>3</sup> This paper focuses on threats to ships at sea. It defines both piracy and terrorism threats and makes the deduction that piracy and terrorism are increasingly intertwined. Of note, the paper draws an interesting parallel between the Barbary wars launched by the US some 200 years ago and today. In the Barbary wars, the young American republic projected force overseas to fight piracy. This approach is similar to that taken by the US today. The primary tenet in the US-led global war on terror is projection of force overseas, away from the homeland, to eradicate terrorism at its origin.

In “Lost at Sea: Port Security and Canada”, Tiffany Farion examines the security environment in Canadian ports both before and after the 9/11 terrorist attacks. She argues that port security in Canada has been neglected relative to the US. As the economies of both Canada and the US rely heavily on trade, the security situation in Canadian ports is now a concern to both governments. She identifies the main challenges for Canadian port security to be a lack of resources and the need for better surveillance. More importantly, she deduces that effort and resources are lacking because Canada has not fully acknowledged the threat and therefore the government has demonstrated only a “loose commitment” to port security.<sup>4</sup>

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<sup>3</sup> Gal Luft and Anne Korin, “Terrorism Goes to Sea,” *Foreign Affairs*, Vol 83, no.6, December 2004, 61-71.

<sup>4</sup> Tiffany Farion, “Lost at Sea: Port Security and Canada,” CDAI – CDFAI 7<sup>th</sup> Annual Graduate Student Symposium, Royal Military College of Canada, 29 – 30 October 2004, 13.

Captain (N) Peter Avis, a Canadian naval officer involved in development of Canada's maritime domestic security policies has taken a broader approach in examining the maritime security issue. In "Surveillance and Canadian Maritime Domestic Security", Avis briefly explains why Canada is dependent on maritime trade, putting the security argument in context. He explains that due to limited resources, prioritization of security activity is required, particularly in the area of surveillance, which he describes as "rather disappointing" because no national level surveillance plan exists.<sup>5</sup> The paper describes the changes that have been made in government to improve strategic coordination and development of a marine security plan with "domain awareness" as its foundation. This plan is described as a series of concentric circles expanding outwards from Canada. The circles are used to demonstrate an ever-increasing area of importance within the maritime environment. The first small circle bounds a domestic port. The next bounds the 12-mile territorial limit then a larger circle bounds coastal and internal waters. The next covers international waters and the final circle covers foreign ports.<sup>6</sup> This plan implies that a layered approach to domain awareness is necessary. Each circle has specific security activities and responsibility associated with it. As one gets further away from Canada, security activities become increasingly information-based, while closer to Canada the requirements are more physical and reactionary. Most importantly, this paper espouses the requirement to collaborate and cooperate in building domain awareness both within Canada and with those outside of Canada that share maritime

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<sup>5</sup> Captain(N) Peter Avis. "Surveillance and Canadian Maritime Domestic Security." From [http://www.navy.forces.gc.ca/mspa\\_news\\_issues\\_e.asp?category=14&title=14](http://www.navy.forces.gc.ca/mspa_news_issues_e.asp?category=14&title=14); Internet; accessed 5 March 2005.

<sup>6</sup> Ibid., 5.

interests. This paper addresses the security requirement of the broad maritime environment, but it is largely focussed on surveillance and does not address the issue of response in detail.

In a subsequent paper entitled “Maritime Security and the Culture of Prevention,” Avis argues that information superiority is necessary to neutralize the terrorist threat. He further asserts that force is necessary once information superiority has located the enemy. Both the projection of force to take the fight to the enemy and force to react domestically in Canada are necessary, similar to the US approach in the global war on terror. The government has moved slowly since 9/11 according to Avis and in a typical Canadian ad hoc manner has chosen to address the security issue with “changes to the law, meager additions to resources, and significant changes to government machinery.”<sup>7</sup> He contrasts this approach to significant policy changes in the US and Australia in the same period of time. According to Avis, “Canada needs to make a break from its past and adapt to the new battlespace” where pro-activity and the ability to “disrupt the timeline” and “prevent the [terrorist] event” is necessary. An abundance of ideas exist, but no overarching plan due to insufficient government attention and priority. “Maritime Security and the Culture of Prevention” seems to be a good follow-on to Avis’ other paper “Surveillance and Canadian Maritime Domestic Security”. They both share the domain awareness and information superiority theme and stress that information is key to defeating terrorist activity before it is Canadian. Then, the ability to respond both overseas and domestically is necessary once the enemy is fixed. There is a sense of frustration, however, that Canada still lacks a Maritime Security Policy and a National Surveillance

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<sup>7</sup> Captain(N) Peter Avis, “Maritime Security and the Culture of Prevention.” NSPIA Occasional Paper No.42. (Ottawa: Carleton University, Ottawa April 2004).

Plan due to insufficient attention from government and lack of allocated resources.

Without policy and plans, Avis assesses that Canada will never achieve an appropriate level of national security.

In a quite comprehensive study of security in the maritime environment for Canada, Joel Sokolsky examines the impact that change in US Homeland Security policy is having on Canada. In “Guarding the Continental Coasts: United States Maritime Homeland Security and Canada,” Sokolsky considers the complexities and uncertainties that accompany America’s new emphasis on maritime homeland security and how Canada has responded.<sup>8</sup> He considers collaboration both within Canada and between departments and agencies of the Canadian and US governments. He concludes that bi-national collaboration has been quite good despite the sometimes-strained relations between the two governments at the political level. By examining Canadian maritime security in the continental/US context, Sokolsky takes the study global, which is uncommon in literature for a study of Canadian maritime security, but increasingly necessary. He explains that the “two navies” of the US, the USN and the Coast Guard, provide an effective means of both projecting power abroad while defending homeland maritime approaches. Although Canada can never afford “two navies”, Sokolsky argues that Canada must follow the US example. It must maintain its current ability to project force abroad, but it must also develop its ability to defend maritime approaches in cooperation with the US. In order to do this, Canada must understand its interests abroad, act where necessary but otherwise turn its focus inward towards the security of its primary interests on the North American continent.

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<sup>8</sup> Joel J. Sokolsky, “Guarding the Continental Coasts: United States Maritime Homeland Security and Canada,” *IRPP Policy Matters* Vol 6, no. 1 (March 2005).

In an article entitled “Securing the Homeland”, Prime Minister Martin states that Canada is “a country that trades with the world, that is plugged into global supply networks, and that has long-standing commitments to improving international security and the well-being of people far from our borders.”<sup>9</sup> The article conveys the fundamental tension in Canadian Foreign policy, whether the relationship with the US should be the top priority and a driver of other policies or whether Canadian foreign policy should be truly global and independent of US policies. The answer is, of course, both. Canada has always been both “internationalist” and “continentalist”. Martin states, however, that “[t]he security of Canada is indivisible from the security of the United States.”<sup>10</sup> In general, the article implies that Canada should maintain its internationalist approach where specific Canadian interests exist but that North America must be a priority for Canada.

Securing individual segments of the maritime environment, while not simple, can be rather straightforward if sufficient resources are available. The majority of writing on security of the maritime environment has been about the security of individual segments. The papers considered thus far, examined sea-container security, shipping security, and port security in isolation. Certainly these issues must be studied to define appropriate security responses to the known threat. On a higher level, more work is arguably necessary in addressing the comprehensive and efficient security of the overall maritime environment. Addressing security segment by segment would certainly not be efficient in the context of the overall maritime environment. There have been fewer papers

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<sup>9</sup> Paul Martin, “Securing the Homeland.” Global Agenda Magazine, 2005, <http://www.globalagendamagazine.com/2005/paulmartin.asp> ; Internet accessed 22 March 2005.

<sup>10</sup> Ibid., 2.

written examining the broader issue of how security should be a component of maritime strategy. The maritime environment and its importance to wealth generation and sovereignty is fundamental to a maritime strategy. If the benefits of the maritime environment were broadly understood, the cost to secure those benefits would be accepted. This general understanding is also true of the Canada-US relationship. If Canadians broadly understood the economic importance of this relationship, the cost and policy alignment to secure the relationship would likely be accepted. The importance of the Canada-US economic relationship requires that any Canadian maritime security strategy adequately addresses Canada's most important relationship and makes the continentalist approach first priority.

A maritime strategy must define all activities associated with the maritime environment and rationalize the complexity and interaction of these activities. The papers describing Canadian maritime domestic security and the culture of prevention certainly push the argument in the maritime strategy direction and espouse the requirement for both Canadian "Maritime Security Policy" and a "National Surveillance Plan," both of which would be nested within a maritime strategy. By understanding the maritime environment beyond Canada's shores, in the North American and global context, with an emphasis on the importance of the Canada-US relationship, the true requirements for Canadian maritime security can be assessed. The Sokolsky paper and the Martin article take the issue to an appropriate level in order to begin to make this assessment. What is still missing, however, for a true maritime strategy, is incorporation of all the other uses and benefits of the maritime environment and their impact on both



regional and international relations and security as well as a true understanding by Canadians that Canada is a maritime nation.

Ports are part of the very large and complex maritime environment. The security of ports cannot, therefore, be adequately considered in isolation. Port security must be considered in the context of a state's overall maritime strategy. Today, states have begun to recognize the importance of a broad maritime strategy that focuses on the inherent value of the whole of the maritime environment. Globalization has established interconnectedness and state interdependence, particularly for those states that use the maritime environment. Accordingly, states are recognizing the need to look well beyond their own maritime jurisdictions in defining maritime strategy. A responsible state's maritime strategy must address its own specific needs, but it must also consider the greater global good. Therefore, a maritime strategy should address state issues, regional issues, relevant bilateral and multilateral issues as well as international issues. By defining the national benefits accrued from the use of the maritime environment, a maritime strategy clearly establishes the requirement for protection and security.

Does Canada have a coherent Maritime Strategy? If so, it would be reflected in the security measures taken to protect its ports, the most important segment of the maritime environment. Canada has the necessary elements of a maritime strategy in place and certainly has the ability to bring these elements together to form a coherent strategy. That it has not done so is reflected in a false sense of security at its ports. While Canada played a significant role in development of the International Ship and Port Facility Security (ISPS) code and actually implemented it in 2004, not enough has been done in the areas of enforcement and presence. The ISPS code is a risk management tool

designed to establish the minimum conditions necessary for the security of ships and port facilities. In light of the more aggressive US Maritime Transportation Security Act (MTSA), the ISPS Code can only be a starting point in Canada.

This paper examines Canadian efforts to enhance the security of its ports. It takes a comprehensive approach by considering the global maritime environment as a whole. In establishing the relevance of Canadian ports in this larger context, it argues that Canadian authorities have not done enough to secure Canada's ports. Canada is not only obliged to secure its ports for its own national security interests but also in support of its global partners. In the globalized world of interdependent states, the maritime environment is the fundamental enabler of world trade and economics. Globalization hinges on the security of the maritime environment and its ports. Canada's response to the modern threat environment has been ad hoc and slow. Canada's cooperative interdepartmental and interagency approach to maritime security lacks clear leadership, the wherewithal to develop much needed maritime security policy, and the physical assets necessary to maintain a presence and enforce security measures. In contrast to port security, Canada's airport security is effective because of clear leadership, policy and clear responsibility for enforcement. Canada's unique geographic relationship and economic interdependence with the US obliges Canada to place a high priority on continental maritime security measures. Canada needs to develop a maritime strategy that will incorporate Canada's continental obligations and international interests and educate Canadians on the importance of the maritime environment. In doing so, the necessity to secure the maritime environment, including Canadian ports will be clear to Canadians.

## CHAPTER 1 – THE GLOBAL MARITIME ENVIRONMENT

Kofi Annan stated in his Millennium Declaration: “Globalization has been made possible by the progressive dismantling of barriers to trade and capital mobility, together with fundamental technological advances and steadily declining costs of transportation, communication and computing.”<sup>11</sup> The Secretary General’s anticipation for the new millennium was clear. He expected that the United Nations’ millennium objectives for a better world would be realized, in part, through the benefits of globalization.

It was very soon after, however, that the terrorist attacks of 9/11 revealed that the very benefits of globalization could be used against those societies that embraced them. Terrorists with origins in South Asia moved to these open societies. They lived and trained in Western Europe and North America. Their work was feasible because of the technology, tools and societies that had evolved because of globalization. The terrorists used inexpensive “global communications, efficient air transportation, borderless financial transactions, and the rights and freedom of movement afforded by democratic governance (even to non-citizens) to kill thousands of people and strike at the symbolic hearts of American and global commerce and defense.”<sup>12</sup> The benefits of globalization that Kofi Annan had hoped to use to begin to change the world, did just that. Unfortunately, the change was not for the better.

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<sup>11</sup>Kofi A. Annan, *We the Peoples, The Role of the United Nations in the 21<sup>st</sup> Century*, United Nations Secretary General Millennium Declaration (New York: United Nations, 2000) <http://www.un.org/millennium/sg/report/full.htm>, accessed 17 March 2005.

<sup>12</sup> Sam J. Tangredi, “Introduction,” in *Globalization and Maritime Power*, ed. Sam J. Tangredi, (Washington, DC: Institute for National Security Studies, National Defence University, 2002) online [http://www.ndu.edu/inss/books/Books\\_2002/Globalization\\_and\\_Maritime\\_Power\\_Dec\\_02/01e\\_intro.htm](http://www.ndu.edu/inss/books/Books_2002/Globalization_and_Maritime_Power_Dec_02/01e_intro.htm), accessed 17 March 2005.

## GLOBALIZATION

Globalization has changed the world. In addition to previously unimagined benefits to our societies, globalization brings profound changes and new requirements for global and national security environments. In addition to terrorism, globalization facilitates other negative issues that must be guarded against. These include environmental degradation, depletion of natural resources, disease transmission, human trafficking and drug smuggling and organized crime.

The catalyst for globalization is economic development and growth. The new global economy is clearly set apart from any previous archetype by its interdependency and the inter-connectivity between citizens of the world who would have previously considered themselves completely unconnected. The positive benefit of a shrinking world, where technology inverts the conventional space-time relationship is widespread economic development, growth and prosperity. Ellen Frost describes globalization as a significant “expansion of cross-border networks and flows.”<sup>13</sup> It is not a new phenomenon, particularly in the maritime environment where global trade has existed for hundreds of years. Alfred Thayer Mahan, the great American naval philosopher often referred to the sea as the "great common" of mankind.<sup>14</sup> This statement implies that the oceans are open and available for the use of all with the access, desire and means to use them.

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<sup>13</sup> Ellen L. Frost, “Globalization and National Security: A Strategic Agenda,” in *The Global Century: Globalization and National Security*, ed. Richard Kugler and Ellen L. Frost (Washington, DC: National Defense University Press, 2000), 37.

<sup>14</sup> From remarks by Secretary of the Navy John H. Dalton and Chief of Naval Operations Adm. Jay L. Johnson “Effective Seapower for Global Security” at the International Seapower Symposium, Newport, R.I., Nov. 4, 1997. <http://www.defenselink.mil/speeches/1997/s19971104-dalton.html>, accessed 17 Mar 2005.

