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**CHASING THE LEADMARK:
IS THERE A PLACE FOR THE OFFSHORE PATROL VESSEL?**

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**CHASING THE LEADMARK:
IS THERE A PLACE FOR THE OFFSHORE PATROL VESSEL?**

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ABSTRACT

This essay will argue that although Offshore Patrol Vessels (OPVs) can make a significant contribution to the Canadian Navy and the Government's Canada First Defence Strategy, they should not be introduced at the cost of our current Rank 3 Medium Force Projection Navy. In coming to this conclusion, this essay will first examine how a maritime nation creates a naval strategy that meets its objectives. It will examine the foundation of naval strategy and show the differences between domestic and international contexts. Using *Leadmark*, the essay will then examine the traditional roles of a navy and describe the various naval tasks and missions expected of our current navy, and also examine where it is lacking in capabilities and efficiencies. As examples, Australia, the United States, the United Kingdom and Denmark have been chosen to demonstrate how their respective maritime forces have evolved in the 21st Century to address the new military and non-military threats to their national interests. Lastly, Canadian solutions with respect to enhancing our current fleet mix, bringing it in line with the current and future operating environment will be considered.

In conclusion, it will be shown that Canada, with her current stance towards international affairs, requires a blue water navy capable of supporting U.N and coalition stability and security operations throughout the world's maritime environment. Reductions to her major combatant fleet would seriously affect Canada's ability to respond to all the tasks expected of it by the Government. However, the addition of capable OPVs, operated by the Reserves, would undoubtedly increase and enhance the navy's capability and capacity to undertake many of the tasks across the spectrum, particularly in the domestic arena.

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CHASING THE LEADMARK: IS THERE A PLACE FOR THE OFFSHORE PATROL VESSEL?

Chasing the leadmark is a naval term used regularly to describe a young navigator's poor practice of pointing a planned track at a charted terrestrial object even though doing so results in an unnatural lie for that track. Of course, when properly planned, one's tracks should follow the natural flow of the channel favouring the starboard side, and should ideally transmit one's intentions through their sensible flow. When a novice navigator "chases leadmarks", his tracks will zig-zag down the passage and send a confusing sense of where the ship is going. How the navy should position itself in order to provide the government with the balance between domestic and international commitments that it is looking for in its recent National Security Policy and its International Policy statement, all the while awaiting the promised Canada First Defence Strategy, is reminiscent of that young navigator searching for that elusive leadmark from which he can plan a sensible track.

The Canadian Navy today is comprised of 12 multipurpose Frigates, 3 Destroyers, 2 Underway Replenishment vessels, 4 diesel submarines and 12 Maritime Coastal Defence Vessels. This Navy is divided between the East and West Coast of Canada and according to *Leadmark*, the navy's strategic vision, is considered a Rank 3 Medium Global Force Projection Navy.¹ This means that the Canadian Navy, although not having

¹ Rank 1, 2 and 3 navies are mentioned throughout this essay. As defined in *Leadmark*, a Rank 1 Major Global Force Projection Navy (Complete) is "capable of carrying out all the military roles of naval forces on a global scale...E.g., United States." A Rank 2 Major Global force Projection Navy (Partial) are those that may not have available to them directly the complete gamut of force projection capabilities, they have the majority of them and are able to participate in a single major operation in the global. A Rank 3 Medium Force Projection Navy is one "that may not possess the full range of capabilities, but have a credible capacity in certain of them and consistently demonstrate a determination to exercise them at some distance from home waters...E.g., Canada, Netherlands, Australia." Maritime Command, Directorate of Maritime Strategy, *Leadmark: The Navy's Strategy for 2020* (Ottawa: DND Canada, 2001), 44.

all the capabilities that a navy could possess, has a “credible capacity” in certain maritime functions. Also, it not only has the ability to exercise these capabilities away from home waters but has the national will to do so in concert with other navies.² In the words of Captain W.T.T. Pakenham, RN, “Most navies are provided for similar purposes; the deterrence of war, the prosecution of war should deterrence fail, and the protection and advancement of national interests in times of peace.”³ This statement illustrates that a navy is capable of spanning the operational spectrum of diplomatic, military and constabulary roles not only in the domestic but also on the international stage.

Lately, the current government has been promoting a Canada First Defence Strategy. The navy has a significant presence in both the Atlantic and Pacific oceans, but what about Canada’s other ocean, the Arctic? The Navy has had a renewed interest in the North, and for the last two summers has sent ships north to take part in various exercises with the Air Force and the Army. As climate change affects the north and slowly opens the Northwest Passage to more and more civilian shipping, the Navy could be involved a great deal more. The general public has also seen the government’s renewed interest in protecting Canadian sovereignty in the north, with the recent announcements of Arctic Patrol Ships, a new deep water port in Nanisivik, Nunavut, and a new Army Arctic Training centre in Resolute, Nunavut. All of these announcements seem to indicate a shift in the governments focus towards enabling the Canadian Forces and more specifically, the Navy, to contribute to a greater extent to the Canada First Defence

² *Ibid.*, 44.

³W. T. T. Pakenham, *Naval Command and Control*. Brassey's Sea Power. 1st -- ed. Vol. 7 (Washington: Brassey's Defence Publishers, 1989), 1.

Strategy. To most, including those military types not closely associated with the Navy, this means a greater emphasis in our own backyard and a greater emphasis on regional and territorial security and less on the global force projection role currently held by our Navy.⁴

The roles of any navy in the world are a combination of military, constabulary and diplomatic, with the emphasis being placed on that which the government deems most important to their defence strategy. The Military role is very clear and is what defines the naval force. From *Leadmark*, the military role is what defines a navy and allows the political leaders to have a tool that allows for “individual and collective self defence and the use of force in an intervention to restore regional stability.”⁵ In many ways, naval forces may be the most appropriate choice for governments to demonstrate military presence and resolve in a crisis situation. The unique nature of naval forces allows for several degrees of freedom in that their presence does not irretrievably commit the government to direct action. However, the opposing state must expend significant time and effort in designing an appropriate response. The ability for a naval force to be self-sufficient and not reliant on bases within other countries allows the government to be indifferent towards another state’s restrictions with respect to the current crisis.⁶ In other words, a naval force allows the government flexibility in its designs in dealing with a

⁴ Several newspaper articles commenting on the yet to be announced Canada First Defence Strategy all indicate that this strategy should or will entail a greater emphasis on the domestic role of the military, although some still point out the importance of our international commitments. The main author of these articles is David Pugliese, a defence reporter with the *Ottawa Citizen* newspaper.

⁵ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 35.

⁶ R. James Woolsey, “Planning a Navy: The Risks of Conventional Wisdom,” In *Naval Strategy and National Security*, ed. Steven E. Miller and Stephan Van Evera, 3-15 (Princeton: Princeton University Press, 1988), 11.

burgeoning crisis; acting as a deterrent in an effort to de-escalate the situation, placing naval forces in position for future direct action in the event deterrence fails, and withdrawal of these forces with little fanfare in the event the situation is resolved.

The Constabulary role is, in simple terms, the support function a navy provides to another government department in the enforcement of domestic statutes of law.⁷ This role has seen an increase in tasks such as environmental protection, control of drug and arms trade, and most importantly, the protection of depleting natural resources. Throughout the world, the Constabulary role is increasing as countries look towards the oceans as the source for new natural resources. For example, certain countries, Canada included, are exercising their rights beyond the 200 nautical mile Economic Exclusion Zone (EEZ) for the protection of certain fish stocks.⁸

The final side of the triangle is the Diplomatic role. According to *Leadmark* this role is essentially the “management of foreign policy short of the actual employment of force.”⁹ This act of “showing the flag”, provides a “clear sign of commitment and intention which, like the force itself, can be closely controlled.”¹⁰ This will remain a key role for Canada’s Navy as the government continues “to seek to influence the global security agenda by remaining engaged internationally.”¹¹

⁷ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 40.

⁸James King, “Internationalism and a Blue Water Navy” in *Maritime Forces in Global Security : Comparative Views of Maritime Strategy as we Approach the 21st Century*, ed. Ann Lynn Griffiths and Peter T. Haydon (Halifax: Centre for Foreign Policy Studies, Dalhousie University, 1995),268.

⁹ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 30.

¹⁰ King, “Internationalism and a Blue Water Navy...”, 269.

¹¹ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 96.

In order to achieve these roles effectively, naval forces should form part of the national strategy and the foreign/defence policy, both of which they are designed to support.¹² On top of this, naval forces must also be credible and effective. But why does Canada need a naval force? By definition, Canada is a Maritime country. A Maritime country is one whose fundamental interests are sea related or can be secured by maritime means and has associated merchant and fishing fleets. Charles Koburger argues that within its Territorial Waters (TTW) and EEZ a nation will have rights and responsibilities: “protecting its sovereignty, jurisdiction and recognized control; good order, including measures for safety of navigation, SAR, and against piracy, smuggling, drug trafficking, illegal fishing, ship source pollution and waste disposal; and resource use.”¹³ All these issues need to be dealt with within Canada, and although there is very little direct military threat to our sovereignty, there is an increase in security threats with respect to areas of protection of offshore resources, environmental concerns, drugs and illegal immigrant smuggling.¹⁴

In order to address many of these emerging threats to a nation’s domestic interests, many nations are acquiring smaller Offshore Patrol Vessels (OPV). These

¹² Numerous definitions abound for maritime forces. In some publications maritime forces are only those elements of the military that are linked in some way to the maritime environment, be they navy, air force or marines. In others, maritime forces incorporate not only the military, but also other governmental departments that are also associated with the maritime environment, such as the Department of Fisheries and Oceans, Coast Guard, etc... In order to be all inclusive, for the purpose of this essay I will use the later definition for maritime forces.