The maritime environment and specifically marine trade is the basis for and origin of globalization. The oceans “account for 90 percent of world trade (when measured by weight and volume).”<sup>15</sup> Oceanic shipping is the most economical form of transportation and has largely supported global commerce, as we know it today. The significant advances in global trade have resulted from developments in shipping technology. The increasing size and speed of ships and the use of containers for high value post-manufacture goods, as well as the ability to handle containers efficiently both in ships and ashore, has reduced transportation time and costs significantly. Today, air transportation, and most importantly data and voice communications are most readily associated with globalization. Oceanic trade remains, however, a fundamental component of globalization. All worldwide activity resulting from the movement of people and communications eventually translates into the movement of goods. This movement is largely done by sea. Raw materials are moved to processing or manufacturing centres and then finished goods are moved to markets. States with developed economies will, therefore, gain most benefit from globalization.

Globalized states have greater reliance on oceanic trade and Sea Lines of Communication (SLOC). Sir Julian Corbett, the esteemed British naval philosopher, espoused that “communications” was of utmost importance to states and their national strategy. Corbett argued that the fundamental issue of strategy could be reduced to “passage and communication”.<sup>16</sup> The essence of national strategies has changed little over the past century, wealth generation remains the fundamental tenet. In the era of

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<sup>15</sup> Tangredi, “Introduction,” in *Globalization and Maritime Power*.

<sup>16</sup> Barry M. Gough, “Maritime Strategy: The Legacies of Mahan and Corbett as Philosophers of Sea Power,” *RUSI Journal* 133, no. 4 (Winter 1988), 59.

which Corbett wrote, this process was accomplished via imperialism. Protecting the SLOC militarily both enabled imperialism and ensured subsequent benefits. Today, wealth generation is accomplished through world trade. Oil producing countries, for example, must export their oil to generate wealth. Although applied in a slightly differing context today, Corbett's argument remains valid. SLOC are vital to the generation of wealth in a globalized world. The importance of SLOC continues to grow as oceanic trade grows.

Oceanic trade is expected to grow 3 – 4 percent annually.<sup>17</sup> With this growth, comes increased maritime traffic throughout the world and the increased importance of ports. Major ports are often referred to as hubs or nodes in the marine transportation system. Increased marine traffic, the increased use of certain ports and the corresponding density of shipping transiting worldwide chokepoints could negatively impact the overall marine transportation system. Safety of navigation and environmental protection are of immediate concern. With increasing organized crime, piracy and terrorist threats, security has now become the principal concern of states that rely on oceanic trade to support their economies. Remote regions that were once of little significance prior to globalization can now be of strategic importance to states thousands of miles away. The United States, which is arguably the single most responsible nation for globalization, recognizes the necessity to protect global trade and SLOC as a vital national interest and as the responsible superpower maintains naval power to do so on behalf of other states

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<sup>17</sup> US Department of Transport, February 2000 Internet: [http://www.bts.gov/publications/maritime\\_trade\\_and\\_transportation/2002/html/table\\_01\\_01.html](http://www.bts.gov/publications/maritime_trade_and_transportation/2002/html/table_01_01.html), accessed 15 March 2005.

that rely on SLOC. This component of US strategy is significant and influences its power projection requirement and fleet structure.<sup>18</sup>

Homeland security is the other significant component of US strategy. It has only recently gained increased attention:

[t]he US maritime borders received little attention prior to 9/11. There was: relatively little interest in increasing port and coastal security beyond what an under funded Coast Guard, along with the Border Patrol, Customs Service, and the Immigration and Naturalization Service were already doing in the effort to inspect a portion of incoming maritime traffic—thereby, in theory, deterring potential threats.<sup>19</sup>

With the exception of US Coast Guard law enforcement against criminal activities and illegal immigration, ports, harbours and coastlines in the US were largely undefended. They were not ignored, but given the low likelihood of an attack on the North American continent, the risk associated with not defending coastal areas was deemed low. The maritime environment was not generally given a high priority from a national security perspective. This lack of attention was due, in part to the deterrence provided by the US military against conventional attack, in part to a lack of understanding of the potential for asymmetric attack and in part to economics. Open borders and an open society, which are consistent with globalization, greatly improve international trade and yield economic advantage. This same viewpoint is shared in Canada and throughout most of the developed world.

Beyond economics, globalization brings new requirements and international standards. The International Maritime Organization (IMO) is a special agency of the

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<sup>18</sup> Mr. Daniel Coulter, Presentation to CSC 31 Navy Term, March 2005.

<sup>19</sup> Tangredi, "Introduction," in *Globalization and Maritime Power*.

United Nations. Amongst IMO top priorities are standards for marine environmental protection, safety of life at sea and most recently security of shipping and ports. Through IMO, the UN recognizes the interdependence of states and particularly those that are connected by oceans. Many states depend on the world's oceans, making the law of the sea and environmental protection transnational issues. Prime Minister Martin recently addressed this issue while speaking on "The Future of Global Interdependence":

...leads me to my third example of the kinds of dilemmas posed by modern interdependence – our stewardship of the global commons, of the resources that are the common heritage of all humankind. Civilized countries no longer allow the unregulated pillage of their own natural resources. Why then, do we allow the pillage of international resources? One appalling example is over-fishing on the high seas. We were once guilty of it in Canada, but we have taken very tough measures to stop it. We are pleased that the European Union recently ratified the UN's Convention on straddling stocks. But there are still countries – some poor, but especially some very rich ones – that are not doing nearly enough. In those cases, the politics of responsibility again seems to stop at national borders, and that is no longer acceptable in an interdependent world.<sup>20</sup>

## **GLOBAL IMPORTANCE OF OCEANS**

All school-aged children learn that the world's oceans are interconnected, cover some 70 percent of the earth's surface and account for about 97 percent of the earth's water supply. Until the year 2000, there was four recognized oceans: the Pacific, Atlantic, Indian, and Arctic. In Spring 2000, the International Hydrographic Organization delimited a new fifth ocean, the Southern Ocean, surrounding Antarctica and extending to 60 degrees latitude.<sup>21</sup>

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<sup>20</sup> Prime Minister Paul Martin speaking to the World Economic Forum on "The Future of Global Interdependence", January 23, 2004, Davos, Switzerland, <http://pm.gc.ca> accessed 14 Mar 2005.

<sup>21</sup> International Hydrographic Organization (IHO), Internet: <http://www.iho.shom.fr>, accessed 15 March 2005.



From the world's oceans come clouds that bring life-sustaining water to the world's landmasses. The oceans are home to microscopic plants that generate much of the oxygen in the atmosphere. Energy from beneath the seabed provides fuel for global economies and sustains modern life. The oceans host great biological diversity with vast potential and remain a frontier for exploration. The importance of oceans, coasts, and inland waterways cannot be overstated; they are critical to the very existence and well being of humanity.

The world's oceans are a highly productive system that continuously recycles chemicals, nutrients and water through the hydrologic cycle. This cycle powers climate and weather and regulates global temperature. About two-thirds of the world's population lives within 60 kilometres of a coast, and almost half of the world's cities with more than one million people are sited in and around the tide-washed river mouths known as estuaries.<sup>22</sup> From a human point of view, oceans are also a major source of food and employment, and provide natural routes for communication, transportation and trade. Canadians do not generally understand the broader field of ocean activities, which delineate why the oceans are important beyond their physical importance to the world. An inter-agency Canadian study looked at Canada's interests in the Northwest Atlantic with a goal to develop, protect and sustain Canada's oceans interests in the region for the prosperity and wellbeing of Canadians.<sup>23</sup> The study is regional, entitled Canada's Oceans Strategies Project – The Atlantic (COSPA) but the concept and organizing principle for the study are believed to be universally applicable to any region, or indeed the whole of

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<sup>22</sup> UN Atlas of the Oceans, <http://www.oceansatlas.org/index.jsp>, accessed 20 Mar 2005.

<sup>23</sup> Francois N. Bailet, Fred W. Crickard, and Glen J. Herbert, *Integrated Maritime Enforcement: A Handbook* (Halifax: Dalhousie University, 1999), 5.

the world. What is most attractive about the study is the simplicity and structure of its organizing principle and the sensible grouping of ocean related activities to demonstrate their relevance. First and foremost, the COSPA Study boldly links oceans and sustainable wealth generation and implies the further linkage of wealth generation with a state's ability to exercise sovereignty. A linkage that is unclear to many continentally focussed Canadians. The study advocates that sustainable wealth generation from the oceans requires two conditions. The first is trade and industry, direct wealth generators. The second is order and security, which of course supports trade and industry and therefore comprise indirect wealth generation enablers. Figure 1 shows the COSPA hierarchical model for sustainable wealth generation. The model assumes that natural resource assets are present and a certain measure of infrastructure and governance is in place to support both the direct and indirect activities that sustain wealth generation. Ocean industries must be in place with the necessary capabilities in order to participate in maritime trade and industry. Relevant and useful oceans and coastal management plans that are based on domestic and international laws and regulations must support these. In turn, monitoring and information technologies, applicable to the scope of the ocean environment, are necessary to ensure compliance with laws and regulations. Finally, the robust ability to enforce order and security for non-compliance is paramount to the entire model's functioning.

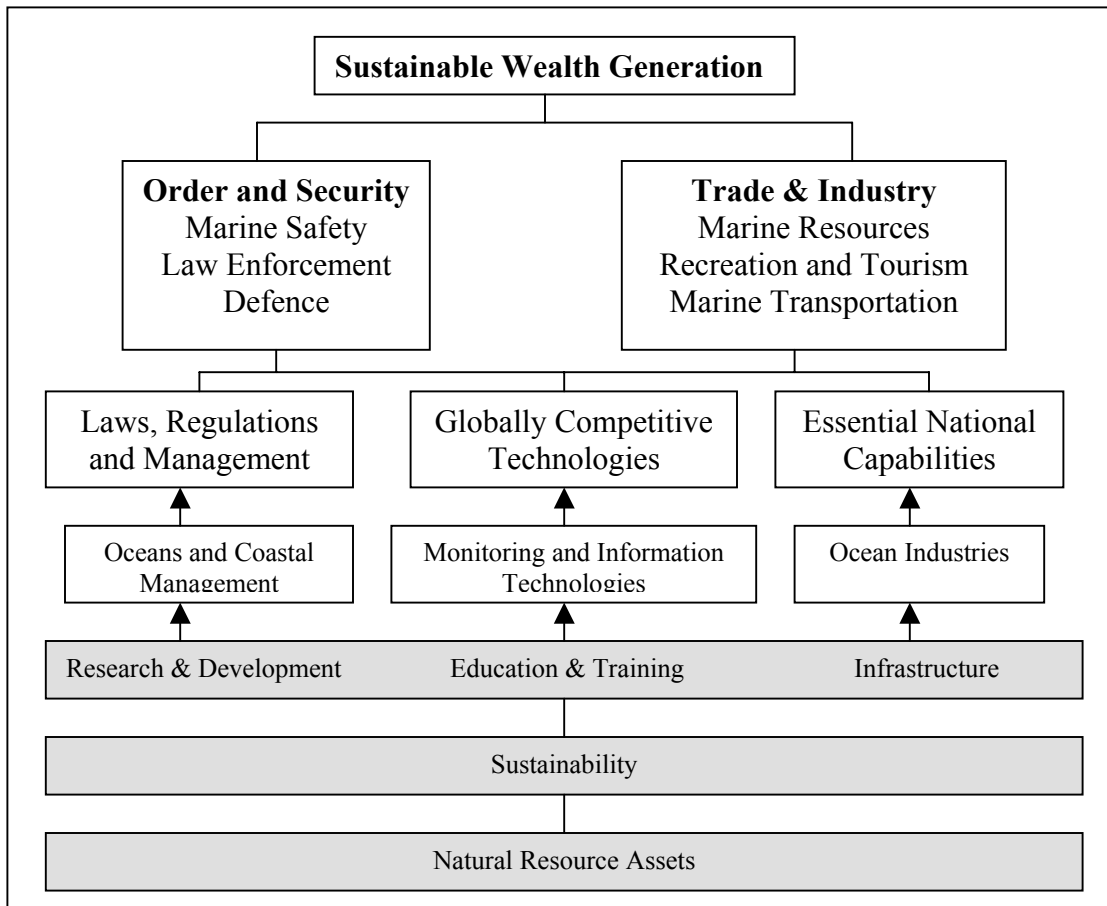


Figure 1: Organizing Principle for Sustainable Wealth Generation <sup>24</sup>

The United Nations Atlas of the Oceans lists the uses of the oceans by sector as detailed in Figure 2. For each sector, a number of associated activities are listed. The interesting thing about this table is its incoherence. All significant ocean use sectors are captured and comprehensive lists of activities are present, but the table has no structure. It starts with a resource sector “Fishing and Aquaculture”, which is followed by several industry sectors, then an interesting sector called “Human Settlements on the Coast,” followed by another resource sector and so on. The point is, the list describes ocean sectors and activities in precisely the manner in which most people would think of them –

<sup>24</sup> Francois N. Bailet, Fred W. Crickard and Glen J. Herbert, *Integrated Maritime Enforcement: A Handbook* (Halifax: Dalhousie University, 1999), 6.

without order and structure. Ocean uses are not, generally, presented to the layperson in a structured and coherent manner. This unstructured presentation is why, arguably, many Canadians do not recognize the importance of their oceans. Certainly, Canadians understand ocean segments, but in the absence of a structured model, they fail to comprehend the overall importance. A model identifies linkages between sectors and relationships between supporting and supported sectors and ties it all together to demonstrate why it matters.

<b>Sector</b>	<b>Activities</b>
Fisheries and aquaculture	resources, technology, production, processing, utilization, trade, governance
Recreation and Tourism	fishing, boating, swimming and other types of recreation and tourism, infrastructure development, management approaches
Transportation and Telecommunication	maritime transport and telecommunications (pipes, cables), navigation, port infrastructures, shipping rules, safety at sea, routes, congestion, accidents, governance
Human Settlements on the Coast	coastal urbanization and development, destruction of habitats and other physical alterations
Offshore Oil, Gas and Mining	extraction of oil and gas, gravel, sand, minerals
Energy	conversion of tidal, wave, thermal (OTEC), salinity and wind energy
Marine Biotechnology	pharmaceuticals and other marine products from biotechnology
Non-Consumptive Uses	clean water, endangered species, reserves, habitats, viewing of nature, aesthetic values and amenities
Ocean Dumping and Ship Wastes	voluntary dumping, disused oil platforms, ships discharges
Disposal of Waste from Land	sewage, non-point sources, CO2 sink

Figure 2: Uses of the Oceans <sup>25</sup>

The COSPA model identifies linkages and relationships and is therefore a suitable basis on which a maritime strategy can be developed. Rationalizing the ocean uses as

<sup>25</sup> UN Atlas of the Oceans, <http://www.oceansatlas.org/index.jsp>, accessed 20 Mar 2005.

presented by the UN in Figure 2 with the COSPA model in Figure 1 can validate the COSPA model. The ocean uses from each sector can then be matched to one of the nine COSPA fields of oceans activity: monitoring and information technologies; marine resources; marine recreation and tourism; marine transportation; marine safety; maritime law enforcement; maritime defence; ocean industries; and oceans and coastal management. By way of example, consider the “Oceans Dumping and Ship’s Waste” Sector and the corresponding “Voluntary Dumping” Use. How does it affect sustainable wealth generation? First of all, dumping is a result of economic activity. Dumping affects sustainability, which is necessary for the ongoing use of natural resource assets as reflected in the bottom two boxes of Figure 1. Moving up to the functional area box, it is clear that R&D is necessary to understand dumping effects and to establish limits, while education and training puts the issue into context for users and influences the direction in which industry moves. Moving up further, dumping is associated with ocean industries and ocean and coastal management. From here, the industrial activity that yields dumping would follow the direct wealth generator path to sustainable wealth generation. In parallel, however one must consider laws, regulations and management of this undesirable activity. Both domestic and international statutes are applicable, and of course, monitoring and enforcement are then necessary to ensure compliance.