¹³ Charles W. Koburger, *Sea Power in the Twenty-First Century: Projecting a Naval Revolution* (Westport, Conn.: Praeger, 1997), 19-20.

¹⁴ Robert H. Thomas, “Regional and Canada-US Considerations of Future Canadian Naval Capabilities,” in *Maritime Forces in Global Security : Comparative Views of Maritime Strategy as we Approach the 21st Century*, ed. Ann Lynn Griffiths and Peter T. Haydon (Halifax: Centre for Foreign Policy Studies, Dalhousie University, 1995),295.

vessels come with the capacity to undertake many domestic roles, but also have limited use in an expeditionary or force projection role. With the Conservative Government's Canada First Defence Strategy coupled with the current fiscal and personnel constraints, does it make sense for the Canadian Navy to make a switch to an OPV based navy, surrounding a smaller Destroyer, Frigate, Joint Support Ship core? This essay will argue that although OPVs can and will make a significant contribution to the Canadian Navy and the Government's Canada First Defence Strategy, they should not be introduced at the cost of our current Rank 3 Medium Force Projection Navy.

In coming to this conclusion, this essay will first examine how a maritime nation creates a naval strategy that meets its objectives. It will examine the foundation of naval strategy and show the differences between domestic and international contexts. Using the Canadian Navy's strategic vision publication *Leadmark*, the essay will then examine the traditional roles of a navy and describe the various naval tasks and missions expected of our current navy, and also examine where it is lacking in capabilities and efficiencies. As examples, Australia, the United States, the United Kingdom and Denmark have been chosen to demonstrate how their respective maritime forces have evolved in the 21st Century to address the new military and non-military threats to their national interests. Lastly, Canadian solutions with respect to enhancing our current fleet mix, bringing it in line with the current and future operating environment will be considered.

NAVAL STRATEGY

Canada's current National Security Policy highlights the potential threats to Canadians, both domestically and internationally. It stipulates that our national security "deals with threats that have the potential to undermine the security of the state or society...is closely linked to both personal and international security."¹⁵ Three main security interests make up the framework for this policy: the protection of Canada and its citizens at home and abroad; guaranteeing Canada does not become a stepping stone for organizations threatening our allies; and continuing in their efforts to enable international security.¹⁶ The Navy has and will continue to contribute to all three of these core national security interests.

The global population is increasing at a rate never before seen, with the majority of growth occurring in coastal regions. This is exacerbating an already strained global trade system with an enormous demand for food, fuel and raw materials. This growth directly impacts the sea as there is more demand by countries to exploit its natural resources.¹⁷ The importance and capability for states to exploit the natural resources in the sea (including fishing) and in the seabed has increased, forcing nations to put an increased emphasis on protection of these resources as national interests. However the aspect of the power of transportation has not changed. The requirement to move men and

¹⁵ Privy Council Office, *Securing an Open Society: Canada's National Security Policy* (Ottawa: Privy Council Office, 2004), 3.

¹⁶ *Ibid.*, 5.

¹⁷ Koburger, *Sea Power in the Twenty-First Century...*, 16. Examples of countries being pressured to exploit are easily gleaned from multiple sources. An example of the benefits and the dangers in this exploitation can be seen in East Timor, where the increase in offshore oil development is increasing an expectation of betterment in their everyday lives. Lee J. M. Seymour, "East Timor's Resource Curse?" *Far Eastern Economic Review* 163, no. 48 (Nov 30, 2000): 36.

material globally by sea has exceeded fishing in economic and military importance.¹⁸ Looking at the world's states, only thirty countries are completely landlocked and 150 countries have either a navy or a coast guard, and as will be demonstrated later, increases in technology and geography will allow small forces to have an enormous impact on countries with larger navies.¹⁹

A nation's national security strategy must be the keystone to a nation's maritime policy.²⁰ The national security strategy is "the art and science of applying and coordinating all the elements of national power (military, economic, financial, diplomatic, psychological, technological and others) to achieve national objectives in peacetime and in war, to secure national objectives."²¹ As a result of its creation from the national security strategy, a nation's national maritime policy should be unchanging as long as its national interests and foreign policy remain fixed.²²

It is very important for maritime states to define an all encompassing national maritime policy that, according to Crickard, Haydon and Ross, is composed of "a maritime strategy, an oceans management policy, a corpus of maritime law, a realistic

¹⁸ Kevin L. Falk, *Why Nations Put to Sea: Technology and the Changing character of Sea Power in the Twenty-First Century* (New York: Garland Publishing Inc., 2000), 85.

¹⁹ King, "Internationalism and a Blue Water Navy"... , 270.

²⁰ An excellent source on the relationships between naval power, strategy and national security can be found in the collection of essays located in the *International Security Reader, Naval Strategy and National Security*, ed. Steven E. Miller and Stephan Van Evera (Princeton: Princeton University Press, 1988).

²¹ Milan N. Vego, *Naval Strategy and Operations in Narrow Seas* (Portland: Frank Cass Publishers, 1999), 1.

²² F. W. Crickard, Peter T. Haydon, Douglas A. Ross, *Canadian Perspectives on Maritime Strategy*, Canadian Centre for Arms Control and Disarmament Issue Brief Vol. 11 (1990),5.

concept of maritime contingency planning for all forms of emergency, and a maritime education system.”²³ They go on to argue that this national maritime policy should include: a navy for defence, diplomatic and jurisdictional roles as required, becoming an instrument of both domestic and international policy; a civil maritime administration to ensure safety of navigation, preservation of life at sea and various regulatory tasks; a merchant marine to ensure economic growth, to support outlying communities and for the exploitation and management of ocean resources; and a marine industrial base capable of supporting all of the above.²⁴

As alluded to above, an integral part of the maritime strategy is the navy and its corresponding policy and strategy. More so than naval strategy, naval policy is generated to a great degree by domestic politics. Naval policy according to Crickard is the culmination of “all political, diplomatic, budgetary, social, and purely military decisions taken by the country’s highest political and naval leadership that affect the country’s naval situation...the size and composition of the fleet, number of personnel, and organization of [naval] forces.”²⁵

Naval strategy is the “art and science of using sources of military power in a sea/ocean theatre to accomplish naval elements” of the nation’s national strategic objectives, in concert with other elements of national power, by force or the threat of force.²⁶ That is to say that the naval strategy, as a fundamental part of national security

²³ *Ibid.*, 5.

²⁴ *Ibid.*, 5.

²⁵ *Ibid.*, 2.

²⁶ Vego, *Naval Strategy and Operations in Narrow Seas...2*.

for a maritime nation, is a continual balance between military and various non-military sources of national power that are used to achieve strategic goals.

During peacetime, the elements of national power are in the forefront, whereas during a crisis or in conflict, it is the military elements that take the lead.²⁷ According to ex-US Chief of Naval Operations, Admiral James D. Watkins, naval strategy is required to give “a global perspective to operational commanders,” and “provides a foundation of advice to the National Command Authorities.”²⁸ In other words, naval commanders require a succinct and comprehensive naval strategy in order to be able to make politically aware military advice with respect to maritime matters. The naval forces developed to support this strategy must be balanced as a function of the country’s domestic and international interests.²⁹

Clearly, Canada is a maritime nation that requires a national maritime policy. As a result of being surrounded on three sides by the Atlantic, Pacific and Arctic Oceans, Canada has the longest coastline in the world and, with the inclusion of the EEZ, is responsible in those oceans for an area equivalent to almost 70% of our land mass.³⁰ It is estimated that approximately one third of Canada’s GNP is directly or indirectly derived from the sea.³¹

²⁷ *Ibid.*, 2.

²⁸ James D. Watkins, “The Maritime Strategy,” Supplement to *U.S. Naval Institute Proceedings* 112, no. 1 (January 1986): 4.

²⁹ Crickard, *Canadian Perspectives on Maritime Strategy*...5.

³⁰ Maritime Command, Directorate of Maritime Strategy, *Leadmark*..., 2.

³¹ Natural Resources Canada, “Facts About Canada’s Coastline,” http://gsc.nrcan.gc.ca/coast/facts_e.php ; Internet; accessed 27 January 2008.

According to Crickard, during the 1990s Canada's potential as a maritime state was seen as being deficient due in part to negligence on the part of the government in the formulation of a national maritime policy and strategy. There existed an oceans policy only within one department, the contingency planning capabilities were severely lacking and the maritime training and education system were in "disarray."³² Canada's historical naval policies have also been found wanting. History shows that Canadian naval policy has been reactive as shown in the rapid expansions of her naval forces during WWI and WWII as well as the Cold War, instead of being a vision of the country's future national interests.³³

In determining the size of Canada's Navy, the Government must take into account the "industrial capacity, financial strength, and the willingness of the country's political leadership to allocate sufficient resources for expansion and modernization."³⁴ Therefore although Canadian naval requirements must take into account both domestic and international considerations, it is the domestic policy that drives the "naval policy objectives."³⁵ In keeping with Canada's national values of democracy, freedom, human rights and the rule of law, this policy must not be limited to purely military/coercive roles, but must be expanded to the protection of Canada's domestic waters from exploitation from non-Canadians and support to OGDs to help combat illegal

³² Crickard, *Canadian Perspectives on Maritime Strategy...*, 8.

³³ *Ibid.*, 9.

³⁴ Vego, *Naval Strategy and Operations in Narrow Seas...*, 2.

³⁵ *Ibid.*, 2.

actions by Canadians.³⁶ Questions then arise as to how much surveillance and presence of our waters is enough to exact control, how much naval presence, or lack thereof, in northern waters is enough, and what level of cooperation should there be and what will be the division of responsibilities with respect to enforcement issues between the Department of Defence (DND) and Other Government Departments (OGD) such as Department of Fisheries and Oceans, Royal Canadian Mounted Police (RCMP), Transport Canada (TC), and the Canada Border Security Agency (CBSA).³⁷

Professor Rod Byers, a Canadian maritime scholar, has developed four criteria for a Canadian maritime strategy and where the priorities should lie. These are:

1. A maritime strategy should be created independently based on Canada's national interests;
2. Awareness must be increased within the government and general public of Canada's being a maritime nation with significant maritime interests;
3. Maritime power must be built for the maintenance of national and international security and the protection of sovereignty; and
4. A Canadian navy capable of operating multilaterally and unilaterally if necessary in a high threat environment.³⁸

These criteria are designed to provide the government with a broad spectrum of capabilities that encompass domestic constabulary tasks, diplomatic tasks, and the inevitable international stability operations.³⁹

³⁶ Governor General, *Strong Leadership. A Better Canada – Speech from the Throne*, (Ottawa: Canada Communications Group, 2007).

³⁷ Crickard, *Canadian Perspectives on Maritime Strategy...*, 9.

³⁸ Rod Byers, "An Independent Maritime Strategy for Canada," *Canadian Defence Quarterly* 18, no. 1 (Summer 1988): 24.

Following with Byers' third criteria, Koburger defines maritime power as "the ability to use the sea, in peace and war, commercially as well as militarily."⁴⁰ The ending of the Cold War, and the disappearance of a bi-polar world, has thrust Canada into a world where the threats and potential conflicts are more widely distributed throughout the international scene, demonstrating an increased requirement for maritime power. Commodore James King argues that since the end of the Cold War a more effective United Nations (UN) has emerged and as a result, although far from ideal, there are fewer east/west squabbles. The first Gulf War, the Global War on Terror, and blockades in the Adriatic and off Haiti, although not completely successful, demonstrated the potential of maritime forces in this new environment and the requirement to be able to not only operate in a multinational environment but also to command other nation's naval forces.⁴¹ If Canada wishes to remain, as the Fall 2007 *Speech from the Throne* indicated, "a credible player on the international stage" a naval fleet capable of contributing effectively in the likes of these international stability and security operations is imperative. This will go a long way in fulfilling her naval strategy, maritime strategy and ultimately her national security policy.⁴²

In order to be part of an effective maritime strategy, the Canadian naval strategy hinges on a blue water capability. Being somewhat unique in the "geographical and the geopolitical situation" in which Canada finds itself, it requires a navy that can not only operate in the three oceans that surround Canada, but also be capable of deploying

³⁹ Crickard, *Canadian Perspectives on Maritime Strategy...*, 10.

⁴⁰ Koburger, *Sea Power in the Twenty-First Century...*, 20.

⁴¹ King, "Internationalism and a Blue Water Navy"..., 271.

⁴² Governor General, *Strong Leadership. A Better Canada – Speech from the Throne...*

overseas in response to our international commitments.⁴³ Another issue is that although a navy's main *raison d'être* is as a tool of maritime force, the increasing and changing roles of a navy in the 21st century offer some unique challenges.⁴⁴ In the words of the American military strategist Bernard Brodie, "No valid conception of [naval] power can vary according to the psychology or culture of different nations. A concept of [naval] power is either correct and conforms with the realities of war, or it is wrong."⁴⁵ In other words, a navy must be created with the ability to fight its nation's battles. This combat capability that should be inherent in a navy also allows it to also be used in domestic roles. The reverse, however, does not hold true.⁴⁶ Couple this with the reality that the skills and equipment required during low intensity, good order domestic tasks vary greatly from those required for high intensity military operations, and one can easily see that the government must place a balance on what capabilities they require of their navy in order to effect their maritime strategy.⁴⁷

There are those who do not see the viability or usefulness of a Canadian Navy. Opponents to a capable and credible navy often use the Monroe Doctrine as a valid reason to abdicate our responsibility in the realm using the military to defend our

⁴³ Kevin L. Falk, *Why Nations Put to Sea...*, 267.

⁴⁴ Peter T. Haydon, *Sea Power and Maritime Strategy in the 21st Century : A "Medium" Power Perspective*. Maritime Security Occasional Papers. Vol. 10. (Halifax: Centre for Foreign Policy Studies, Dalhousie University, 2000), 36.

⁴⁵ Bernard Brodie, *Sea Power in the Machine Age* (Princeton: Princeton University Press, 1943): 115, quoted in Geoffrey Till, *Maritime Strategy and the Nuclear Age* (New York: St. Martin's Press, Inc., 1984), 11.

⁴⁶ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 16.

⁴⁷ Geoffrey Till, *Seapower : A Guide for the Twenty-First Century* (Portland: Frank Cass, 2004), 349.

sovereignty.⁴⁸ However, in the words of George E. Foster, the former Canadian Minister of the Marine in 1909, “the Monroe doctrine and the United States of America might guarantee our safety from foreign invasion but...the price we would have to pay would be continual demand, continual concession until at last absorption finished the craven course.”⁴⁹ If there is one constant of the Canadian public, it is its never ending quest to show the world that they are different from the stereotypical American. To relinquish the protection of Canadian sovereignty to the US is not palatable; however, US national security concerns would trump any apprehension of their impinging upon our sovereignty. As a demonstration of this, the US *National Security Strategy* (NSS) states that “if America’s nearest neighbors are not secure and stable, then America will be less secure,” and their further indications that, although it is preferable to act in concert with allies and like minded nations, they will act unilaterally if necessary.⁵⁰

In an effort to demonstrate Canada’s willingness and desire to take more of an active role in our national security, the Fall 2007 *Speech from the Throne* provided the Canadian public with the government’s commitment to modernizing the Canadian

⁴⁸ The Monroe Doctrine was coined from a speech in 1823 given by President James Monroe to Congress in which he articulated a new United States' policy towards the Americas. In short he proclaimed that the United States would view any conflict or war in the Americas as a hostile threat towards the United States' national security and would take whatever action is required. The actual speech to Congress can be found on the Library of Congress website, “A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774 – 1875.” <http://memory.loc.gov/cgi-bin/ampage?collId=llac&fileName=041/llac041.db&recNum=3>. A good article that further explores the relationship between Canada and the US in the context of the Monroe Doctrine was written by John Sloan Dickey, “Canada Independent,” *Foreign Affairs* 50, no. 4 (July 1972): 684-697.

⁴⁹Nicholas Tracy, “The Navy as an Instrument of Canadian Foreign Policy,” in *Maritime Forces in Global Security : Comparative Views of Maritime Strategy as we Approach the 21st Century*, ed. Ann Lynn Griffiths and Peter T. Haydon (Halifax: Centre for Foreign Policy Studies, Dalhousie University, 1995), 309.

⁵⁰ United States, Department of State, *The National Security Strategy of the United States of America* (Washington, DC: U.S. Government Printing Office, 2006), 37.

military such that it can “provide effective surveillance and protection for all our country, cooperate in the defence of North America, and meet our responsibilities abroad to the United Nations and our allies.”⁵¹ It further stated that “Canadians understand that our country has a responsibility to help countries struggling to make a better life for their people...” From this speech it is clear that there needs to be a balance between both domestic and international commitments. But how does one determine this balance?

The latest international policy statement issued by a Canadian government, *A Role of Pride and Influence in the World*, is very clear in its position that an unstable international community is a direct threat to the security of Canadians.⁵² It reaffirmed that the Canadian Forces would continue to help rebuild failed and failing states. It also noted that Canada’s military was globally respected in these situations and that their services would continue to be sought after by the international community.⁵³ In the document, Canada’s Naval Forces were supposed to be able to have two ships deployed overseas indefinitely, sustain the deployment abroad for six months of a four ship Task Group with the inherent ability to command either a national or multinational force, and deploy a second four ship Task Group on a follow on force to the first Task Group, or as separate Mission-Specific Task Force.⁵⁴ This policy statement gives the impression that

⁵¹ Govenor General, *Strong Leadership. A Better Canada – Speech from the Throne*, (Ottawa: Canada Communications Group, 2007).

⁵² This international policy statement was conceived by the Liberal Government under Prime Minister Paul Martin. As the current Conservative Government under Prime Minister Stephan Harper has yet to promulgate a new international policy statement, technically we are without one. However it would appear that the current government has continued along the same lines, maintaining many of the same priorities as were promulgated in the Liberal document.