This simple example demonstrates how ocean dumping fits within the overall context of the maritime environment. Validating the COSPA model clearly demonstrates that properly managed oceans provide sustainable wealth generation. Direct wealth generation is dependent on Trade and Industry, but indirect wealth generation enablers must also be present. As demonstrated in the example, only with the indirect wealth

generation enablers in the “Order and Security” box of the COSPA model can the oceans be properly managed and sustainable wealth generation achieved. This point is most important. A model such as COSPA makes the link between the benefits of ocean use and the costs. By not recognizing the costs and investing in appropriate “Order and Security” measures, a state puts the sustainable wealth generation benefit at risk. Complicating the matter further is the fact that “Trade and Industrial” activities are clearly driven by the private sector, whereas “Order and Security” activities are generally governmental responsibilities. This disconnect and a general lack of understanding of indirect wealth generation enablers is arguably the basis for the general lack of public understanding of the importance of the oceans and the lack of willingness to support the funding of “Order and Security” activities. Scant public understanding is why a coherent maritime strategy is important, and vital to a country like Canada. A maritime strategy can define the benefits gained from the oceans in a coherent manner. Then, by making the link between these benefits and their enablers, define the appropriate measures necessary to secure the benefits. By doing so, through the use of a logical, validated model like the COSPA, public and policymaker awareness of the necessity for “Order and Security” measures will be raised.

## **MARITIME SECURITY ENVIRONMENT**

The hijacking of the ACHILLE LAURO off Egypt in October 1985 was perhaps the beginning of a new threat era to the maritime environment. Pirate attacks tripled between 1994 and 2004 yielding the highest piracy levels in modern history.<sup>26</sup> In 2000,

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<sup>26</sup> Gal Luft and Anne Korin, “Terrorism Goes to Sea,” *Foreign Affairs*, Vol 83, no.6 (December 2004): 61.

direct attacks against naval and merchant shipping began. In October 2000, a small al Qaeda boat laden with explosives attacked the USS COLE in the Port of Aden, Yemen. In October 2002, the same method was used to attack the French tanker LIMBURG while entering the Dhaba in al Shaher City, Yemen. In February 2004, Abu Sayyaf claimed responsibility for sinking a large ferry in Manila Bay that killed more than 100.

There are three levels of piracy. At its basic level, in areas where significant commercial sea traffic exists and criminal activity is not well-controlled, ordinary coastal inhabitants and fishermen who think they can get away with it perpetrate acts of piracy or sea robbery (attacks in territorial waters).<sup>27</sup> They tend to loot smaller ships for valuables, or hold their crews for ransom. The next level of piracy involves criminal syndicates that are well organized and financed. These syndicates recruit capable seafarers such as retired naval officers. They operate “mother ships” that target smaller vessels with valuable and easily disposable cargoes. Once pirated, it is thought that the ships are sailed under false names to small ports from where the cargoes are sold and the pirates escape. Finally, there are more sophisticated pirates with ostensible ties to states or intra-state organizations that steal whole tankers and their cargoes to order.

Modern pirates are trained fighters with lethal and effective weapons and equipment. They are mobile and use speedboats that are equipped with satellite communications and positioning equipment. They are armed with automatic weapons, grenades and portable missile systems. Piracy tactics now involve the swarming of ships by many small boats and the use of weapons to force ships to heave-to.

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<sup>27</sup> In the context of the COSPA model, “Order and Security” is typically absent in areas where piracy is significant. This further demonstrates the importance of indirect enablers to wealth generation.

Piracy is often under reported by shipping companies in order to minimize the impact on insurance premiums. Statistics from the International Maritime Bureau, which tracks incidence of piracy, show that both the frequency and violence of pirate attacks, while concentrated in certain areas, is increasing. In 2003, 445 attacks were reported. Ships were hijacked in 19 cases and boarded in 311. 92 seafarers were killed or are missing and 359 were assaulted and taken hostage. Singapore's Deputy Prime Minister recently commented on the obvious training and military precision shown by pirates whom now account for losses of ships, cargo and increased insurance rates totaling some \$16 billion annually. It is thought that many pirates, particularly those operating in Southeast Asia, belong to international organized crime groups. Corrupt shore-side officials, workers and businessmen work with them to dispose of ships and cargoes. Poorly paid government and maritime security personnel are also believed to participate in piracy, from simple complicity through to full participation.<sup>28</sup> While the frequency of piracy is increasing, perhaps the most disturbing fact is that piracy and terrorism may be used together.

Pirates and terrorists have long operated in the same areas, principally the Arabian Sea, the South China Sea and the Barbary Coast of North Western Africa.<sup>29</sup> Terrorists may now recruit pirates, who are highly mobile and well equipped, to assist in maritime terrorist activity. More probable, modern pirates and terrorists may be one in the same, working towards both ideological objectives and economic gain to sustain their activities. By operating under the guise of piracy, which is generally not well-reported or

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<sup>28</sup> Luft and Korin, "Terrorism Goes to Sea," 62.

<sup>29</sup> Ibid., 62.



controlled, terrorists could reduce their visibility. A rich source of funding, piracy is certainly attractive to terrorists whose available capital has been severely cut through international efforts to freeze terrorist assets.

Terrorism in the maritime environment has largely been focussed on shipping. The attacks are generally against a state and are perpetrated against shipping owned by that state and represents significant national interest. There are, however, other very probable terrorist targets in the maritime environment. These targets, such as small ports and transfer points, can be deduced through the consideration of terrorist objectives and preferred operating techniques. Simply put, terrorists desire high levels of sustained media attention to raise awareness of their cause in order to influence opinions and ultimately policy in the terrorist's favour. The best way to achieve this attention is through the infliction of significant human casualties and/or disruption to societal norms like economic activity. Terrorists have demonstrated preferred operating techniques to maximize their success. These involve simple plans, simple weapons and continuous control of their weapons, all to minimize potential detection and maximize likelihood of success. When applying these considerations to the maritime environment and the uses of the ocean, the reasons behind the preponderance of simple boat attacks against targets such as shipping becomes obvious.

Boats laden with explosives used for suicide attacks on either commercial or naval ships have been a preferred terrorist tactic. It is simple to plan, the necessary equipment is readily available, and it is highly effective. Notably, boat attacks enable the terrorist to retain hands-on control of their weapons – a demonstrated preference. One respected analyst, Dan Coulter, believes that small boats, which are ubiquitous and

generally unregulated, are most likely to be used by terrorists to transport a chemical, biological, radiological or nuclear (CBRN) weapon.<sup>30</sup> This view challenges conventional thinking, which expects terrorists to use sea containers and container ships to transport such weapons.

With some 4,000 large foreign vessels visiting Canadian ports and 100 large Canadian registered vessels making international voyages, Canada's ports handle some 3.5 million containers annually. Canadian ports also handle a rapidly growing cruise ship tourist industry. Some 2 million passengers, most of who are US citizens arrive in Canada annually. In addition to this number, Canada's ferries carried an estimated 40 million passengers and 17 million vehicles in 2001. In addition to the use of sea containers to transport weapons of mass destruction, some believe that there is significant threat of a 9/11 maritime scenario involving a cruise ship or a ferry. In any case, a terrorist attack is most likely to be carried out in or near a port. Given the increasing regulation of both the container and passenger shipping industries, Coulter's small boat attacks seem most probable. The terrorist's likely use of small boats as weapons of choice confirms the requirement for on-water presence to counter this threat and enforce security measures. The requirement for on-water presence is consistent with the deduction made in the literature survey that physical and reactionary security measures are increasingly important the closer one gets to ports.

## **MARITIME LEGAL FRAMEWORK**

The United Nations Convention on the Law of the Sea (UNCLOS) sets out the legal framework for all activities on the oceans and seas. The Convention entered into

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<sup>30</sup> Mr. Daniel Coulter, Presentation to CSC 31 Navy Term, March 2005.

force in November 1994 and has achieved nearly universal acceptance. Canada ratified UNCLOS in November 2003 almost twenty years after agreeing to it in principle. Canada's ratification brings the number of parties bound to the agreement to 144.<sup>31</sup> Canada withheld ratification because of its failure to win jurisdiction over fishing on all of the Canadian continental shelf, which extends as far as 350 miles from Newfoundland, and includes the nose and tail of the Grand Banks. Once the European countries approved a straddling fish stocks treaty and began to demonstrate conservation measures, however, there was no longer a reason for Canada not to ratify UNCLOS. In remarks to the Oceans Management Research Network, Peter Harrison suggests that the ratification of UNCLOS may well be the catalyst for pulling together the many agencies and groups involved in ocean management in Canada.<sup>32</sup> If this proves true, it could be the starting point for a Canadian maritime strategy.

The system established by UNCLOS is the balance between the rights and obligations of coastal states in maritime zones under their sovereignty or jurisdiction (such as territorial sea, contiguous zone, exclusive economic zone, and continental shelf) and the rights and obligations of other states in those maritime zones. UNCLOS also specifies the rights and obligations of all states on the high seas or maritime areas beyond national jurisdiction. Among the important features of the Convention are the rules for navigation with provisions concerning navigational rights, passage of ships within territorial seas and through straits and archipelagic waters. It also covers conservation

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<sup>31</sup> Canada, Department of Foreign Affairs and International Trade, Internet: <http://www.dfaif-maeci.gc.ca/departement/focus/UNCLOS-en.asp> accessed 26 April 2005.

<sup>32</sup> Leslie Grattan, "Canada's Oceans: Research, Management and the Human Dimension," *Ocean Management Research Network, A Retrospective: The 2003 National Conference*, (Ottawa: OMRN National Secretariat, Fall 2004) 69. Internet: [http://www.omrn.ca/eng\\_retrospective2003.html#4](http://www.omrn.ca/eng_retrospective2003.html#4), accessed 27 April 2005.

and management of living marine resources, protection and preservation of the marine environment, a marine scientific research regime and, a procedure for settlement of disputes between states. The convention promotes stability and peaceful uses of the global maritime environment.

It was the events of 9/11 that put the new threat to security of the maritime environment into context. The twenty-second session of the UN's Assembly of the International Maritime Organization (IMO) in November 2001 unanimously agreed to development of new measures relating to the security of ships and port facilities. Whereas previous conventions had primarily focused on the safety of life and ships at sea, it was recognized that the limited security measures in place were insufficient to address modern threats, making shipping increasingly vulnerable. It was also recognized that in addition to ships, ports and marine facilities needed to be incorporated into security considerations. The 1974 International Convention for the Safety of Life at Sea (SOLAS 74) was the starting point.

A Diplomatic Conference on Maritime Security for SOLAS Contracting Governments was held in London in December 2002. On 12 December 2002, the Conference adopted amendments to SOLAS 74 in order to enhance the security of ships and port facilities. A new SOLAS Chapter XI-2 entitled "Special Measures to Enhance Maritime Security" was also completed. In addition and of most significance, a new International Ship and Port Facility Security (ISPS) code was approved. In 2003, the UN General Assembly adopted a resolution on "Oceans and the law of the sea", which

specifically welcomed the IMO initiatives to counter the threat to maritime security from terrorism and encouraged States to support fully this endeavour.<sup>33</sup>

The ISPS code came into effect on 1 July 2004. It covers all 148 flag and port states contracted to SOLAS as well as the world's merchant fleet of 55,000 ships and 20,000 ports around the world. The code is the international centrepiece for security in the maritime environment and is comprised of two parts. Part A contains new mandatory security-related requirements for governments, port authorities and shipping companies. Part B contains guidance for applying both the new ISPS requirements and other SOLAS 74 amendments. The code is meant to provide a standardized, consistent framework for evaluating risk, enabling governments to assess vulnerability for ships and port facilities based on a determined level of threat. In essence, the code treats the security of ships and port facilities as a basic risk management activity. To determine what security measures are appropriate, an assessment of the risks to both ships and port facilities must be made in each particular case.

The code requires that a dedicated "Port Facility Security Officer" be appointed for each qualifying port. In order to evaluate risk, the security officer prepares a comprehensive "Port Facility Security Assessment" and then a three-level threat-preparedness plan known as a "Port Facility Security Plan" which is necessary for ISPS compliance certification. The security plan must identify and evaluate important assets and infrastructures that are critical to the port facility as well as those areas or structures that, if damaged, could cause significant loss of life or damage to the port facility's

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<sup>33</sup> United Nations, 2003 General Assembly, Internet: <http://daccessdds.un.org/doc/UNDOC/GEN/N03/508/92/PDF/N0350892.pdf?OpenElement> , accessed 15 March 2005.

economy or environment. It must then identify the actual threats to those critical assets and infrastructure and prioritize security measures. Finally, the assessment must address vulnerability of the port facility by identifying its weaknesses in physical security, structural integrity, protection systems, procedural policies, communications systems, transportation infrastructure, utilities, and other likely target areas.

Similarly, all shipping companies must appoint a “Company Security Officer” who in turn must investigate all company ship classes or individual ships and appoint “Ship Security Officers” for each ship. Risk is similarly evaluated through the preparation of a “Ship Security Assessment” which in turn is the basis for individual “Ship Security Plans.” Additionally, amendment to SOLAS 74 Chapter V – Safety of Navigation requires the fitting of onboard Automatic Information Systems (AIS) in ships. This communications equipment provides regular updates of position and status. In the event of a security breach, the AIS would initiate and transmit a ship-to-shore security alert to the relevant security authorities. When all requirements are completed, a ship is qualified for the “International Ship Security Certificate” (ISSC).

The ISPS code does not establish or authorize any disciplinary measures for non-compliance. However, without an ISSC, port security authorities have the jurisdiction and responsibility to refuse a non-compliant ship entry or detain that ship in port until one is acquired. It is expected that basic economics will lead to compliance because non-compliance with the requirements of the code by either shipping companies or ports will effectively yield economic sanctions. Any delays due to non-compliance, however small, will have a significant impact on this highly cost sensitive transportation system. For example, if a compliant ship visits a non-compliant port, it may jeopardize its compliance

and be denied access to subsequent compliant ports along its route. Similarly, a compliant port should refuse access to, or detain non-compliant ships in order to maintain the port's ISPS compliance.

IMO statistics show that there was a rush towards certification immediately prior to the 1 July 2004 ISPS code implementation date.<sup>34</sup> This fact indicates that many operators may not be giving security requirements priority and reflects the fundamental conflict that exists between business and security. If the costs associated with a port's security requirements are seen to impact its competitiveness, security requirements will logically be avoided unless there is a threat to ongoing business. The potential for avoidance of valid security measures because of cost further demonstrates the necessity for a maritime strategy to draw the link between private sector port business, which is a direct wealth generator and port security, which is an indirect enabler. By drawing this link, it becomes clear that government support to maritime security requirements associated with the private sector is important to the overall ability of the state to generate wealth.

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<sup>34</sup> International Maritime Organization (IMO), Internet: <http://www.imo.org/home.asp> , accessed 15 March 2005.