⁵³ Privy council Office, *A Role of Pride and Influence in the World: Canada’s International Policy Statement-Overview* (Ottawa: Privy Council Office, 2004), 13.

⁵⁴ *Ibid.*, 30.

the government no longer has a *laissez faire* approach to its foreign policy, but more of an active approach with teeth.

According to Peter Haydon, the Canadian populace now appears to recognize a requirement for the Canadian government to pursue a foreign policy based on “active internationalism.”⁵⁵ This will require a global reach navy with the capability of going into harms way. Canadians would prefer that these undertakings occurred while working in a multinational coalition at the behest of the U.N., but they also recognize the U.N.’s limitations in dealing with significant crises, as occurred during Rwanda and Somalia, and are willing to take action outside of this framework if it is in accordance with our national values and or interests.⁵⁶

Countries, like Canada, who are heavily reliant on seaborne trade for survival, would be ignorant to dismiss the realities of the changing environment of the 21st century with respect to maritime security. Even our heavily dependant trade relationship with the United States could be affected by a maritime security issue or incident. One third of our trade to the U.S. and approximately 75% of our trade with other countries travels by sea.⁵⁷ Although nearly all of this trade happens on vessels not Canadian flagged, to dismiss the idea that it may be necessary to protect and defend these *non-Canadian* vessels would be naïve. As China and India emerge on the Global scene as rising

⁵⁵ Peter T. Haydon, “What Naval Capabilities does Canada Need?” In *Maritime Security in the Twenty-First Century: Maritime Security Occasional Paper no.11*, ed. Edward L. Tummers, 131-162 (Halifax: Dalhousie University, 2000), 134-135.

⁵⁶ *Ibid.*, 135.

⁵⁷ Marc Milner, “Whither the Navy?” In *Maritime Security in the Twenty-First Century: Maritime Security Occasional Paper no.11*, ed. Edward L. Tummers, 117-130 (Halifax: Dalhousie University, 2000), 124.

economical powerhouses, with both rising in prominence as a trading partner, we must be concerned and aware of the dangerous and/or potential threatening waterways through which goods bound for or from Canada transit, and be capable of ensuring their security.

From a domestic perspective, the size and capabilities of the navy should be in accordance with geographical and economical factors. The waters, to which Canada claims under its jurisdiction, including both TTW and EEZ, are immense. If we are not capable of controlling these waters, then “it can be seen as tacit acceptance that others can use those waters as they please and without regard or respect to the law.”⁵⁸

The oceans to a maritime state are important to its national wealth and therefore critical to its national security. Countries can protect their interests by either relying on international law, through naval capabilities or, more realistically, through a balance of the two. To completely rely on international law and regulations to protect your interests is both naïve and risky, and countries like Canada who have deep-rooted belief in the rule of law, and in other nations respect for these regulations, are continually surprised and taken aback by their actions as the “respect for the law is far from universal.”⁵⁹ Only a definitive national security policy coupled with corresponding maritime and naval strategies with the inherent capabilities to identify and then respond to a crisis will allow a country to “be sovereign at sea” and therefore have the ability to control those waters it claims as its own.⁶⁰

⁵⁸ Haydon, “What Naval Capabilities...”, 136-137.

⁵⁹ *Ibid.*, 137.

⁶⁰ *Ibid.*, 137.

Canada's willingness to be actively engaged in the international arena has been emphasized in both the International Policy statement and the Fall 2007 *Speech from the Throne*. In order to contribute to the security and stability of the global environment, Canada requires a navy that can force project. Canada's current fleet mix with her frigates, destroyers and soon to be Joint Support Ships gives her that capability. Canada's position in the world as a maritime nation with a considerable coast line requires significant maritime forces to exercise and maintain her sovereignty and protect her national interests in the domestic context. As will be discussed later, Canada's fleet mix is very inefficient and in some cases ineffective in the domestic environment. The incorporation of OPVs would provide the gap filler required for Canada to have a truly balanced fleet for both international and domestic contingencies.

NAVAL TASKS/MISSIONS

Once a nation has formed its naval strategy, various roles and functions will fall out describing what the naval forces are expected to achieve. Canada's naval strategy is formulated in its strategic vision document, *Leadmark*. As stated in *Leadmark*, the roles and functions of the Canadian Navy in the Twenty-First century are widely distributed across the spectrum of possible naval activity.⁶¹ These functions fit into the Military, Diplomatic or Constabulary roles and define what the Canadian government sees as the Navy's contribution to our maritime strategy. It is also important to recognize that there are some overlaps in the functions between the three roles. This section will discuss these functions in more depth and analyse how Canada's Navy currently operates to achieve these tasks.

As discussed in the previous chapter, the primary role of any navy is in its application of military power to achieve the political will of the government. In its basic arrangement the military roles deal with both the defence of national and allied commitments with the balance between domestic and international resulting from the country's national interests. The Navy must have the knowledge of what and who else is out there, air, surface and sub-surface, and then be able to coordinate various assets, be they an OGD or another nation's assets in a coalition environment, and then be able to mount an effective response to the perceived threat or the assigned mission. It therefore follows that Command and Control, surveillance, intelligence gathering and combat capability are the basic enablers that allow Canada's naval forces to undertake the

⁶¹ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 99.

military role. Coincidentally, these same capabilities also allow the navy to undertake the diplomatic and constabulary roles.

Using the modified Booth triangle for Canadian Naval roles and functions for the 21st century as found in *Leadmark*, and combining a third element in the degree of force employed from the Australian model, Figure 1 demonstrates a clear relationship between the roles, functions and the amount of force that may arise from those functions.⁶² The Navy needs to be able to transition from the benign/maintenance environment, to the coercive/enforcement environment and ultimately to the traditional military roles effortlessly and seamlessly in order to be a truly effective force. In order to do so, of course the proper assets (ships), trained personnel, and political will needs to be present.

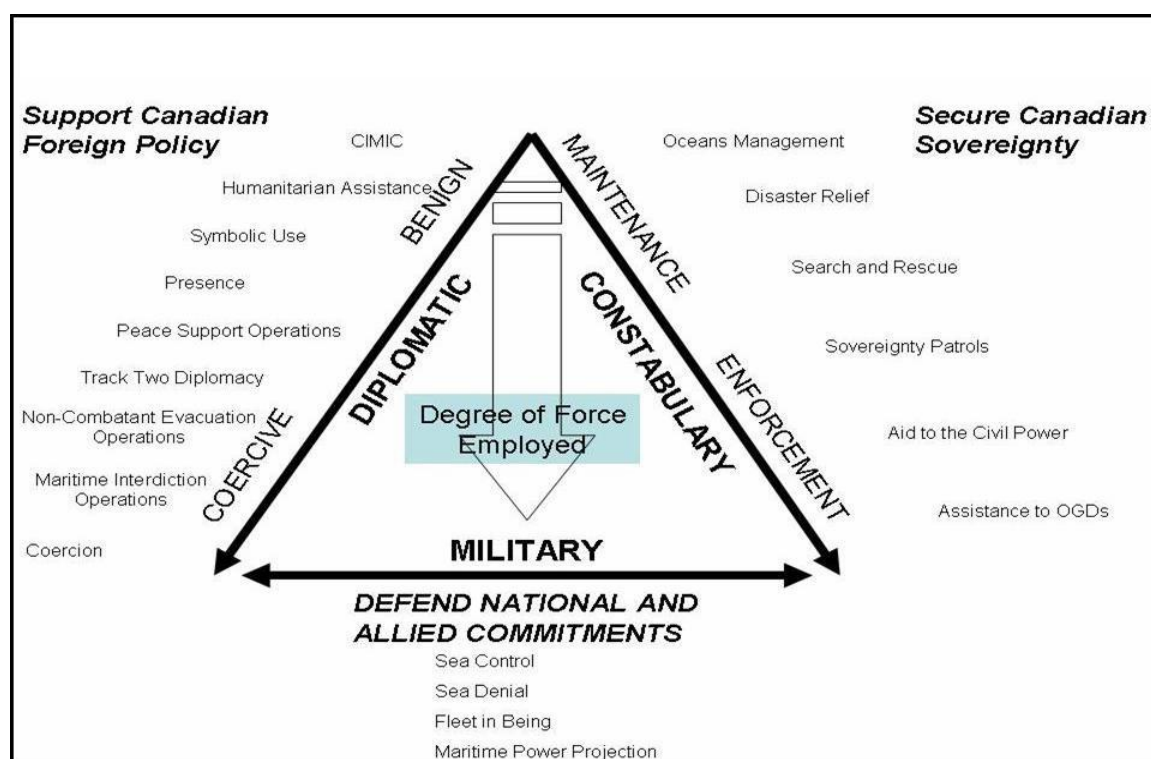


Figure 1 : Canadian Naval roles and functions for the 21st Century

Source: Maritime Command, Directorate of Maritime Strategy, *Leadmark: The Navy's Strategy for 2020, 99, and Bendle, "The Roles and Tasks of Maritime Forces,"* 86.

⁶² Vanessa Bendle, "The Roles and Tasks of Maritime Forces," in *Australian Maritime Issues 2005 – Papers in Australian Maritime Affairs No.16* (Canberra: Sea Power Centre – Australia, 2005), 86.