## CHAPTER 2 – SECURING CANADA’S MARITIME GATEWAYS

### CANADIAN SECURITY ENVIRONMENT

In understanding the Canadian security environment, the concentration of Canadian power with the Prime Minister and the Country’s traditionally weak national strategic culture are significant starting points. According to Roy Rempel, “most observers agree that Canada has a weak strategic culture. The reality is that Canadian leaders have traditionally spent very little time thinking about strategic matters or about the threat of the use of force.”<sup>35</sup> Almost every Canadian government, in particular, the recent Chretien government, has not generally assigned great importance to foreign affairs or national defence. There was no cabinet committee for foreign policy and defence while the Chretien government was in power.<sup>36</sup> This lack of interest made it difficult for Canada to adapt quickly to the post 9/11 threat environment.

A revival of interest does seem to have occurred under Prime Minister Martin. His government introduced governmental change consistent with recommendations made by the Senate Committee on National Security and Defence (SCONSAD). It linked the Deputy Prime Minister’s position to National Security by assigning this Minister the newly created Public Safety and Emergency Preparedness Canada (PSEPC) portfolio. This new portfolio has a strategic role coordinating the activities of all Federal departments and agencies for national security issues. It also created a National Security Advisor (NSA) to the Prime Minister. The NSA is also Deputy Clerk of the Privy

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<sup>35</sup> Roy Rempel, “Maritime Strategies Down Under: Lessons for Canada?” A presentation to the Dalhousie University CFPS Maritime Conference, 18 – 20 June 2004.

<sup>36</sup> Ibid.



Council Office and coordinator of the national security and intelligence community, arguably an influential power broker. Finally, the current government re-created a Cabinet Committee on Security, Public Health and Emergencies.

It is within the Martin government's new strategic construct that the National Security Policy (NSP) was developed. To further develop domestic security initiatives and policy, lead government departments or agencies have been assigned specific roles commensurate with their departmental objectives. PSEPC and interdepartmental working groups coordinate activity. One of these groups is the Maritime Security Working Group.

The Interdepartmental Marine Security Working Group (IMSWG) was established to coordinate federal response to marine security, analyze marine systems for security gaps, and develop possible mitigation initiatives to address these gaps. Seventeen federal departments and agencies are members of the IMSWG with Transport Canada chairing the group. Former Transport Minister David Collenette described the IMSWG as "the centrepiece of Canada's marine security coordination."<sup>37</sup> This description was the Government of Canada's acknowledgement that maritime security had become a concern but also that it was of relatively low priority. The formation of a broad working group requires relatively little real effort and minimal incremental resources. In turn, the expectation for significant results is generally low from such groups. Hardly what one should expect of "the centrepiece of Canada's marine security coordination."

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<sup>37</sup> Standing Senate Committee on National Security and Defence, *Canada's Coastlines: The Longest Under-Defended Borders in the World* VOLUME 1, October 2003 37th Parliament - 2nd Session, Internet: <http://www.parl.gc.ca/37/2/parlbus/commbus/senate/com-e/defe-e/rep-e/rep17Vol1-e.htm> accessed 1 March 2005.

It is hard to imagine that the IMSWG with seventeen representatives from diverse government departments and agencies with varying mandates and limited resources will have the wherewithal to move issues quickly, achieve consensus, and influence policy makers. Several witnesses who testified before SCONSAD “expressed doubts as to how significant a role IMSWG is playing even now, and how likely it is to sustain any degree of momentum into the future.” Peter Haydon testified, “[i]t does not have the authority to direct that things happen ... there is no sense of urgency or importance to that committee.”<sup>38</sup> Dan Middlemiss likewise pointed out that “it [the IMSWG] is powerless either to create policy or direct reform... We need policy.”<sup>39</sup> The “problem with turning to committees composed of a variety of departments and agencies for direction on security is that each of these departments and agencies has its own legislation and its own mandate, and the security of Canadians is rarely the primary mandate.”<sup>40</sup> When the chairperson of the IMSWG was questioned about the group’s ability to ensure that its proposals were implemented, he replied, “each minister has that responsibility . . . if there are issues between ministers, they will be handled through the cabinet and cabinet committees.”<sup>41</sup> Clearly, this cumbersome and bureaucratic process is insufficient for issues associated with national maritime security. Members of SCONSAD believe that “on an issue as vital as maritime security, trying to direct from the circumference rather

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<sup>38</sup> Dr. Peter T. Haydon, is a Research Fellow at the Dalhousie Centre for Foreign Policy Studies. Standing Senate Committee on National Security and Defence, *Canada's Coastlines: The Longest Under-Defended Borders in the World* VOLUME 1, October 2003 37th Parliament - 2nd Session, Internet: <http://www.parl.gc.ca/37/2/parlbus/commbus/senate/com-e/defe-e/rep-e/rep17Vol1-e.htm> accessed 1 March 2005.

<sup>39</sup> Dr. Danford W. Middlemiss of the Department of Political Science from Dalhousie University. SCONSAD, *The Longest Under-Defended Borders in the World*.

<sup>40</sup> SCONSAD, *The Longest Under-Defended Border in the World*.

than the centre is a recipe for the continuation of the two most desperate problems at the operational level: under-funding and uncoordinated responses.”<sup>42</sup> Having considered the evidence presented, SCONSAD concluded that despite the extensive capability existent in the IMSWG, its design would prevent it from doing the work that needs to be done.

The IMSWG has little real chance of success unless its design is altered. Success requires a specific maritime security mandate assigned to a single department or agency with sufficient incremental resources to exercise the mandate. A clear mandate would delineate leadership responsibility, control relationships and the ability for other departments to support the lead department on a cost recovery basis. A clear mandate would also facilitate the formation of functional policymaking body necessary for the development of maritime security policy. Without maritime security policy, SCONSAD concluded that inadequate funding would persist, making IMSWG proposals largely unfeasible. The clear deduction is that Canada needs a lead agency with incremental funding for maritime security. If IMSWG continues to be the centrepiece of Canada’s marine security coordination, “neither the resources nor the systems required for cohesive responses to maritime security crises are likely to be put in place.”<sup>43</sup> When it is necessary to react to a security event, time remains paramount. Without effective policy, the response will be cumbersome and ad hoc at best. This approach is not acceptable for maritime security.

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<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

## MARITIME THREAT ENVIRONMENT

With oceans to the west, north and east and the world's only superpower a friendly neighbour to the south, Canada has traditionally enjoyed an enviable security position in the world. Globalization and the global transportation infrastructure have, however, largely eliminated these defensive barriers. Terrorists tend to use a proven modus operandi over and over. The use of the air transportation system for the 9/11 attacks demonstrates that the marine transportation system could also potentially be used as a terrorist weapon. Vessels, large and small, that visit ports in the heart of cities with population centres pose a significant risk. In the worst case, if a nuclear weapon was hidden in a ship's cargo or small boat, some casualty estimates are as high as 1 million people with infrastructure damage between \$50 and \$500 billion as well as significant indirect global losses.<sup>44</sup>

Canada, like the US, has significant infrastructure to support its powerful economy. When taken together, the North American infrastructure is immense relative to many parts of the world. This infrastructure offers many targets to the terrorist. According to Stephen Flynn, this infrastructure has been neglected in the US and one can deduce that the same is true in Canada:

[t]he transportation, energy, information, financial, chemical, food and logistical networks that underpin US economic power and the American way of life offer the United States' enemies a rich menu of irresistible targets and most of these remain virtually unprotected.<sup>45</sup>

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<sup>44</sup> ABT Associates, "The Economic Impact of Nuclear Terrorist Attacks on Freight Transport Systems in an Age of Seaport Vulnerability," executive summary, 30 April 2003, p.7, Internet: [http://www.abtassociates.com/reports/ES-Economic\\_Impact\\_of\\_Nuclear\\_Terrorist\\_Attacks.pdf](http://www.abtassociates.com/reports/ES-Economic_Impact_of_Nuclear_Terrorist_Attacks.pdf); accessed 15 April 2005.

<sup>45</sup> Stephen E. Flynn, "The Neglected Home Front," *Foreign Affairs* 83, no.5 (September/October, 2004). Internet, [www.foreignaffairs.org/20040901/faessay83504/stephen-e-flynn/the-neglected-home-front.html](http://www.foreignaffairs.org/20040901/faessay83504/stephen-e-flynn/the-neglected-home-front.html); accessed 15 April 2005.

In addition to the infrastructure, the threat of harm to citizens of the North American continent is also very real. In a 2005 article he wrote for the Global Agenda Magazine, Prime Minister Martin expressed his views about the threat environment:

There is a broad range of threats to Canada and the North American continent. These include: “weapons proliferation; international criminal syndicates; terrorists prepared to act with no concern for human lives, including their own; rogue states; and failing states and failed states where people who mean to harm us can operate with impunity.”<sup>46</sup>

In addition to the significant destruction and economic impact at the location of a North American attack, the global transportation system and the global supply network would feel the impact. Because North America represents about 25 percent of global maritime activity, a disruption could result in global losses of \$100 to \$200 billion, and indirect costs of \$300 billion to \$1.2 trillion.<sup>47</sup>

Other more subtle threats to the maritime environment exist. While not perceived to be of immediate significance, they need to be considered in the larger context of a maritime strategy. The UNCLOS created what some refer to as a “New Constitution for the Oceans.” The expanded territorial, contiguous and exclusive economic jurisdictional zones have essentially shrunk the size of the high seas. The enormous area of ocean that now falls under national jurisdiction has created boundary and resource disputes, some of which remain unresolved. Where living or non-living resources exist, these disputes can become contentious. Of particular interest for Canada is the Arctic where Canadian sovereignty remains an ongoing dispute.

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<sup>46</sup> Paul Martin, “Securing the Homeland.”

<sup>47</sup> ABT Associates, “The Economic Impact of Nuclear Terrorist Attacks on Freight Transport Systems in an Age of Seaport Vulnerability.”

The cruise ship industry shows how an apparently benign use of the ocean can yield significant environmental, criminal, and terrorist threats. Cruising has become one of the fastest-growing ocean industries, and one that is particularly enjoyed by Americans. Economics, technology and the ever-increasing demand for luxury, has started a “larger and more luxurious” ship trend. This unprecedented growth and corresponding demand for port facilities and shore-based recreation is putting increased environmental pressure on the oceans. Furthermore, the number of passengers and wealth associated with a fully laden cruise ship make them attractive to both criminals and terrorists alike.

## **MARITIME SECURITY INITIATIVES**

Several Canadian maritime security initiatives have been proposed by the IMSWG and have moved forward to a certain extent. In the absence of explicit maritime security policy, these issues reflect the most likely options to deal with the most likely threats, or perhaps the “no-brainers”. They involve six federal government departments and agencies and focus on safeguarding and protecting marine infrastructure, surveillance and emergency response capabilities:

- increasing surveillance and tracking of marine traffic, including “near real-time” identification and tracking of vessels in Canadian waters;
- screening of passengers and crew on board vessels;
- installing new detection equipment in ports to screen containers for radiation;
- new funding for the enhancement of the RCMP Emergency Response Teams and the establishment of permanent investigator positions at major ports;
- enhancing collaboration and coordination among government departments and agencies;
- making further improvements to port security by establishing restricted areas and requiring people working within these areas to undergo thorough background checks; and

- developing and implementing new security requirements in line with recent recommendations of the International Maritime Organization.<sup>48</sup>

With these initiatives came \$172.5 million of funding in 2003. Some good progress has been made and some of the technology being developed is impressive. The High Frequency Surface Wave Radar (HFSWR), for example is a superb method to increase surveillance and tracking in near real time. The HFSWR provides information on low-altitude and surface targets beyond the horizon, addressing a long-standing limitation. But as noted in the literature review, there has been an emphasis on surveillance, but a paucity of effort on basic enforcement. With regard to port security, the initiative was rather disappointing. The improvements focus on shore-side access control, with little done to address waterside security. Some believe that the waterside threat, particularly from small boats, which are ubiquitous and generally unregulated, is most significant and most likely to be used by terrorists to transport a CBRN weapon.

## **PORT SECURITY IN CANADA**

Port security is an essential part of the safe, secure, and competitive operation of the maritime transportation system. It promotes development of commerce and is an essential element in maritime trade competitiveness. Port security is clearly an indirect “Order and Security” enabler of sustainable wealth generation in terms of the COSPA model. Cooperation between industry and government is necessary to address the complex issue of port security. Because “Order and Security” is generally a governmental responsibility, resources should be allocated by national governments to assist in the funding of port security infrastructure requirements.

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<sup>48</sup> Transport Canada Backgrounder “Highlights of New Marine Security Initiatives,” Internet: <http://www.tc.gc.ca/mediaroom/releases/nat/2003/03-gc001.htm> accessed 1 March 2005.

The objective of port security is to establish an environment in which efficient trade can be conducted with minimum risk of illegal disruptive activity such as narcotics smuggling, international terrorism, illegal immigration, and domestic crime. A logical approach would emphasize detection, prevention and deterrence. To achieve this, port security operations should be proactive rather than reactive. This requirement involves coordination between all port stakeholders with a particular emphasis on intelligence coordination and law enforcement. The goal is to assess threats and then to respond as early as possible and prevent the disruptive act. Port security must necessarily consider both shore-side and waterside threats. On both sides, access control to the port, its installations, vessels, cargo and passengers is of primary concern. This control is necessary to prevent the introduction of weapons to the port that can be used to attack passengers, ships, the port infrastructure itself - as a component of the marine transportation system, or the surrounding population centre and its infrastructure. In addition, and becoming increasingly important, measures must be taken to prevent attacks on the port's business and trade information systems.<sup>49</sup> Ideally, detection and deterrence of potential disruptive activity should occur as far away from the port as possible to maximize the possibility of prevention. In order to achieve this, there is a requirement for information-based security activities as far away from Canada as possible. An example of this is the US Sea Container Initiative in which Canada may participate. This initiative involves the deployment of custom's officers to overseas ports in order to screen and inspect high-risk cargo and containers before they are loaded on vessels destined for North America. If such early detection and deterrence is

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<sup>49</sup> Mr. Daniel Coulter, Presentation to CSC 31 Navy Term, March 2005.



unsuccessful, then more physical and reactionary security requirements are necessary near or within the port. An example of this is the ability to respond to threats by deploying on-water patrols within ports and their approaches and the ability to intercept and board high-risk vessels for inspection prior to entering port.

Other port security initiatives involve the physical screening of people and cargo and improvements to shore-side physical security and implementation of the ISPS Code. Canada Customs and Revenue Agency has improved the screening of passengers and crew on board vessels and installed new detection equipment to screen containers for radiation. Port Authorities and Marine Facility Operators have made improvements to port security by establishing restricted areas and requiring people working within these areas to undergo thorough background checks. Finally, Transport Canada coordinated the implementation of the ISPS Code.

As one of the contracting governments to SOLAS 74, Canada participated in the development of the ISPS Code. In fact, according to Canada's NSP, "Canada played a leading role at the International Maritime Organization" in its development.<sup>50</sup> Under the ISPS code, ports across Canada are required by law to enhance and upgrade their physical and operational security. To offset the costs of improving national security, the Federal government committed, in May 2004, \$115 million over three years to the Marine Security Contribution Program to assist Canada's ports and terminal operators with the cost of strengthening their security systems and programs.<sup>51</sup> Typical security

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<sup>50</sup> Privy Council Office, *Securing an Open Society: Canada's National Security Policy* (Ottawa: National Library of Canada, 2004), 37.