Without any of these three conditions, the navy is ineffective. An examination of these three roles in the context of how the Canadian Navy should position itself in any future endeavours will indicate those areas where the current fleet structure is inefficient or ineffective for the assigned tasks.

Military

The Canadian Navy's mission is "to generate and maintain combat-capable, multipurpose maritime forces to meet Canada's defence objectives."⁶³ In a domestic context, this means that the Navy must be able to defend Canada by maintaining our sovereignty in all three oceans, ensuring the security of our seaborne trade and our natural resources extending into and, in some cases, beyond our EEZ, and in the collective maritime defence of North America against attack.⁶⁴ From an international perspective it is in Canada's interest to contribute to global stability and security. Our maritime forces must be able to operate abroad in order to "further Canada's security interest, foster regional relationships and act with our key allies to deter potential adversaries – while providing an immediate national response for contingencies as they arise."⁶⁵ Where exactly these conflicts will occur and to what extent is unknown, but preparations for the various contingencies must carry on.

It has been predicted that future conflicts will most likely be "one of low intensity limited and sublimited war in narrow seas."⁶⁶ Various definitions of *narrow seas* exist,

⁶³ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 92.

⁶⁴ Chief of Maritime Staff, *Canadian Navy Strategic Communications Handbook* (Ottawa: Maritime Staff, 2008), 3.

⁶⁵ *Ibid.*, 4.

⁶⁶ Koburger, *Sea Power in the Twenty-First Century...*, 12.

but for this essay it will be defined as a body of water that is either an enclosed sea or a semi-enclosed sea. By enclosed sea we mean a body of water that “lies wholly within the continental shelf, that is, surrounded by a landmass, except for a strait or several straits that connect it to an ocean or another enclosed or semi-enclosed sea.”⁶⁷ A *semi-enclosed* sea is a body of water which “stretches contiguously with a continent and is linked with the open ocean by a broad entrance or by several passages between the islands of an insular line marking the boundary with the ocean.”⁶⁸ Examples of narrow seas are the Great Lakes, the South China Sea, the Mediterranean, the Red Sea and the Arabian Gulf.⁶⁹

Milan Vego, Professor of Operations at the US Naval War College, argues that third world countries in the vicinity of narrow seas are even more capable of challenging “established rules of international conduct,”⁷⁰ with small navies, or even without navies but with tried and true weapons such as mines. These countries have the ability to upset the important pattern of international trade which could have an adverse effect on a countries national security. Open hostilities in narrow seas differs greatly from those on the open ocean because of the limited room for manoeuvre and the proximity to a

⁶⁷ Milan N. Vego, *Naval Strategy and Operations in Narrow Seas* (Portland: Frank Cass Publishers, 1999), 5. The information in this essay from this point until the Diplomatic section has been based entirely from this source. All direct quotations have been directly cited, otherwise it can be assumed that the information and analysis is based on the reading of Vego’s book and capturing what is necessary for this paper.

⁶⁸ *Ibid.*, 5.

⁶⁹ To avoid confusion, narrow seas do not directly translate into the littorals. According to the US *Naval Doctrine Publication 1 – Naval Warfare*, the littorals are defined as “Those regions relating to or existing on a shore or coastal region, within direct control of and vulnerable to the striking power of naval expeditionary forces.” By contrast a narrow sea will have littorals; however they include a larger maritime geographical area. Surface vessels operating in narrow seas are susceptible to not only other naval vessels, but also land based aircraft and land based surface to surface missile sites.

⁷⁰ Vego, *Naval Strategy and Operations in Narrow Seas...*, 15.

landmass. Technological advances in missiles and sensors result in battles conducted in narrow seas to be extremely intense right from the onset of hostilities as both sides try to gain the advantage. Air power in a narrow seas environment, particularly land based air power, can be the decisive factor in the final assessment due to its inherent mobility and degree of readiness. In order to be truly effective, air power must be directed at the correct targets and then sustained until the enemy is destroyed. It is imperative that the surface fleets not be given the chance to regroup between attacks.

A blue water navy could find itself in quite a quandary when operating in narrow seas. A state within the narrow sea with a much smaller navy could easily contest the larger navy's command or control of the sea with very little assets or effort. Proximity to land gives the smaller state the opportunity to use both land based anti-ship missiles and aircraft as well as small surface combatants and mines in order to contest the vessels of blue water navy.

For these reasons a completely different fleet is required for operating in narrow seas than that required on the open ocean. A state should avoid using "large, high capability and high cost ships for routine tasks that can be carried out more effectively and more cheaply by smaller, less capable but less costly ships."⁷¹ For controlling the sea, surface combatants offer a distinct advantage over aircraft as they are capable of sustained and continuous operations. Surface groups should be a combination of combatants whose displacements do not exceed 2000 tons.⁷² These craft can range from light frigates, corvettes, to OPVs. The advantage of these types of ships lies in their

⁷¹ *Ibid.*, 297.

⁷² *Ibid.*, 299.

flexibility of design, and the ability to fit both offensive and defensive weapons aboard. The OPVs, although usually not as fast as the other two types, are built for sea-keeping and independent operations. Although usually fitted for but not with stronger armament and sensors, the ability to switch out is there.⁷³ During peacetime, the fiscal restraints for most nations will probably preclude a nation from building a completely balanced fleet capable of both blue water and narrow seas operations. It would, however, be beneficial to build a few of the specially designed vessels in order to develop doctrine and test tactical theories prior to open conflict. Without these small combatants during peacetime, “a blue-water navy may not be mentally prepared to conduct combat in narrow seas nor may an integrated operational and tactical naval doctrine have been written.”⁷⁴

Once again, if Canada wishes to remain relevant on the world stage, and be effective in future international stability and security missions, operations in narrow seas must be taken into account. While Canada’s current fleet mix does not preclude operating in narrow seas, for the reasons stated above the frigates and destroyers are far from an effective and efficient use of resources. As well, our Maritime Coastal Defence Vessels (MCDVs), as will be demonstrated in a later chapter, are no where near adequate for the types of tasks and missions envisioned in this environment. However, the incorporation of OPVs would go a long way in providing a cost effective platform for narrow seas operations.

⁷³ To “switch out” is a term used to describe a capability for a ship to change its configuration of weapons and or sensors with minimal effort. One might also hear the term “fitted for but not with” indicating that the general support and physical infrastructure is there for a piece of equipment; however the equipment has not been procured or fitted.

⁷⁴ *Ibid.*, 300.

Diplomatic

In the words of former U.N. Secretary-General Kofi Annan, “You can do a lot with diplomacy, but with diplomacy backed up by force you can get a lot more done.”⁷⁵ According to Dr. Du Plessis of the University of Pretoria Institute for Strategic Studies, a naval force can, by its very nature, have an intrinsic capability to coerce and influence an adversary. At the same time the flexibility inherent in this force can be applied in peaceful situations in order to meet political aims.⁷⁶ Naval diplomacy has been effectively used as a means to support a countries foreign policy, without having to resort to war.⁷⁷ Taken from Geoffrey Till in *Seapower: A Guide for the 21st Century*, Figure 2 shows that Naval diplomacy is a subset of both humanitarian and expeditionary operations and ultimately involves presence. Without presence, it is almost impossible for the navy to conduct coercion, picture building or coalition building.⁷⁸ Without presence, any of the functions shown at Figure 1 can no longer be achieved by the navy.

⁷⁵ United Nations, “Press Release SG/SM/6470 - Transcript of Press Conference by Secretary-General Kofi Annan at United Nations Headquarters, 24 February 1998,” <http://www.un.org/News/Press/docs/1998/19980224.SGSM6470.html>; Internet; accessed 26 February 2008.

⁷⁶ A. Du Plessis, *South Africa and the South Atlantic Ocean: A Maritime-Strategic Analysis* (Pretoria: University of Pretoria, 1987), 6.

⁷⁷ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 36.

⁷⁸ Till, *Seapower : A Guide for the Twenty-First Century...*, 276.

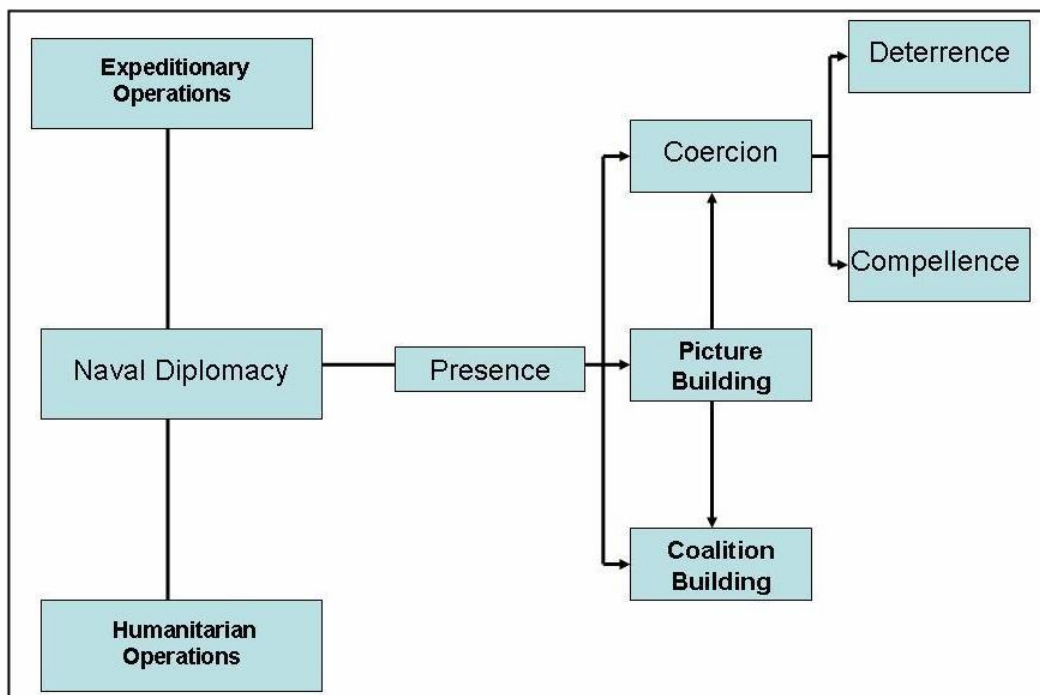


Figure 2: Naval Diplomacy – The Components

Source: Till, *Seapower: A Guide for the Twenty-First Century*, 276.