<sup>51</sup> Transport Canada, Marine Security Contribution Program, Internet: [http://www.tc.ca/vigilance/sep/marine\\_security/contribution/menu.htm](http://www.tc.ca/vigilance/sep/marine_security/contribution/menu.htm) , accessed 15 March 2005.

improvements in Canadian ports have been focussed on access control, situational awareness and verification:

- Access Control - increased fencing and gates, lighting, and intrusion detection systems, automated gate and vehicle access control system for port roadways to ensure that only authorized vehicles and individuals access port property, video recording systems to monitor ports, 24 hours a day and 7 days a week, from modernized control centres
- Security Operations – land-side and waterside security patrols, modernized security control centres, arrival notification requirement of 96 hours for all international vessels, increased cruise terminal security with enhanced police presence, passenger and baggage screening, terminal access control, surveillance and monitoring
- Cargo screening - gamma ray container screening machines that allow containers of interest to be examined without slowing the movement of goods

While physical security improvements are important, collaboration and coordination of security efforts amongst port stakeholders and those involved with national “Order and Security” is key to improving port security.

There are typically four levels of security in a port that need to be integrated into the port’s overall security requirements. These consist of federal, municipal and provincial governments and law enforcement agencies. In addition to these public sector components, the port authority and marine facility operators are responsible for the security of port property, personnel and infrastructure. It is here that the ISPS Code requires development of a three-level threat-preparedness Port Facility Security Plan in order to achieve compliance certification. The security plan identifies and evaluates important assets and infrastructures and the actual threats to them. A vulnerability assessment identifying weaknesses in physical security, structural integrity, protection systems, procedural policies, communications systems, transportation infrastructure, utilities, and other likely target areas is then developed.

In 1998, the Canadian government commercialized ports under the Canada Marine Act. All ports now operate on a commercial basis as Canada Port Authorities (CPA). A CPA is financially self-sufficient and derives its revenues from port operations in accordance with the Act. Under this business model, port security is a cost. It makes business sense for the CPA to minimize this cost. The tendency will be for a CPA to implement only those port security requirements absolutely necessary to meet legislative requirements. The Association of Canadian Port Authorities (ACPA) is a not-for-profit association that represents all CPAs. Notably, the ACPA has taken a lead role in policy issues including port security. The ACPA argues that security enforcement should largely be a governmental responsibility, which is consistent with the COSPA model. Canada implemented the ISPS code to address port security. Implementation was completed in the required time and Canadian ships and ports are now compliant yielding a sense of security. Herein lies the fundamental problem with Canadian port security. The ISPS code does not delineate enforcement requirements and effective enforcement measures are not in place. A framed compliance certificate does little to enforce security measures. In the absence of an enforcement regime, only a false sense of security can exist.

There are five key government departments and agencies that work with the ACPA and CPAs in support of port security. Transport Canada is responsible for ensuring ISPS code compliance in Canada and monitoring the entrance of foreign vessels to Canadian waters. Transport Canada also enforces ISPS compliance standards for security on-board ships and at marine facilities and integrates the roles of domestic and international intelligence and enforcement agencies. Canada Border Services Agency is

the first point of contact in preventing illegal goods and unauthorized persons from entering Canada. Canadian Coast Guard ensures the safety and security of the port through a variety of marine navigation services including monitoring vessel traffic. Department of National Defence performs coastal surveillance and is responsible for Maritime Security Operations Centres (MSOC) on the Pacific and Atlantic coasts. The MSOC are interdepartmental and interagency “data fusion centres” that build a near real time Recognized Maritime Picture (RMP) which is the key component in maritime domain awareness. The MSOC are also linked to the US Coast Guard. Citizenship and Immigration Canada assists with border protection by monitoring the arrival and status of all immigrants and refugees entering Canada. Local police forces and the Royal Canadian Mounted Police (RCMP) are responsible for coordinating police responses to criminal activity both shore-side and waterside, although few have adequate vessels or personnel for waterside enforcement.

Canada has some 370 ports with Halifax, Montreal and Vancouver being the largest and handling the majority of cargo. Canadian ports handle 3.5 million sea containers and 2 million cruise ship passengers annually. In 1997, the federal Ports Canada Police Force was disbanded to save money. On the water, the Ports Police had enforced the Criminal Code and the Canada Shipping Act. On disbanding of the Ports Police, basic port security functions or 60 to 70 percent of port police work became the responsibility of ports. Municipal police forces or the RCMP maintained responsibility for other standard shore-side police services at the ports and where capability existed for waterside police services. The RCMP is now responsible for policing most of the major ports and for defending Canada’s coastline. Of the \$172.5 million allocated to maritime

security in 2003, the RCMP was allocated \$11.5 million for port security. This money was to be used for criminal record checks on employees at the ports, Armed Ship Boarding Training and extra RCMP officers at the three major ports.<sup>52</sup> Although the RCMP assessed the requirement for additional officers to be 24, funding only permitted eight more officers.<sup>53</sup>

Is Canada doing enough to secure its ports, the most important component of the maritime environment and marine transportation system? Because Canada does not have a coherent maritime strategy, it has taken a shotgun approach to maritime security. Most maritime security resources have been devoted to domain awareness. Domain awareness is widely recognized as the necessary foundation of maritime security. Domain awareness directly supports information superiority, which is arguably the most effective way to prevent terrorist or criminal activity. By understanding what the terrorist or criminal intends to do, he can be prevented from doing so. However, once information superiority is achieved and a potential terrorist or criminal attack discovered a response is necessary. An overseas response conducted by expeditionary forces or foreign law enforcement agencies is preferred but the ability to respond domestically is also necessary.

The RCMP is the agency charged with domestic security and response to illegal activity, including terrorism in Canadian ports. The RCMP, however, is both underfunded and undermanned to secure effectively Canadian ports, never mind Canadian

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<sup>52</sup> Transport Canada Backgrounder “Highlights of New Marine Security Initiatives,” Internet: <http://www.tc.gc.ca/mediaroom/releases/nat/2003/03-gc001.htm> accessed 1 March 2005.

<sup>53</sup> Tiffany Farion, “Lost at Sea: Port Security and Canada,” CDAI – CDFAI 7<sup>th</sup> Annual Graduate Student Symposium, Royal Military College of Canada, 29 – 30 October 2004, 7.

coasts. The Canadian Navy and Canadian Coast Guard can and are assisting the RCMP with the security of Canadian ports and coastline, but they too are under-funded and have conflicting priorities. According to SCONSAD, no agency is appropriately funded for maritime security activities in Canada.<sup>54</sup> The first requirement for port security in Canada, therefore, is appropriate funding. Should a collaborative arrangement continue, with more than one agency participating in port security, then the second requirement is establishment of clear leadership responsibilities and command and control relationships. A Canadian Maritime Security Policy, subordinate to the National Security Policy would be a component of a Canadian Maritime Strategy and would be the document in which such collaborative arrangements, responsibilities and relationships should be clearly enunciated.

It is useful to compare airport security in Canada with port security. Airport authorities operate airports in Canada, much like port authorities operate ports. If a model like COSPA was applied, it would likely indicate that government must contribute to the “Order and Security” enablers that allow airports to contribute to wealth generation. This is true in Canada where the government plays an active role in airport security. Arguably, the government puts more effort into airport security than port security because of the basic functions of each of the supporting transportation systems. In general terms, the air transportation system moves people while the marine transportation system moves cargo. People are clearly more important than cargo and flying introduces higher risk to human lives. This combination logically makes airport

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<sup>54</sup> SCONSAD “Longest undefended border.”

security a higher priority than port security in Canada. Because it is a higher priority, it is more mature and more effective than port security.

The Canadian government established in April 2002 the Canadian Air Transport Security Authority (CATSA), a Crown corporation, to enforce aviation security measures. It reports to Parliament through the Minister of Transport. In addition to CATSA, the government introduced user fees whereby passengers are incrementally charged for security services. These fees also facilitate the introduction of armed undercover police officers and state-of-the-art screening and detection systems.

While airport security is arguably less complex than port security. The most important differences are that there is a clear mandate and leadership for airport security resident with one Minister and one department in Canada and an effective body, responsible to Parliament (CATSA), is funded and charged with airport security enforcement.

### **CHAPTER 3 – CANADA’S MARITIME OBLIGATION**

States have increasingly begun to leverage the benefits of globalization through the formation of regional economic unions and agreements. Regions like Europe and North America have been breaking down internal barriers and increasing state interdependence. The unrestricted movement of people and goods across borders, common currency and free trade are examples of regional efforts to gain economic advantage and power through the use of unions and agreements. Globalization takes on a whole new significance as regional bodies gain economic power and influence trade. The formation of regional economic unions and trading agreements means that relationships amongst states within such regions can increase to the point where states become interdependent to unprecedented levels. In North America, for example, Prime Minister Martin has repeatedly said that Canadian and US interests in economics, the environment, and security are inseparable.<sup>55</sup> In the security context, this assertion means that regional security arrangements become essential. Sovereignty always dictates that a state establishes its domestic security requirements first. State interests and values, and increasingly regional economic interests dictate whether state security requirements should be expanded and linked to form regional security frameworks.

#### **CONTINENTAL SECURITY FOR NORTH AMERICA**

North America represents a good example of how regional sovereign states have moved towards interdependence. The catalyst was undoubtedly the North American Free Trade Agreement, which has fueled the significant intra-regional trade in North America.

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<sup>55</sup> Paul Martin, “Securing the Homeland.”



Prime Minister Paul Martin argues that Canada and the United States, with Mexico in certain areas, “are partners in what is arguably the world’s most advantaged region”.<sup>56</sup> Partner is the key word; partners share both profit and risks in common undertakings. The common undertaking in North America is sustainable wealth generation. The “profit” in North America is prosperity and a high quality of life. Canada, in particular, has benefited from regional trade. Over the last five years, about 75 percent of Canada’s annual international trade was with the US, with a healthy trade surplus in Canada’s favour.<sup>57</sup> Canada’s economic relationship with the US is clearly essential to Canada’s future prosperity.

Partners also share risks in common undertakings. This risk implies that the security of North America should be an important interest to both Canada and the US. Given Canada’s reliance on continental trade, that continental security should be a very high priority for Canada, if not an obligation to maintain its favourable relationship with the US. Canada’s Prime Minister regularly proclaims that the “the security of Canada is indivisible from the security of the United States.”<sup>58</sup> By contributing to the security of the North American continent, Canada is, ultimately, protecting its own prosperity. But does Canada truly share the risk? Canada’s ongoing commitment to the North American Air Defence (NORAD) agreement may be a reflection of Canada’s desire to share the risk or mere tokenism. The threats to North America have evolved significantly, however, since the Cold War when NORAD was designed and implemented. In the new threat

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<sup>56</sup> Paul Martin, “Securing the Homeland.”

<sup>57</sup> Industry Canada, Internet [http://strategis.ic.gc.ca/sc\\_mrkti/tdst/tdo/tdo.php](http://strategis.ic.gc.ca/sc_mrkti/tdst/tdo/tdo.php) accessed 9 March 2005.

<sup>58</sup> Paul Martin, “Securing the Homeland.”

environment, is Canada making an appropriate contribution to the security of North America?

Canada is indeed capable of making an appropriate contribution to the security of North America and sharing the risk. It has not done so, however, due to the Canadian political environment and its foreign policy dilemma. The fundamental tension in Canadian foreign policy is centred on the question, “should our [Canada’s] relations with the United States trump everything else, or should we [Canadians] make sure our foreign policy is global and truly independent of any US policies?”<sup>59</sup> The “continentalist” approach versus the “internationalist” is not significant according to the Prime Minister because Canada’s “interests and values require us to be fully engaged both in North America and on the international stage.”<sup>60</sup> This politically neutral and very Canadian answer of “both” fails to provide focus or priority and is precisely the reason why Canada has moved so slowly in response to the new security paradigm. Like it or not, Canada’s prosperity and quality of life results from its economic relationship with the US. Canadians do not fully understand this interconnectedness because its leaders avoid the issue for fear of being drawn into a debate on Canada’s “foreign policy dilemma” for fear of being seen as too close to the Americans. Canada’s first priority must be to protect its prosperity, which is rooted in its economic relationship with the US. Furthermore, regardless of any threat or lack there of, Canada must do everything possible, to ensure that it is not used in some way to threaten the US.

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<sup>59</sup> Ibid.

<sup>60</sup> Ibid.

Canada's prosperity is dependent on its economic relationship with the US and the strength of the North American region. The continentalist's approach, at least for security should therefore take priority and be fully integrated with Canadian domestic security. With North American interests clearly understood to be first and foremost and appropriate security measures taken to protect these interests, Canada can then address its other interests and values.

As part of the economically powerful North American region and as a state with one quarter of its trade outside of North America, Canada is also a global trader with international interests. It relies heavily on global supply networks, while at the same time it is an important component of these supply networks with about 7 percent of worldwide cargo passing through Canadian ports. This percentage means that in addition to domestic and regional responsibility, Canada has an international responsibility to maintaining these supply networks. Beyond interests, Canada also has a long history of projecting its human values and has demonstrated "long-standing commitments to improving international security and the well-being of people far from our borders."<sup>61</sup> Canada is a rich country and recognizes its advantageous position as a G8 state and as part of the North American region. Beyond its international interests, Canada values a secure world in which to project its values.

During a working visit to Canada in November 2004, President Bush met with Prime Minister Martin and made a joint statement on common security and common prosperity, referring to a new partnership in North America. They committed to increasing bilateral cooperation in North America and the world as well as to continue

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<sup>61</sup> Paul Martin, "Securing the Homeland."

cooperation with Mexico on issues of trilateral importance. Specifically, the two countries recognized:

[t]hat our prosperity, our open societies, and the well being of our democratic institutions are inextricably linked to our security. Our New Partnership will provide a clear, practical guide to protect our peoples and our way of life as we strengthen our global collaboration in support of our common values.<sup>62</sup>

This statement is significant for Canada because it clearly states that Canadian prosperity is inextricably linked to the US. While it does not address Canada's "foreign policy dilemma" directly, it is one of the first post 9/11 high-level statements to reflect the importance of continental security for Canada and its willingness to work closely with the US.

In March 2005, the CBC reported on a tri-national report espousing a joint security perimeter for North America by 2010.<sup>63</sup> The US Council on Foreign Relations, the Canadian Council of Chief Executives and the Mexican Council on Foreign Relations jointly sponsored the report. It calls for creation of a common economic and security community. It proposes a common secure perimeter around the continent and easier movement for people and goods across shared borders, clearly a further move towards interdependence. The proposals were endorsed when Prime Minister Martin and Mexican President Fox met with US President Bush at his ranch in Crawford, Texas in late March of 2005.

A joint perimeter for North America would have a significant impact on the North American maritime environment and would support the requirement for each of the

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<sup>62</sup> Prime Minister of Canada, Internet: <http://pm.gc.ca/eng/news.asp?id=446> , accessed 10 April 2005.

<sup>63</sup> CBC National Television News, 14 Mar 2005.

countries to develop maritime strategies that put a high priority on regional coordination. In addition to a secure joint perimeter, the tri-national report proposed the joint inspection of container traffic at ports.<sup>64</sup> This proposed joint activity reflects the significance of ports in the regional and global context as well as the importance of the marine transportation system and how critical its efficiency has become to the North American economy.

### **NORTH AMERICAN MARITIME SECURITY**

To increase security, prosperity and quality of life, continental leaders have now espoused a coordinated North American effort. This effort includes the effective management of the North American maritime environment. A new sense of coordination is also reflected in the new partnership agenda between Canada and the US. In terms of maritime security, a bi-national military planning group has been established and the two countries have agreed to investigate opportunities for greater cooperation on maritime surveillance and defence, similar to the NORAD agreement. Agreement has also been reached to improve the coordination of intelligence sharing. A secure continental maritime environment will enhance prosperity and ensure that international trade via the marine transportation infrastructure remains unhindered and borders remain open for business but closed to terrorism. A secure maritime environment will consolidate the North American economic leadership position and facilitate expanding economic opportunities in the global marketplace. It suggests an alignment of maritime strategies and will facilitate the unhindered ability to share and prosper responsibly from marine resources within exclusive economic zones and maximize use of the North American

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<sup>64</sup> CBC Internet: [www.cbc.ca](http://www.cbc.ca), accessed 17 Mar 2005.

maritime environment. The partnership espouses improved quality of life for North Americans through sustained wealth generation using the North American oceans and internal waterways.

The new partnership agenda is, in part, a result of the increasing awareness of the security vulnerability of the North American maritime environment. North America has a rich maritime environment that is geographically immense and otherwise unmatched in the world. As the home of two G8 countries, the North American maritime environment supports a significant portion of all world trade. Canada and the US accounted for 25 percent of the World's trade in 2000 and about one third of world GDP.<sup>65</sup> This figure means that the North American maritime environment directly supported about 16 percent of all world trade.

North American maritime security requirements are very complex and pose a considerable challenge to integrate effectively, particularly for Canada as junior partner. Prime Minister Martin recently said: "North American challenges require North American solutions – that respect our differences as sovereign countries while recognizing our common interests as neighbours sharing a continent."<sup>66</sup> Both Canada and the US share an enormous maritime environment and rely on the oceans for sustainable wealth generation.

## **US MARITIME ENVIRONMENT**

The US maritime environment is vast and diverse. With 133,000 kilometres of coastline, the US exclusive economic zone is the largest in the world covering some 8.1

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<sup>65</sup> World Trade Organization, International Trade Statistics, 2001, Table I.6.

<sup>66</sup> Paul Martin, "Securing the Homeland."

million square kilometres.<sup>67</sup> It is larger than the combined land area of all fifty US States. The value of the oceans and coasts to the US is immense and many Americans argue that their full potential remains unrealized. Over half the US population lives in coastal areas and roughly half of the Nation's gross domestic product (\$4.5 trillion of the \$9 trillion GDP in 2000) and 60 million jobs are generated in coastal areas and in adjacent ocean waters.<sup>68</sup> Global trade is an essential and growing component of the US economy, accounting for nearly 7 percent of GDP. The vast majority of US goods pass through the extensive US marine transportation system. In 2001, US ports were major gateways for international trade. Waterborne commerce accounted for 78 percent of total US international trade by weight (1,643 million tons) and 38 percent by value (\$718 billion).<sup>69</sup> The US maritime environment clearly sustains US economic strength and ultimately US power.

Global and domestic trade via the marine transportation system is the centrepiece and economic engine of the US maritime environment. Many foreign flagged vessels are engaged in international trade in the US, however the Jones Act and related cabotage statutes, which are the foundation of the US domestic maritime industry, require that US ships be used for domestic trade. All vessels that transport cargo and passengers between

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<sup>67</sup> Includes US EEZ associated with all US territory (continental and non-continental). The EEZ associated with some small islands like American Samoa add substantially to the US EEZ.

<sup>68</sup> US Commission on Ocean Policy. *An Ocean Blueprint for the 21st Century*. Final Report. Washington, DC, 2004.

<sup>69</sup> US Department of Transportation, Bureau of Transportation. "US International Trade and Freight Transportation Trends 2003," [http://www.bts.gov/publications/us\\_international\\_trade\\_and\\_freight\\_transportation\\_trends/2003](http://www.bts.gov/publications/us_international_trade_and_freight_transportation_trends/2003), accessed 20 March 2005.

US ports must be US built, owned and manned.<sup>70</sup> The Jones Act is meant to encourage a strong US merchant marine, create jobs, and promote safety and environmental protection. Some argue that the Jones Act is outdated, however, the use of fully domestic shipping for domestic trade is considered to enhance national security and reduce associated costs. In addition to marine transportation, the US makes extensive use of its oceans and waterways to generate wealth in all other sectors listed in Figure 2. One can easily apply the COSPA model to the US maritime environment to demonstrate that direct wealth generation is dependent on US maritime trade and industry. The US has also made a significant investment in indirect wealth generation enablers to support “Order and Security” in its maritime environment. Most notably is its Maritime Transportation Security Act of 2002 (MTSA) and its Maritime Strategy for Homeland Security.

The US Maritime Strategy for Homeland Security (MSHS) links the objectives of the US National Security Strategy (NSS) and the National Strategy for Homeland Security (NSHS) to the US maritime environment. It empowers the US Coast Guard, an agency of the Department of Homeland Security (DHS), as the lead federal agency for maritime homeland security when responses require civil authorities and as federal security coordinator in US ports as designated by the MTSA. It balances the Coast Guard’s responsibility for “upholding America’s maritime security against terrorist threat with the imperatives of preserving our fundamental liberties and economic well-being.”<sup>71</sup>

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<sup>70</sup> US Department of Transportation, Maritime Administration, Internet: [http://www.marad.dot.gov/programs/dom\\_ship.html](http://www.marad.dot.gov/programs/dom_ship.html) , accessed 27 April 2005.

<sup>71</sup> The US Coast Guard, *Maritime Strategy for Homeland Security* (Washington, D.C.: U.S. Coast Guard Headquarters, December 2002), i.



The US Coast Guard is extremely flexible in its ability to uphold maritime security due to its statutory character. It is a military force with command and control and multi-mission maritime capabilities with experience conducting complex operations both internationally and domestically. With broad statutory authorities to enforce US domestic law, the US Coast Guard is also a member of the intelligence community. Terrorism is classified as a criminal act unless it is specifically linked to state sponsorship, when it becomes an act of war. Because the US Coast Guard is simultaneously an armed force of the US and a law enforcement agency, it can readily deal with terrorist activity even prior to its classification as a criminal act or an act of war. The US Coast Guard is capable of projecting military force internationally and defending homeland security domestically. This flexibility makes the US Coast Guard the ideal agency to counter today's maritime terrorist threat. In fact, it represents a good model for the navies of nations such as Canada that cannot afford "two navies." The US Coast Guard domestic security activities are guided by the MSHS, which it developed as a constituent of the overall US National Security Strategy.

The MSHS has five strategic objectives that are aligned with the objectives of the superior NSHS and the highest-level NSS. The MSHS reflects the specific issues associated with the US maritime environment including regional and global issues such as the shared use of the oceans and waterways, freedom of navigation and transitional borders. It further reflects extensive collaboration with military, government agencies, and all levels of government, international bodies and private stakeholders. Figure 3 displays the strategic objectives of the MSHS and corresponding strategy elements.

Strategic Objectives	Strategy Elements
Prevent Terrorist Attacks within, and Terrorist Exploitation of the US Maritime Domain	Increase Maritime Domain Awareness
Reduce America's Vulnerability to Terrorism within the US Maritime Domain	Conduct Enhanced Maritime Security Operations
Protect US Population Centers, Critical Infrastructure, Maritime Borders, Ports, Coastal Approaches, boundaries and Seams	Close Port Security Gaps
Protect the US Maritime Transportation System while Preserving the US Maritime Domain for Legitimate Pursuits	Build Critical Security Capabilities and Competencies
Minimize the Damage and Recover from Attacks in the US Maritime Domain as either the Lead Federal Agency or a Supporting Agency	Leverage Partnerships to Mitigate Security Risks
	Ensure Readiness for Homeland Defence Operations

Figure 3: US Maritime Strategy for Homeland Security - Objectives and Elements <sup>72</sup>

The first strategy element is the increase of Maritime Domain Awareness. This element creates a knowledge base into events, conditions and trends in the maritime domain in support of operational and policy decisions. The conduct of enhanced maritime security operations increases readiness and emergency preparedness. It incorporates layered security operations for sea control or denial and collaboration with other government and non-governmental public safety organizations and stakeholders. Within this strategy element, interagency coordination centres, intelligence fusion centres and common procedures are established to ensure unity of effort. Effective coordination

<sup>72</sup> The US Coast Guard, *Maritime Strategy for Homeland Security*, 21.

with US Northern Command and other national control agencies is facilitated by this strategy element. Most importantly, this element ensures the efficient allocation of assets from multiple agencies. The US considers port security to be a particular vulnerability and highlights port security as a “key component” and third strategy element of the MSHS. Using the MTSA to assess the port, the Coast Guard then determines the appropriate security posture of individual ports and assigns appropriate maritime security forces for protection. Coast Guard “Captains of the Port” are assigned to work with Port Security Committees to lead and coordinate security plans. US Coast Guard involvement in port security highlights an important difference between the MTSA and ISPS. Under the MTSA, the US Coast Guard not only assesses risk and vulnerability but is also charged with security enforcement. The use of one agency for security assessment and enforcement is not necessary under the ISPS, which does not address enforcement. In Canada, for example, the Department of Transport approves Port Facility Security Plans but is not responsible for their enforcement.

In building critical security capabilities, the fourth strategy element of the MSHS, the US Coast Guard intends to improve core competencies and recapitalize. Increased capability is planned in the areas of intelligence, surveillance and reconnaissance, command and control, fleet assets and maritime security capabilities with Maritime Safety and Security Teams (MSST), Sea Marshals and a better-equipped National Strike Force (NSF).<sup>73</sup> The fifth strategy element involves partnerships between the public and

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<sup>73</sup> MSST are mobile units comprised of 100 persons and modeled after existing Port Security Units and Law Enforcement Detachments to provide a fast-deployment capability for homeland security. Sea Marshals are the USCG capability to intercept and board incoming ships to the US prior to arrival in port to deter and prevent the ship from being used to conduct a terrorist attack in port. NSF is the USCG capability composed of three mobile units established for rapid response to oil discharges, hazardous substance releases and CBRN.

private sectors and international cooperation in an attempt to create a global defence against terrorism. The sixth strategy element involves readiness for homeland defence operations and ensures interoperability with US Armed Forces. It recognizes that the US Coast Guard will serve as either a supported commander or supporting commander in the conduct of traditional military operations.

The Maritime Transportation Security Act of 2002 is the backbone of the US Coast Guard's ability to provide maritime homeland security. The US President signed it into law on 25 November 2002, about two weeks before the ISPS code was adopted by the IMO. The timing was no coincidence; the Act was developed in parallel with the ISPS code. The US, a signatory to SOLAS 74 was also involved in the development of the ISPS code and has essentially implemented the ISPS through the MTSA. The US was intent to align the MTSA with the new Chapter XI-2 of SOLAS 74 and the ISPS Code Parts A and B and to ensure that security arrangements were as compatible as possible for vessels trading internationally. Regulation 12 of SOLAS 74 Chapter XI-2 allows contracting governments to "implement security measures equivalent to those prescribed... provided such security measures are at least as effective as those prescribed".<sup>74</sup> The MTSA is at least equivalent to ISPS. From the enforcement perspective, it is more effective.

The MTSA applies to vessels operating in US waters (regardless of flag) and, in addition to US domestic ports, foreign ports that receive vessels that later intend to travel to US port facilities. The intention of the MTSA is for users of the global maritime transportation system to benefit from a comprehensive system that will increase the

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<sup>74</sup> International Maritime Organization (IMO), Internet: <http://www.imo.org/home.asp> , accessed 15 March 2005.

efficiency with which vessels and their cargoes will be screened, inspected and cleared. It requires an assessment of all vessels and facilities on or near the water to identify those at high risk of being involved in a transportation security incident.<sup>75</sup> Once the vulnerability is identified, it is the responsibility of the US Coast Guard to identify appropriate measures to mitigate the risk. The MTSA also mandates that the US Coast Guard develop a National Maritime Transportation Security Plan and regional Area Maritime Transportation Security Plans. These plans are intended to deter a transportation security incident to the maximum extent possible. The MTSA requires that all ports, facilities, and vessels have comprehensive security plans and incident response plans based on detailed Coast Guard vulnerability assessments and security recommendations. Once approved by the Coast Guard, all ports, waterfront facilities and vessels, must operate under approved security plans. The MTSA establishes local port security committees to better coordinate the efforts of federal, state, local, and private law enforcement agencies and to advise on security plans. The federal agencies include intelligence, FBI, Customs, Immigration, and the US Coast Guard. The MTSA also directs the US Department of Transport to develop regulations for secure areas in ports, as part of their security plans and to limit access to security-sensitive areas through background checks and the issuance of transportation security identification cards. It establishes a grant program to make fair and equitable allocations to port authorities, waterfront facility operators, and State and local agencies to provide security infrastructure and services and authorizes grants for various types of security upgrades.

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<sup>75</sup> MTSA 2002 defines a transportation security incident as a security incident resulting in a significant loss of life, environmental damage, transportation system disruption, or economic disruption in a particular area.

In terms of enforcement, the MTSA authorizes the Sea Marshal program and requires maritime safety and security teams to safeguard the public and protect vessels, harbors, ports and waterfront facilities. The Coast Guard is authorized to board ships entering US ports in order to deter criminal activity or other terrorist threats and enhances maritime security and safety with the development of maritime safety and security teams. It directs the assessment of anti-terrorism measures maintained by foreign ports that are served by vessels that also call on the US or which are determined to be a security risk to international maritime commerce. It may deny entry to vessels that call on ports that do not maintain effective antiterrorism measures. Important here is that under the MTSA, the US can essentially impose its own standards on foreign ports and impose sanctions on ships that call on ports that do not meet US antiterrorism measures by denying subsequent entry to the US. Finally, the MTSA creates a Maritime Security Advisory Committee to report on and make recommendations on national maritime security matters.

The US Coast Guard is the lead federal agency for Maritime homeland security and the federal maritime security coordinator in US ports. The US Coast Guard, therefore, plays a significant role in protecting US ports against terrorism and ensuring the smooth flow of commerce throughout the world. The US Coast Guard is clearly a value-added organization that is flexible and multi-task capable, the ideal agency for homeland security. In addition to these relatively new roles, the US Coast Guard has unique missions not covered by any other federal agency. It has the primary responsibility of enforcing U.S. fisheries laws, carrying out drug interdiction at sea, search and rescue of mariners, and protecting the marine environment against pollution.

These missions are also consistent with indirect “Order and Security” enablers from the COSPA model

The Department of Transportation and US Customs are the other agencies specifically involved in protecting US ports. Transport is concerned with infrastructure and US Customs is concerned with cargo. The Immigration and Naturalization Service also plays a role in port security monitoring the movement of foreign nationals. With about \$2 billion dollars worth of cargo moving through US ports everyday, the economic impact of a halt to the US maritime transportation system would be severe. There would also be significant regional and global impacts.

In November 2001, the Customs Trade Partnership against Terrorism (C-TPAT) was formed as a joint government-business initiative to offer businesses an opportunity to play an active role in the war against terrorism. Manufacturers, shippers, transportation, and distribution companies joined forces with US Customs to become "low-risk" importers and take steps to secure cargo against terrorism. Businesses that participate in C-TPAT receive benefits, including a cargo "fast lane" through the border. The C-TPAT initiative also strives to push container integrity back to the point-of-origin by placing US Customs officials in foreign ports of loading. Public and private sector cooperation like this demonstrates a clear understanding that sound management principles can be used effectively as an incentive to increase efficiency in support of the “Order and Security” indirect wealth generation enabler.