As shown in Figure 2, naval diplomacy is a set of maritime activities that covers a wide spectrum of tasks and possible eventualities. The ultimate objective is to influence the behaviour of others through actions which, in the words of Geoffrey Till, “ranges from limited compellent military attack at one extreme, through deterrence to thoroughly amicable cooperation at the other.”⁷⁹ He goes on to describe the tasks inherent in naval diplomacy. Simply put, these tasks require an accurate picture; sufficient offensive and defensive power; force tailored to the circumstance, which includes both ships suited for the task and commanders with political understanding; a speedy response in order to be able to react and quell the situation before it arises; controllability in their ability to maintain their composure in order to achieve the political aim; and the ability to manage

⁷⁹ Till, *SeaPower: A Guide for the Twenty-First Century...*, 303.

the media effectively.⁸⁰ As for individual platforms, they must be flexible in order to be able to deal with the myriad of contingencies that they may face; they must have both offensive and defensive capabilities and must be able to defend themselves in such a way as to not jeopardize the mission; they must be both affordable and capable; they must be able to act individually or as part of a larger task group or coalition; and the personnel need to be properly trained for the mission.⁸¹

There are many examples of the Canadian Navy conducting humanitarian operations (Hurricane Katrina relief) as well as Maritime Interdiction Operations (Operation Sharp Guard and Apollo) but the most recent example of a Canadian ship conducting coercive operations or “the use of force, or the threat of force to persuade an opponent to adopt a certain pattern of behaviour against their wishes” occurred during Operation Allied Force. During this campaign, the Canadian destroyer ATHABASKAN was flagship for NATO’s Standing Naval Force Atlantic (SNFL). Senior NATO leadership decided to relocate SNFL into the Adriatic in order to keep Serbian naval vessels in port. While conducting Sea Control operations, SNFL maintained a coercive stance, in that the Serbian understood that if they sailed their vessels out of the safety of their ports, they would be sunk. This then allowed other naval units to operate unmolested and able to launch strikes into Kosovo without fear of attacks or harassment from the Serbian Navy.⁸²

⁸⁰ *Ibid.*, 306.

⁸¹ *Ibid.*, 307-308.

⁸² David Morse, and Douglas Thomas, “STANAVFORLANT Under Canadian Command,” *Canadian Military Journal* 1, no.2 (Summer 2000): 61.

Constabulary

Neither the Canadian Coast Guard nor RCMP are capably armed or equipped to enforce Canadian law to the extent required in the maritime environment. Therefore the Navy is used in a constabulary role to support their endeavours. The various functions that the Navy is called upon to support include sovereignty patrols, aid to the civil power,⁸³ assistance to OGDs, search and rescue (SAR), disaster relief and oceans management.⁸⁴ For the most part, each of these functions can be conducted effectively from the navy's current platforms, however not efficiently.

Sovereignty patrols are in effect, "the exercising and routine operating" in areas under national jurisdiction in order to affirm national interest and deter those that would contest the state's proclaimed jurisdiction.⁸⁵ Although Canada, as stated earlier, has very few if any direct military threats contesting its sovereignty, sovereignty patrols are, in the words of Rear Admiral J.R. Hill RN, a "Demonstration of Right."⁸⁶ He goes on to describe that these domestic diplomatic demonstrations "can often be achieved simply by Being There, and always by both Being There and Doing Something."⁸⁷ The *doing something* in the case of a sovereignty patrol could be as little as contributing to the Recognized Maritime Picture (RMP), or according to Peter Haydon, "know[ing] who is

⁸³ Aid to the civil power occurs when the military is called upon to support provincial or municipal authorities, to maintain or restore law and order where it is beyond the power of civil authorities to do so. Examples in the past where the military has provided aid to the civil power were the Oka crisis in 1990 and the Manitoba floods of 1997.

⁸⁴ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 40-41.

⁸⁵ *Ibid.*, 40.

⁸⁶ Rear Admiral J.R. Hill, *Maritime Strategy for Medium Powers* (London: Croom Helm Ltd., 1986), 115.

⁸⁷ *Ibid.*, 116.

using [our] waters and for what purpose.”⁸⁸ The general public, and more specifically those that live in and around the maritime environment, will be comforted in the fact that their naval forces are operating in their vicinity and are capable of reacting to any unforeseen situation that may threaten not only their personnel safety but their national values and interests.

Canada’s vast coastline makes this task an onerous one. Although the navy has endeavoured to get more visibility for the fleet amongst the general population, geography and operations preclude this from happening to the extent wished for. The MCDVs conduct sovereignty patrols as part of their mandate.⁸⁹ However their limited equipment fit and slow speed does not allow for a quick reaction to an incident unless it happens close by. Frigates and destroyers are too large to call in any but the largest ports and harbours and with refuelling stops limited their area of operations is limited unless supported by a refuelling ship. Recent announcements by the Canadian government, including the acquisition of Arctic patrol vessels and the creation of a deepwater “Arctic Docking and Refuelling Facility,” will extend the navy’s operating range in those relatively ice free areas of the Canadian Arctic, areas that have seen very few sovereignty patrols by its navy.⁹⁰

⁸⁸ Peter T. Haydon, “Canada’s Navy: A Good Workable Little Fleet?” *Canadian Naval Review* 1, no.1 (Spring 2005):13.

⁸⁹ Canadian Navy, “The Naval Reserves,” http://www.navy.forces.gc.ca/cms_careers/careers_articles_e.asp?id=462; Internet; accessed 18 March 2008.

⁹⁰ Office of the Prime Minister, “Prime Minister announces expansion of Canadian Forces facilities and operations in the Arctic,” <http://www.pm.gc.ca/eng/media.asp?category=1&id=1784> ; Internet; accessed 27 January 2008. It has yet to be shown how the Navy plans on incorporating the new Arctic patrol vessels into fleet operations or to what capabilities beyond first year ice navigation they will have. It is easy to envision their use in Arctic waters during the navigable months, and then shifting to either Atlantic or Pacific operations during the remainder of the season. What other capabilities they come with will determine their suitability for operations as envisioned for an OPV.

Assistance to OGDs is a large commitment by the Navy. Memorandum of Understandings (MOUs) with various departments, including the RCMP and Department of Fisheries and Oceans create a ready use framework from which the different departments can draw upon for interagency operations. The majority of work with the RCMP has to do with counter drug operations. For example, in May of 2006, at the request of the RCMP, the navy provided the frigate HMCS FREDERICTON to assist in a major drug seizure off the coast of Africa. The navy provided the escort and storage facility for the 225 tonnes of hashish as it was transported back to Canada where a sting operation netted the arrest of individuals in Nova Scotia.⁹¹ The latest MOU for counter drug operations, signed July 4, 2007, stipulates that the Canadian Forces personnel “will act in a support role in relation to the RCMP, and only provide assistance where there is neither the intention nor significant probability that CF personnel will be used to directly apprehend, arrest or detain suspects.”⁹² So it is clear from both sides that the CF and therefore the Navy will be the supporting element in any operation with the RCMP. The frigate also was the right asset to be supplied to the RCMP based on where the seizure occurred. But what about drug busts that happen closer to home, in our territorial water? A frigate, due to its size, may not be the most capable vessel to use. Although our naval reserves operating the MCDVs have conducted operations with the RCMP, the MCDVs are too slow to be responsive in a crisis situation and lack the ability to conduct helicopter operations. As we have nothing in between, it will most likely have to remain, for the near future, the frigate that gets the call, a clear inefficient use of this resource.

⁹¹ Sarah Gilmour, “Drug Seizure at Sea,” *The Maple Leaf*, June 28, 2006, 10.

⁹² Department of National Defence, *Memorandum of Understanding Between the Canadian Forces and the Royal Canadian Mounted Police* (Ottawa: 2007), 9.

Given the three roles of a naval force, the state must choose which functions their navy should be able to achieve. Given the first chapter's conclusion that Canada requires a naval force with blue water capability, coupled with this chapter's view of the various roles and functions of a navy, it is clear that Canada requires a navy whose capabilities span a wide spectrum of military, diplomatic and constabulary tasks. Again, weaknesses in her current fleet mix, underline the requirement to fill the effectiveness and efficiency gaps with a new capability.

OTHER COUNTRIES' SOLUTIONS

In order to better understand the various nuances involved in developing the proper fleet composition for Canada, it is useful to examine the trends and experiences of other countries in order to better understand this global trend towards smaller OPVs. In this section, the current and future plans for naval development in support of the individual National Security claims for the United States, the United Kingdom, Australia and Denmark, as they relate to the acquisition of various OPVs, will be examined. Although both the US and UK naval forces are much larger than Canada's, their challenges in supporting their policies remains the same.

Australia

The Royal Australian Navy (RAN) currently possesses a mix of fourteen destroyer and frigates, Adelaide and Anzac classes, all capable of carrying helicopters, a key force enabler, particularly for surface and undersea warfare. The Australian Chief of the Navy argues that "Destroyers and frigates represent the minimum size of surface combatant which possess surveillance and combat capabilities in all three primary warfare areas (air, surface and undersea) and which are capable of sustained independent operations."⁹³ As in any medium power navy, these vessels represent the key elements in any task group and their flexibility and versatility enable them to be the ideal first responder to a global event where there is a significant maritime component.⁹⁴ The impact of globalization and the speed at which it is advancing had an impact on Australia as seen in the 2003 and 2005 defence update documents, as well as the navy's strategic

⁹³Chief of Navy, *Australian Maritime Doctrine – RAN Doctrine I-2000* (Canberra: Sea Power Centre – Australia, 2000), 96.

⁹⁴ *Ibid.*, 96

vision document *Plan Blue 2006*.⁹⁵ It has become more evident to the Australian Government that the Australian Defence Force (ADF), in following the capability development principles outlined in *Defence 2000*, must be able to conduct effective operations at great distances from Australia in order to protect their national interests. As a result they are maintaining both a blue water navy with expeditionary capability, and at the same time, OPVs. This will give them the ability to respond to maritime crises spanning from smuggling and fisheries violations to humanitarian assistance and global security to terrorism and high level threats.⁹⁶ Using these various strategic vision documents as well as *Australia's Oceans Policy* and *The Navy Contribution to Australian Maritime Operations* it will be shown how they have incorporated the OPV platform into their plans spanning the spectrum of naval operations.

Australia's Oceans Policy, promulgated in 1998, provides the “coherent, strategic planning and management framework capable of dealing with the complex issues confronting the long term future of our oceans.”⁹⁷ It is broken up into two parts; the first sets up the planning and management system; the second, *Specific Sectoral Measures*, outlines those measures that are in force or planned by Australian government. It

⁹⁵ The Australian defence updates of 2003 and 2005 were developed to build upon their 2000 White Paper on Defence, keeping their strategic plan for their military on track. *Plan Blue 2006* uses the defence updates as political direction from which the Australian Chief of the Navy fashioned his strategic guidance for the future development of the RAN. Included are examinations of the key issues surrounding the future security environment, organisational environment, Future Maritime Operating Concept (FMOC), and future capability requirements (people and equipment). Acknowledging that the RAN is a key element of their joint forces, *Plan Blue 2006* will arm the government with an important tool in the defence of their country.

⁹⁶ Australian Defence Force, *Australia's National Security – A Defence Update 2005* (Canberra: Defence Publishing Service, 2005), 26.

⁹⁷ Chief of Navy, *Australia's Oceans Policy : Caring, Understanding, Using Wisely* (Canberra: Environment Australia, 1998), 1.

recognizes the requirement for coordination between the national, State and Territory Governments as the jurisdictional and management responsibilities cross all levels of government.⁹⁸

In support of this policy, the ADF's key areas of responsibility involve:

- 1) Preparedness and contingency planning;
- 2) Maritime surveillance and response;
- 3) Fisheries law enforcement;
- 4) Search and Rescue;
- 5) Hydrographic services; and
- 6) The Australian Oceanographic Data Centre (AODC).⁹⁹

Clearly these tasks are indicative of the constabulary role of the navy. It is significant at this point to emphasize that the Australian's do not have a coast guard. As a medium power navy, with a relatively small population, the economics do not support the maintenance of a separate organization to carry out those tasks in the constabulary realm. The ADF and more specifically the RAN will continue to improve their maritime interdiction capability and contribute fully to both the National Surveillance Program and to fisheries enforcement duties. It also stipulates that the RAN is to make "cost-effective investments in the defensive and offensive capabilities of our present fleet of surface combatants."¹⁰⁰ This statement will be further examined shortly.

In *Defence 2000* it lays out Australia's highest strategic priority to be those events/crises originating closest to Australia. It recognizes that there will be events that occur at great distances to Australia that have a direct impact on their National Security, but focuses more on the likelihood that those events that occur closer to Australia will

⁹⁸ *Ibid.*, 3.

⁹⁹ Chief of Navy, *Australia's Oceans Policy : Caring, Understanding, Using Wisely- Specific Sectoral Measures*, (Canberra: Environment Australia, 1998), 37.

¹⁰⁰ *Ibid.*, 38.

likely have the most effect on security and on the ADF's ability to achieve the required effect. In general there are five strategic objectives, compared to Canada's three. As indicated above, the first is the defence of Australia. The others, in order, are: the security of the immediate area surrounding Australia including neighbouring countries; the promotion of stability and cooperation of Southeast Asia; maintenance of stability in the Asia Pacific region; in cooperation with the UN, the security of the global community.¹⁰¹

From these priorities, *Defence 2000* goes on to describe that the ADF will be developed in accordance with the following principles: operational flexibility, integrated capability, interoperability, fully developed capability, capability edge, operational concurrency, sustainment, technology focus and cost effectiveness.¹⁰² These principles will guide the force structure in order to be able to conduct operations across the spectrum as defined in the strategic priorities.

The Navy Contribution to Australian Maritime Operations further expands on those requirements laid out in the aforementioned documents by assigning platforms to the various real and potential tasks designated to the RAN. It maintains their requirement for a blue water navy to be able to meet the government's expectations to conduct operations globally in both the littoral and open-ocean environments.¹⁰³ As part of the constabulary role for the navy, it is recognized that the major surface combatants will continue to have a part to play in the enforcement of environmental, fisheries,

¹⁰¹ Australian Defence Force, *Defence 2000 : Our Future Defence Force* (Canberra: Defence Publishing Service, 2000), 30-31.

¹⁰² *Ibid.*, 54-57.

¹⁰³ Chief of Navy, *The Navy Contribution to Australian Maritime Operations- RAN Doctrine 2-2005* (Canberra: Sea Power Centre – Australia, 2005), 88.

immigration and quarantine laws. Diplomatically, it is also understood that the visual image of a major surface combatant is a “potent symbol of maritime power”.¹⁰⁴

Spanning the complete spectrum of maritime roles, Patrol boats in the RAN have key military, constabulary and diplomatic tasks. Although limited in their ability to conduct war fighting in comparison to their bigger frigate and destroyer sisters, the new *Armidale* class patrol boat (ACPB) has distinct advantages over the patrol boats it replaced. The ACPB has increased operating range, greater sea keeping capability, improved weapons, sensors and communications fit and an improved maritime interdiction capability.¹⁰⁵

The ACPBs provide the Australian government with a platform that is extremely capable in conducting constabulary roles. They are used to maintain Australia’s sovereignty by enforcing maritime legislation, environmental and resource management and protection, prevention of illegal immigration, quarantine operations, aid to civil powers, support to OGDs in response to drug and arms interdiction, and peace operations for communities or states affected by conflict.¹⁰⁶ From a diplomatic standpoint, the ACPB is used to conduct natural disaster relief, defence force assistance to allied and friendly navies, and presence.¹⁰⁷

Although the ACPB is Australia’s primary surface vessel to support the OGDs with respect to civil law enforcement and coastal surveillance, its capabilities allow it to

¹⁰⁴ *Ibid.*, 88-89. In this essay, a major surface combatant is defined as a frigate, destroyer, or amphibious ship capable of conducting operations in multiple maritime roles against air, surface and subsurface threats, and land targets.

¹⁰⁵ *Ibid.*, 136.

¹⁰⁶ *Ibid.*, 138.

¹⁰⁷ *Ibid.*, 139-140.

be incorporated into a larger naval task group. The ACPB fits the bill as a *cost-effective* platform for conducting surface and electronic surveillance, interdiction and boardings in littoral environments.¹⁰⁸ This is aligned with the requirements laid out previously in the *Oceans* policy and the *Defence 2000* white paper. As a benefit in operating in *narrow seas*, the ACPB can be used to insert Special Operations Forces (SOF), provide major surface forces reporting and targeting information for offensive strikes, and act as advanced pickets in choke points and the littoral environment.

Limitations with the ACPB revolve around its small size. At only 270 tonnes and a length of just under 57m, the ACPB is only capable of operating in a sea states up to 5 (wave heights of 4m). A complement of only 21 will affect the amount of high tempo operations the ship can carry out before having to stand down for crew rest. The 25mm naval stabilized deck gun is not effective in a high threat environment against the new sea skimming anti ship missiles and therefore would require the babysitting services of its bigger sisters, either frigate or destroyer, to enhance its self-defence capabilities.¹⁰⁹

Despite these limitations, the ACPB is a very capable vessel that is also very cost-effective. The acquisition of these vessels has increased the ability for the RAN to conduct sovereignty operations, ensuring the ocean approaches are properly surveilled and defended, while releasing the major surface combatants from those tasks better suited to a smaller vessel.¹¹⁰ As an OPV, the ACPB is clearly capable of filling the gaps as a more effective and efficient platform.