## **CANADIAN MARITIME ENVIRONMENT**

Bordered by three of the world’s five oceans, the Arctic, the Atlantic and the Pacific, Canada owns 25 percent of the world’s coastline. At nearly quarter of a million

kilometres in total, this separated coastline is the longest in the world and is as diverse as Canada itself.<sup>76</sup> Canada's Arctic Archipelago includes six of the world's 30 largest islands covering some 1.4 million square kilometres and the famed Northwest Passage between the Atlantic and Pacific oceans, although this claim is disputed by some countries including Denmark and the US. With the longest coastline in the world comes an immense offshore exclusive economic zone covering some 3.7 million square kilometres, which is equivalent to 37 percent of Canada's total landmass.<sup>77</sup> The St. Lawrence Seaway is also the longest inland navigable waterway in the world. At 3,700 kilometres long it stretches from the Gulf of St. Lawrence to Lake Superior. Both Canada and the United States share this chain of freshwater lakes and its tributaries. The Great Lakes are an important North American resource that constitutes the largest reservoir of fresh surface water on the planet covering an area of about 186,000 square kilometres.<sup>78</sup> The Great Lakes are the home of many important Canada-US trading ports and population centres. Most importantly, the seaway and lakes provide direct access to highly populated areas and the economic heartland of Canada and the US.

From an economic standpoint, Canada sees a national maritime-related annual GDP contribution of about \$22 billion. Although this amount equates to only about 2 percent of Canada's \$1,056 billion GDP, one must consider Canadian regional economic

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<sup>76</sup> The coastline stretches 243,792 km. Fisheries and Ocean's Canada, Fast Facts, 2. Internet: [www.dfo-mpo.gc.ca](http://www.dfo-mpo.gc.ca); accessed 2 March 2005.

<sup>77</sup> Ibid., 2.

<sup>78</sup> US Commission on Ocean Policy. An Ocean Blueprint for the 21st Century. Final Report. Washington, DC, 2004.



disparity.<sup>79</sup> With Ontario, Quebec and Alberta generating about 75 percent of Canada's GDP, the \$22 billion generated by the ocean's sector is very significant for the provinces and territories directly bordering the oceans. It represents more than 11 percent of the GDP contribution of British Columbia, the Maritime Provinces, Newfoundland and the Territories, or 35 percent of the GDP contribution of this same group less British Columbia, whose economy is less dependent on the ocean sector than the others. Between 1988 and 2000, Canada's average rate of GDP growth was 2.3 percent. Leading this growth in terms of resources was the ocean resources industries with a growth rate of 7.7 percent or more than three times that of national GDP growth. The important ocean sector accounted for about 155,000 jobs annually in Canada between 1988 and 2000, with maritime trade being the most important sector.<sup>80</sup>

Canada's maritime trade routes are critical to the national economy. In 2002, \$103 billion of Canada's \$745 billion of trade was marine trade.<sup>81</sup> Canadian ports handled 283 million tonnes of international cargo. Notably, of this, 62 percent was export-oriented and very significant to Canada's economic performance. In terms of overall value, marine transport accounted for 49 per cent, fully half of all Canadian overseas trade and was the dominant mode for shipping freight.

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<sup>79</sup> GDP in Canadian Dollars for 2004. Source: the February 2005 Monthly Economic Indicators Report – Industry Canada, [http://strategis.ic.gc.ca/epic/internet/ineas-aes.nsf/vwapi/MEI200502e.pdf/\\$FILE/MEI200502e.pdf](http://strategis.ic.gc.ca/epic/internet/ineas-aes.nsf/vwapi/MEI200502e.pdf/$FILE/MEI200502e.pdf), accessed 15 March 2005.

<sup>80</sup> Department of Fisheries and Oceans Statistical Services, Tables 3.25a, 3.26, 3.29 from [www.dfo-mpo.gc.ca/communic/statistics/oceans/economy/contribution/table3-25a-e.htm](http://www.dfo-mpo.gc.ca/communic/statistics/oceans/economy/contribution/table3-25a-e.htm) accessed 15 March 2005.

<sup>81</sup> Government of Canada, Internet: Transport Canada, [http://www.tc.gc.ca/pol/en/Report/anre2003/8E\\_e.htm](http://www.tc.gc.ca/pol/en/Report/anre2003/8E_e.htm) and Industry Canada, [http://strategis.ic.gc.ca/sc\\_mrkti/tdst/tdo/tdo.php](http://strategis.ic.gc.ca/sc_mrkti/tdst/tdo/tdo.php), accessed 15 March 2005.

Canada has the potential to be among the foremost maritime nations in the world. For this to happen, Canadians would have to recognize the importance of their maritime environment. The Canadian population seems to lack an appreciation for the contribution of the maritime environment to their high quality of life. This is not a new observation as noted almost a century ago by Admiral of the Fleet Viscount Jellicoe of Scapa:

In Canada, where so large a population lives at a great distance from the sea, there will always be the inherent difficulty of obtaining recognition of the fact of the dependence of prosperity of the people upon the safety of those sea communications upon which produce travels.<sup>82</sup>

There does seem, however, to be a renewed interest in Canada's maritime environment. In 1997, Canada was the first country in the world to enact oceans management legislation under the Oceans Act. The Oceans Act was followed in 2002 by Canada's Oceans Strategy, which introduced a policy framework for oceans management initiatives.<sup>83</sup> The Oceans Act and Strategy form the foundation of a Canadian Maritime Strategy that would incorporate the Maritime Security component of Canada's National Security Policy.

In April 2004, Canada introduced its first National Security Policy. It recognizes the threats posed in "an increasingly interconnected, complex and often dangerous world." Most significant about the NSP is its very existence. Its existence implies that for the first time, a Canadian Government views national security as a priority, has stated so, and has developed a series of measures that are intended to protect national interests

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<sup>82</sup> Admiral of the Fleet Viscount Jellicoe of Scapa, 1919, taken from *An Incomplete Maritime Nation*, (Ottawa: Maritime Affairs, The Navy League of Canada, 2003), 3.

<sup>83</sup> Department of Fisheries and Oceans, *Canada's Oceans Strategy* (Ottawa: Fisheries and Oceans Canada, 2002).

and values. Also of significance, the NSP or its preceding deliberations yielded government reorganization and the establishment of The Department of Public Safety and Emergency Preparedness Canada (PSEPC). This new department is intended to improve the effectiveness of the government security effort. By bringing several related agencies under the umbrella of PSEPC, there is also an intention to make the security effort more efficient. The six agencies are the Royal Canadian Mounted Police (RCMP), the Canadian Security Intelligence Service (CSIS), the Correctional Service of Canada (CSC), the National Parole Board (NPB), the Canada Firearms Centre and the Canada Border Services Agency. There are also three independent review bodies that ensure accountability and respect for the rule of the law, and two statutory review bodies for CSIS. The Departments of Transport and National Defence also have responsibilities associated with national security. In the absence of specific maritime security policy, these two departments coordinate maritime security requirements with PSEPC in a cooperative but loosely defined manner in accordance with the Marine Transportation Plan described in Canada's NSP. When compared with the US system where the US Coast Guard operates under clear legislation with a clear strategy and well defined interagency coordination requirements it is clear that Canada's NSP does not sufficiently address maritime security requirements.

The NSP focuses on three core national security interests: protecting Canada and Canadians at home and abroad; ensuring Canada is not a base for threats to its allies; and contributing to international security. These interests are reflected in Canada's intentions for transportation security and specifically maritime security. Importantly, the NSP recognizes Canada's responsibility to:

contribute to the security of the North American transportation system by working jointly with our neighbours to manage the security of...our waters, by encouraging stringent, consistent regulatory standards, and by collaborating in our efforts to better detect, assess, and respond to threats.<sup>84</sup>

The policy further recognizes the importance of Canada's regional relationships and globalization by stating that Canada must contribute to the security of the international transportation system. It espouses the requirement to work bilaterally, multilaterally and with international partners to accomplish this task by raising transportation security standards and increasing international cooperation. In particular, the government of Canada pledged to implement a six-point plan to strengthen marine security. Figure 4 provides details of the marine security plan.

In support of the six-point plan, the NSP also pledges to implement a number of additional measures. In order to improve the tracking of vessels operating in Canadian waters, increased surveillance using long-range detection technology will be used. Like the US, a 96-hour advance arrival notification requirement for commercial ships was also implemented. Steps have been taken to increase port security through implementation of the ISPS code and the establishment of RCMP National Ports Enforcement Teams at major ports. Automated targeting systems to identify and target inspections on high-risk cargo have also been invoked along with technology investments to facilitate non-invasive screening of sea containers.

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<sup>84</sup> Privy Council Office, *Securing an Open Society: Canada's National Security Policy* (Ottawa: National Library of Canada, 2004), 35.

<b>Canadian National Security Policy – Marine Transportation Plan</b>	
Clarify responsibilities and strengthen co-ordination of marine security efforts	<ul style="list-style-type: none"> <li>• Minister of Transport has lead responsibility for marine safety and security policy co-ordination and regulation</li> <li>• Minister of Public Safety and Emergency Preparedness has lead responsibility for enforcement and policing</li> <li>• Minister of National Defence has lead responsibility for co-ordination of on-water response to a marine threat or developing crisis in EEZ or along coasts</li> </ul>
Establish networked Marine Security Operations Centres (MSOC)	<ul style="list-style-type: none"> <li>• Headed by CF</li> <li>• Interagency staffing to bring to bear all civilian and military resources to detect, assess and respond to threats</li> <li>• Networked with Coast Guard's vessel traffic and communications systems and with Government Operations Centre in Ottawa</li> </ul>
Increase on-water presence and Department of Fisheries and Oceans aerial surveillance	<ul style="list-style-type: none"> <li>• Canadian Forces, RCMP, and Canadian Coast Guard</li> <li>• Intervene, interdict, and board ships that may pose threats to Canada</li> <li>• Increasing aerial surveillance activities</li> </ul>
Enhanced secure fleet communications	<ul style="list-style-type: none"> <li>• Interoperable communications between government civilian and military fleets and MSOC</li> </ul>
Pursue greater marine security co-operation with the US	<ul style="list-style-type: none"> <li>• Cooperate in the protection and defence of coasts and territorial waters</li> <li>• Pursue enhanced marine security cooperation including mutually high and compatible rules, standards and operations</li> <li>• Collaborating in the security of ports and vessels by conducting common threat, vulnerability and risk assessments</li> <li>• Coordinate MSOC with US Coast Guard Operations Centers</li> </ul>
Strengthen the security of marine facilities	<ul style="list-style-type: none"> <li>• Ports and other marine facilities</li> <li>• St. Lawrence Seaway</li> <li>• ISPS Code mandatory</li> </ul>

Figure 4: Canada's Six Point Plan to Improve Marine Security <sup>85</sup>

Canada's NSP appears to lay the foundation for maritime security with its six point marine transportation plan. It talks about responsibilities and coordination, data and intelligence collaboration, communications interoperability, increased presence and

<sup>85</sup> Privy Council Office, *Securing an Open Society: Canada's National Security Policy*, 38-39.

surveillance, the strengthening of facilities and greater regional cooperation, but it stops short of bringing these higher-level elements together into a specific maritime security policy. A maritime security policy is necessary to link, coordinate and develop the elements contained in the NSP Marine Transportation Plan. Arguably, individual elements are being further developed within departments or agencies having lead responsibility and with the support of the Interdepartmental Marine Security Working Group (IMSWG). This typical Canadian cooperative approach leaves much to be desired because there is no single agency or department with ultimate responsibility. The elements of the NSP Marine Transportation Plan are being developed, but they are being formulated within resource-constrained departments and agencies with differing mandates where there is budgetary incentive to place departmental objectives, on which managers are being assessed, ahead of national priorities. This interdepartmental approach yields sporadic and divided effort at best.

The NSP Marine Transportation Plan should be the basis of a Canadian Maritime Security Policy (MSP), which of course does not currently exist. As a starting point, the NSP Marine Transportation Plan broadly defines maritime security measures that need to be addressed, but most importantly, an MSP derived from the NSP will clearly demonstrate how security of the maritime environment directly supports national security. The US Maritime Strategy for Homeland Security would be a good model on which to build a Canadian MSP. The first page of the US MSHS makes clear that the US Coast Guard is the lead federal agency, that it is responsible to the Department of Homeland Security and that its authority is the Maritime Transportation Security Act of 2002. The US strategy goes on to detail clearly the US Coast Guard's operational roles

for various aspects of homeland security. In particular, it clearly describes when the Coast Guard will be a supported commander (lead role) and under what circumstances the Coast Guard becomes a supporting commander (subordinate role).

Another important component for a Canadian MSP is a robust response or enforcement capability. In order to establish and maintain control of its maritime environment, Canada must have surveillance, monitoring and control capabilities. Figure 4 and the other initiatives associated with Canada's NSP Marine Transportation Plan show that suitable surveillance and monitoring activities are in place or are planned; however, control measures are clearly lacking. Control "includes the execution and rendering effective of international and national rules and regulations."<sup>86</sup> While Figure 4 identifies an increased on-water presence by the CF, RCMP and Canadian Coast Guard, there has been no indication that any of these agencies has the resources required to increase on-water presence substantially. The question of jurisdiction in Canada is also relevant. Figure 4 indicates that the Minister of National Defence has lead responsibility for co-ordination of on-water response to a maritime threat. But, the CF cannot act in a law enforcement role unless specifically requested by the Solicitor General (in the case of assistance to the RCMP). Unlike the US Coast Guard, the Canadian Coast Guard is not an armed service nor is it a law enforcement agency (with some minor exceptions in the areas of fisheries and environmental protection). Given that most threats including non-state sponsored terrorist threats are considered criminal acts, it is the RCMP, or potentially a local police force, that is charged with law enforcement and appropriate response. In the case of an on-water maritime incident the RCMP will likely request CF

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<sup>86</sup> Francois N. Bailet, Fred W. Crickard and Glen J. Herbert, *Integrated Maritime Enforcement: A Handbook* (Halifax: Dalhousie University, 1999), 13.

or Coast Guard support. That support will likely be limited to vessels used to support police operations. The RCMP has not committed significant personnel to on-water patrols, nor have there been routine on-water patrols established by the CF or Coast Guard to support RCMP activities.

## **MARITIME STRATEGY**

In developing a national maritime strategy, John Hattendorf takes a broad perspective and goes beyond traditional thinking where defence and trade are focal points. He advocates:

maritime strategy involves the other functions of state power that include diplomacy, the safety and defense of merchant trade at sea, fishing, the exploitation, conservation, regulation and defense of the exclusive economic zone at sea, coastal defense, security of national borders, the protection of offshore islands as well as participation in the regional and worldwide concerns relating to the use of oceans, the skies over the oceans and the land under the seas.<sup>87</sup>

Thus far, the elements of maritime strategy as advocated by Hattendorf have been considered: the global importance of the maritime environment to interdependent states and regions, the uses of the oceans for sustainable wealth generation, the maritime security environment, the maritime legal framework and the US and Canadian maritime environments. The difficulty lies in bringing all these issues and activities associated with the maritime environment together into a coherent maritime strategy. Such a strategy would typically be developed for a state, but should incorporate the state's regional and global maritime interests. In North America, the recent tri-national proposal for a continental security perimeter would support a certain degree of alignment between the three nation's maritime strategies. In addition to regional cooperation, there is an

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<sup>87</sup> John B. Hattendorf, Chapter 13 "What is Maritime Strategy?," *Naval History and Maritime Strategy: Collected Essays*, 229-240 (Malabaar, FL: Kreiger Publishing Company, 2000), 236.



increasing trend to take a more holistic view of the ocean environment when developing a maritime strategy. Where defence and marine transportation were once the main areas of interest in maritime strategies, now the importance of the whole of the maritime environment and its interaction is gaining attention. Canada's Ocean's Strategy is based on the three principles of sustainable development, integrated management and the precautionary approach. These principles are supported by policy objectives that are broadly linked to the COSPA model in Figure 1 and identified for the advancement of oceans management activities: understand and protect the maritime environment; support sustainable economic opportunities; and international leadership.<sup>88</sup> Canada's Ocean's Strategy "supports and promotes effective governance and regulation, including the exercise of national sovereignty and security," but falls short of making a strong link to maritime security and defence initiatives.<sup>89</sup> If this link was established and Canada's maritime security and defence initiatives developed into policy, Canada would be well on its way to having a coherent maritime strategy. The other necessary component to building an effective maritime strategy is the alignment of strategy elements within North America and internationally where required.

In the US, the high-level policy document "An Ocean Blueprint for the 21<sup>st</sup> Century" takes a similar holistic approach. The policy advocates an ecosystem-based management methodology:

As part of a national move toward an ecosystem-based management approach, the efficient, safe, and secure movement of cargo and passengers should be well

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<sup>88</sup> Department of Fisheries and Oceans, *Canada's Oceans Strategy* (Ottawa: Fisheries and Oceans Canada, 2002), 10-12.

<sup>89</sup> *Ibid.*, 17.

coordinated with other ocean and coastal uses and activities, and with efforts to protect the marine environment.<sup>90</sup>

In the US context, the ocean policy represents one pillar of an overall maritime strategy that also includes maritime defence and maritime security. Beyond obvious differences in resource allocation, the key difference between Canada and the US is the clarity in policy, strategy and responsibility. The very high level commission that developed the “Ocean Blueprint” clearly identified eleven of fifteen cabinet level departments and four independent agencies as having important roles in the development of ocean and coastal policy. In addition there are three entities within the Executive Office of the President with some responsibilities relevant to oceans. This level of complexity is no different than in Canada. The difference is the recognition for clear leadership and control. The US Commission developed a National Ocean Policy Framework and recommended that the US Congress establish a National Ocean Council (NOC) within the Executive Office of the President. Chaired by an Assistant to the President, the NOC has real power to provide high-level attention to ocean, coastal, and Great Lakes issues, develop and guide the implementation of appropriate national policies, and coordinate the many federal departments and agencies with ocean and coastal responsibilities.

The remaining two components of US maritime strategy are homeland defence and homeland security. While these terms are used interchangeably in Canada, they clearly define roles in the US. The US defines homeland defence as, “the protection of US territory, domestic populations and critical infrastructure against military attacks...[whereas homeland security] is a concerted national effort to prevent terrorist

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<sup>90</sup> US Commission on Ocean Policy. An Ocean Blueprint for the 21st Century. Final Report. Washington, DC, 2004.

attacks within the US.’’<sup>91</sup> The US Department of Defence, specifically US Northern Command is responsible for homeland defence and the US Department of Homeland Security is responsible for homeland security, with the US Coast Guard specifically responsible for maritime homeland security.

By considering the components of what would be Canadian and US maritime strategies in parallel, one can appreciate where Canada and the US can easily work together in terms of a North American maritime strategy and where gaps exist. Figure 5 provides a basic comparison of the effectiveness of each of the strategy components discussed.

	Canada	United States
Clarity of Policy/Responsibility		√
Ocean Policy	√	√
Homeland Security		√
Homeland Defence	√	√

Figure 5: Maritime Strategy Components of Canada and the US

The Canadian NSP contains a Marine Transportation Plan with six broad areas for action. While a good start, the “centrepiece” body for Canadian maritime security, the IMSWG, has not developed follow-on maritime security policy for Canada. Several analysts argue that the interdepartmental committee structure and breadth of participation in the IMSWG make the likelihood of it successfully developing the necessary policy remote. The Marine Transportation Plan’s first area for action involves the clarification of responsibilities and strengthening of coordination of marine security efforts. It advocates a cooperative approach amongst departments and agencies. Supporting policy is necessary to define clearly the scope of leadership responsibility and control

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<sup>91</sup> The US Coast Guard, *Maritime Strategy for Homeland Security* (Washington, D.C.: U.S. Coast Guard Headquarters, December 2002), 31-32.

arrangements. Furthermore, despite the recognition that surveillance is key to maritime security, a national surveillance plan has not been developed. Canada's ocean policy is comprehensive like the US policy. The Canadian policy does not, however, make a strong link to defence and security like its American counterpart. Despite this missing linkage, which is also due to insufficient leadership responsibility and control arrangements, Canada's ocean policy is suitable for coordination with the US policy as part of a North American ocean policy. On homeland security and homeland defence, there is a significant disconnect. Using the US definition of the terms, Canada does not have a comprehensive homeland security policy and specifically a maritime homeland security policy. Such a focussed policy may never exist in Canada. Rather, a maritime homeland security policy for Canada will be a component of Canada's maritime defence strategy. In "Leadmark: The Navy's Strategy for 2020", Canadian naval roles are divided into three components: military, diplomatic and constabulary. The constabulary role focuses on the security of Canadian sovereignty and incorporates sovereignty patrols, aid to the civil power, assistance to other government departments, search and rescue, disaster relief, and ocean management.<sup>92</sup> This constabulary role is not the responsibility of the navy in the US; it is a US Coast Guard responsibility. So, important to note, is that in Canada, like other states with limited resources, it is necessary to overlap tasks like civil policing with traditional naval tasks. The Canadian navy certainly has the capability to perform its constabulary role; however, it has not been provided with an appropriate mandate or resources to do so effectively. The mandate or authority would be explicitly stated in a maritime security policy and would identify clear leadership relationships and

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<sup>92</sup> *Leadmark: The Navy's Strategy for 2020*. Internet: [http://www.navy.dnd.ca/leadmark/doc/index\\_e.asp](http://www.navy.dnd.ca/leadmark/doc/index_e.asp); accessed 15 January 2005.

control arrangements within the integrated, interdepartmental, national and regional approach to maritime security that is taken in Canada.

In developing the Canadian navy constabulary role, the US Coast Guard could be used as model. The navy's traditional national defence and diplomacy roles would not change, but its constabulary role could be based on legislation similar to the US MTSA. This legislation would give the navy statutory authority to enforce specific maritime security measures in Canadian waters and ports. Maritime security policy would then establish operational roles and define relationships with RCMP, Coast Guard and other government departments and agencies much like the US Maritime Strategy for Homeland Security does. The legislation and supporting policy would provide the necessary authority on which the navy could define its force structure and requirements to fulfill the maritime security role.

A more efficient way to achieve maritime security could be the establishment of a North American Coast Guard. This approach would be consistent with the recent Canada – US “New Partnership” agreement which advocated the increased bilateral cooperation and strengthening of collaboration to protect North American citizens. In March 2005, Prime Minister Martin, President Fox and President Bush endorsed a proposal for a continental perimeter. A North American Coast Guard would provide a practical means to secure such a perimeter. Alignment of maritime strategies and legislation passed by all three governments, negotiated on a North American basis would be necessary to support such an initiative. The US Coast Guard model could be used as the basis for the North American Coast Guard. Canadian and Mexican contingents would be assigned commensurate with the requirements of each country's maritime environments.

Canadian naval forces established to fulfill the maritime constabulary role could be assigned as Canadian contingent. Common doctrine, training and ships would ensure interoperability and minimize costs.

## CONCLUSION

Globalization has increased the interdependency of states. Regional unions and trade agreements have increased regional interdependency even further. The level of interaction between sovereign states has grown to unprecedented levels and it is the maritime environment that supports most of this interaction. Within the maritime environment, it is the ports that are the hub of activity. Given the traditional importance of ports to the global transportation system, very large cities and population centres have grown around them making ports very vulnerable to terrorist threat and exploitation.

Port security is one small but extremely important component of a state's overall maritime security requirement. Port security is important because ports are the interface between the land on which the world's business is conducted and the maritime environment. A significant disruption in a major port anywhere in the world will immediately impact global trade and economics. This vulnerability is particularly true for major North American ports. North America is responsible for about one quarter of the world's trade and the majority of this trade moves through its major ports. Because population centres have grown around ports, a deliberate terrorist attack against a major port also has the potential to yield significant casualties.

Because ports are of such importance in the globalized world, but are only a component of the maritime environment, their security requirements cannot be considered in isolation. Ports need to be considered as part of a state's maritime strategy. A maritime strategy brings together all maritime functions of state power and coordinates these with regional and worldwide concerns relating to the use of the oceans. A maritime

security policy, which addresses port security concerns, would be a component of a state's maritime strategy.

A maritime strategy enables two important forms of communication. First, a maritime strategy facilitates discussion and negotiation between states regarding their common maritime interests and collaboration. Second, within a state, a maritime strategy can be used to demonstrate the national importance of the maritime environment. Through public communication of maritime national interests, awareness can be raised and support gained for the necessary costs associated with the management of the maritime environment. A maritime strategy is, therefore, an important tool.

Maritime and port security initiatives can be, and are, advanced in the absence of a maritime strategy. So why is it so important? In the absence of other priorities and scarce funding resources, a maritime strategy would not be important. In Canada, where priorities abound, least of which involve the often forgotten maritime environment, a maritime strategy is necessary to raise awareness and public support. Canada has been slow to respond to the new security threat environment precisely because of a lack of awareness and public support. If Canadians fully understood the importance of Canada's North American relationship and global interdependence as it relates to the maritime environment, there is no doubt that Canadians would make the security of that relationship and global interdependence a priority. Canadians have not yet appreciated the importance of Canada's maritime environment within North America and the world and it is reflected in Canada's vulnerable ports, where a false sense of security has evolved. A maritime strategy is needed in Canada so that maritime national interests can be adequately secured.



Canada's Ocean's Strategies Project – The Atlantic (COSPA) developed an excellent model that can be applied universally, called the Organizing principle for sustainable wealth generation. The COSPA model demonstrates how a state uses the maritime environment for sustainable wealth generation and would be an ideal model around which a maritime strategy is built. The model rationalizes the uses of the oceans into direct wealth generators and supporting indirect wealth generation enablers. These enablers are broadly grouped as “Order and Security” activities and could be the basis for a state's maritime security policy. The model establishes a clear link between wealth generation and the necessary supporting enabling activities.

Threats to the maritime environment are increasing throughout each of its segments. Globalization and interdependency requires that a state must now be concerned with all threat areas and have the ability to respond both globally, either directly or collaboratively, and domestically. UNCLOS, which is often referred to as the New Constitution for the Oceans, established the rights and obligations of coastal states in maritime zones under their sovereignty or jurisdiction. It provides an international rule set for states in a shrinking maritime environment where vast areas of the high seas now fall under national jurisdiction. As the world became virtually smaller due to globalization and transnational activity increased, it became apparent that new rules were necessary to facilitate secure maritime interaction. Thus, the International Ship and Port Facility Code was born.

The ISPS code is a risk management tool developed by the UN's International Maritime Organization to establish the minimum conditions necessary for the security of ships and port facilities. The US also developed a risk management framework known as

the Maritime Transportation Security Act. Both the ISPS and MTSA are very similar, however the MTSA is more aggressive in terms of enforcement. Canada played a significant role in the development of the ISPS code and implemented it in 2004 as part of a six-point plan to improve marine security.

Canada's National Security Policy identified the six-point plan to address a broad range of maritime security initiatives. In typical Canadian fashion, a cooperative approach to address the maritime security requirement was adopted using the Interdepartmental Marine Security Working Group formed to coordinate federal response to maritime security, analyze marine systems for security gaps, and develop possible mitigation initiatives to address these gaps. The IMSWG is moving maritime security initiatives in the right direction, but a lack of clear leadership, in which to develop a maritime security policy, and sufficient funding are limiting factors. Several analysts argue that the interdepartmental committee structure and breadth of participation in the IMSWG make the likelihood of it successfully developing the necessary maritime security policy remote. Progress has been made, and several important initiatives have been moved forward.

Of the maritime security initiatives that have been developed, most maritime security resources have been devoted to domain awareness. As the foundation of a maritime security plan, domain awareness directly supports information superiority, which is arguably the most effective way to prevent terrorist or criminal activity. Domain awareness indirectly supports port security requirements but does not address one of the fundamental requirements of port security, the ability to respond physically to a waterside threat in or near the port. Canada is sorely lacking in this capability. When

compared to the US, it is apparent that Canada's lack of maritime security policy, lack of clarity in existing policy and interdepartmental/interagency relationships and lack of funding for the assets necessary to respond physically to threats in or near ports is the reason. One only needs to compare port security to airport security in Canada to realize that the existing strategic approach to port security in Canada is currently inadequate.

Some argue that unlike the US, the threat to Canadian ports does not necessitate increased security and that the risk-based approach taken in Canada is sufficient to counter current threats. This view reflects isolationist thinking and is clearly not sensible given Canada's position in North America and the globalized world. As part of the North American Free Trade Agreement, fully three quarters of Canada's trade is with the US. Canada's economic relationship with the US is fundamentally essential to Canada's prosperity. Continental security should be a very high priority for Canada, if not an obligation to maintain its favourable relationship with the US. Canada must understand the security threats associated with the whole of the continent and do its share to address these threats.

The US is very concerned with that one small but extremely important component of maritime security – port security. Major Canadian ports may as well be major US ports in this North American region where the interdependence of Canada, the US and Mexico is growing to unprecedented levels. In this transshipment era, Canada needs to assuage US concerns over the security of its ports with robust port security. The US has achieved this by making a single agency, the US Coast Guard, responsible for maritime homeland security, providing it with authority under the MTSA, appropriate resources commensurate with the task and clearly defining in policy how this lead agency will be

supported by other agencies or departments. It also defines how the Coast Guard will support others for issues outside of maritime homeland security.

Canada will never have a second navy like the US does in its US Coast Guard. Canada and states like it with limited resources must use interdepartmental collaboration to overlap tasks like civil policing with traditional naval tasks and at-sea presence. The Canadian Navy has a constabulary role and the ability to support the RCMP in national security and the Canadian Coast Guard has the ability to maintain at-sea presence and provide vessels from which the RCMP can conduct security operations. All the pieces of the puzzle are available. What is needed is the code or maritime security policy to put the pieces together.

Executive level leadership is necessary to bring together, coordinate and control departmental and agency representatives to build a maritime strategy and a supporting maritime security policy. The maritime security policy should build on the Marine Transport Plan laid out in the NSP. The maritime strategy can be used to communicate with the US regarding common maritime interests and collaboration and be used as the basis to discuss options such as a North American Coast Guard. With Canadians, it will demonstrate the national importance of the maritime environment and the importance of the Canada US maritime relationship. A maritime strategy will raise awareness and help build support for the requirements of maritime security policy. Maritime security policy should address all Canada's maritime security issues. On enforcement, in particular, it must establish a clear command and control relationship between the RCMP, the Canadian Navy, and the Canadian Coast Guard. It must define the tasks that each agency will do and allocate appropriate funding commensurate with those tasks. Once a

Canadian Maritime Strategy is in place supported by Maritime Security Policy, there will be no more false sense of security in Canadian Ports.

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