¹⁰⁸ *Ibid.*, 136.

¹⁰⁹ Royal Australian Navy, "Armidale Class Patrol Boats," <http://www.navy.gov.au/fleet/patrol/>; Internet; accessed 16 February 2008.

¹¹⁰ Royal Australian Navy, "Welcome to the Armidale Class," http://www.navy.gov.au/spc/semaphore/issue4_2006.html; Internet; accessed 16 February 2008.

United States

The United States, although its armed forces are considerably larger than Canada's, does share some significant common ground in the way it is structuring its various forces. The US *National Security Strategy* (NSS) is a very forward leaning document that promotes security, not just within its territorial waters, but globally. It also demonstrates that they can not revert to an isolationist mode if they want to achieve peace, security and prosperity.¹¹¹

Based on this National Security Strategy, the US Department of Defense published *The National Defense Strategy of the United States of America* in which it promotes a concept of active defense. They believe that the most effective use of their military strength is to engage the most significant and dangerous threats to the United States early and away from home soil.¹¹² Their defense of the homeland contribution is primarily the "ability to identify and defeat threats abroad – before they can strike."¹¹³ These statements and strategies do not mean that the US is completely forward leaning, concentrating its forces in far off lands at the detriment to its own coastal security. The capacity of the US allows for its maritime security to be devolved down to three major military services: The US Navy, the US Marine Corps, and the US Coast Guard (Sea Services). The US Navy and Marine Corps, although they can be used in unique and specific cases domestically, are the forward leaning arm of the NSS. The US Coast

¹¹¹ United States, Department of State, *The National Security Strategy of the United States...*, 49.

¹¹² United States, Department of Defense, *The National Defense Strategy of the United States of America* (Washington, DC: U.S. Government Printing Office, 2005), 11-12.

¹¹³ *Ibid.*, 20.

Guard on the other hand, although it has been used in a force projection role, is responsible mainly to the coastal defense of the US and its EEZ.

In order to satisfy their forward leaning strategy, the US will always have a blue water navy comprised of aircraft carriers, destroyers and frigates to enable them to do the force projection piece in order to protect their varied, global national interests. Their doctrine states that their reason for being is

to promote and defend our national interests by maintaining maritime superiority, contributing to regional stability, conducting operations on and from the sea, seizing or defending advanced naval bases, and conducting such land operations as may be essential to the prosecution of naval campaigns.¹¹⁴

These roles are very military centric, and work for the United States because of their enormous capacity and capabilities and their role as the world's remaining superpower. Although the US Navy is considered the only Rank 1, major global force projection navy in the world, the US government is seeing the utility of smaller vessels to take on their increasing roles in maritime security. The Sea Services have recognized, as did Linton Brooks, former Director of U.S. Naval Intelligence, that the days of single focus land, air and sea strategies are over.¹¹⁵ In their recent publication, *A Cooperative Strategy for 21st Century Seapower*, the Sea Services have, for the first time, united to develop an integrated maritime strategy. This arrangement of all three services will allow the US government to deploy forces that are capable of acting across the full spectrum of military actions “to secure the United States from direct attack; to secure strategic access and retain global freedom of action; strengthen existing and emerging alliances and

¹¹⁴ United States, Department of the Navy, *Naval Doctrine Publication 1 – Naval Warfare*. (Washington, DC: U.S. Government Printing Office, 1994), 15.

¹¹⁵ Linton F. Brooks, “Naval Power and National Security.” In *Naval Strategy and National Security*, ed. Steven E. Miller and Stephan Van Evera, 16-46 (Princeton: Princeton University Press, 1988), 17.

partnerships and establish favourable security conditions.”¹¹⁶ They recognize that the future threats do not just rest with terrorism, but also in the enormous potential for conflicts to arise from an increasing reliance on natural resource extraction on and below the oceans as well as the potential for new and varied shipping routes that may arise due to the effects of climate change. As in the previously discussed strategies, this cooperative strategy also enforces the importance of identifying and defeating threats as far away as possible. However, it also describes the responsibility of the Sea Services to be able to quickly respond to approaching threats to their coastline and to be able to integrate with the Army, Air Force, OGDs and international partners in order to ensure America’s security.¹¹⁷

This new relationship between the Sea Services goes a long way in tearing down the barriers between the services in providing defence to the homeland, removing the indeterminate geographical boundaries. This cooperative strategy stipulates that both services must be capable and willing to defend the US regardless of the geographical location. As an example, the US Coast guard must now be able to integrate into a joint task force anywhere in the world, and likewise, the navy must be able to operate closer to home, in support of OGDs and the Coast Guard in their efforts to directly defend America.¹¹⁸ The Coast Guard has, in fact, responded to this by providing to the Navy cutters to conduct Maritime Interdiction Operations (MIO) and other essential tasks to all

¹¹⁶ United States, Department of the Navy and US Coast Guard, *A Cooperative Strategy for 21st Century Seapower* (Washington, DC: U.S. Government Printing Office, 2007), 3.

¹¹⁷ *Ibid.*, 8-9.

¹¹⁸ *Ibid.*, 13.

three forward operating fleets. They have also provided vessels and personnel in support of NATO's operations during the Kosovo crisis.¹¹⁹

As well as integrating with the US Navy and conducting operations far from home, the US Coast Guard acts as a military, policing and multi-mission service securing America's 95,000 miles of coast line and 3.4 million square miles of ocean.¹²⁰ They have been charged with various maritime security challenges, including counter-terrorism, search and rescue, maritime mobility, interdiction of drug and refugee smugglers, fisheries enforcement and protection of the maritime environment.¹²¹

The US Coast Guard, however, is suffering from years of neglect and its fleet is in the process of being rejuvenated. To address the declining state of the Coast Guard, an Acquisition Directorate (CG-9) was created. This organization's main focus is to create an acquisition process that is effective and efficient. The largest process that they have taken over is the Integrated Deepwater System (IDS). IDS is a series of modernization and recapitalization projects that will provide the Coast Guard with enhanced abilities to "detect, identify and respond to all activities in the maritime environment, as well as the improved ability to intercept, engage and deter those activities that pose a direct challenge to U.S. sovereignty and security."¹²²

¹¹⁹ United States Coast Guard, "National Defense," <http://www.uscg.mil/top/missions/Defense.asp>; Internet; accessed 18 February 2008.

¹²⁰ United States Coast Guard, "Integrated Deepwater System," <http://www.uscg.mil/acquisition/deepwater/default.asp>; Internet; accessed 18 February 2008.

¹²¹ United States Coast Guard, "Missions," <http://www.uscg.mil/top/missions>; Internet; accessed 18 February 2008.

¹²² *Ibid.*

Although the IDS is a comprehensive approach to updating the US Coast Guard's assets in the surface, air and C4IT realms, only the surface assets will be examined here. Two major surface assets will be acquired: the National Security Cutter (NSC), and the Offshore Patrol Cutter (OPC). The NSC, with a length of 418ft and a crew size of 148, is comparable to a corvette or frigate sized vessel. Its capabilities will allow it to conduct full spectrum operations in maritime homeland security, law enforcement and national defence missions.¹²³ Its command and control capabilities will allow the Coast Guard to coordinate "the wide span of forces brought to bear by Defense, Department of Homeland Security (DHS) partners, Federal, state, local government and other organizations in the maritime environment."¹²⁴

The OPC, by comparison, is only 320 feet long and will have a crew size between 16 and 75 personnel. This vessel fits the bill as an OPV in both size and capabilities. It will have sufficient armament and sensors, including a helicopter, to enable it to respond to varying threats across the military, constabulary and diplomatic spectrums. Because of the diverse environments within which the Coast Guard may find itself operating, these vessels are designed to allow operations, including MIO and SAR in high sea states.¹²⁵

The U.S. Sea Service's new agreement in cooperation, coupled with the Coast Guard's renewed acquisition plan, have placed them in an envious position of having an enormous capability and capacity for dealing with situations spanning the full spectrum

¹²³ United States Coast Guard, "National Security Cutter," <http://www.uscg.mil/acquisition/nsc/features.asp>; Internet; accessed 18 February 2008.

¹²⁴ United States Coast Guard, Acquisition Directorate, *Blueprint for Acquisition Reform* (Washington, DC: U.S. Government Printing Office, 2007), 2-1.

¹²⁵ United States Coast Guard. "Offshore Patrol Cutter." <http://www.uscg.mil/acquisition/opc/features.asp>; Internet; accessed 18 February 2008.

of foreseeable taskings. The inclusion of smaller modern corvette and OPV class vessels has provided the U.S. government with a force that otherwise would not have been as effective in dealing with those threats and situations that will arise in the three roles of a maritime force.

United Kingdom

The British maritime forces are characterized as a Rank 2, major global force projection navy (partial).¹²⁶ Britain is a maritime nation that not only has significant interests in offshore fisheries, oil and gas, but also relies on the oceans to carry 95% of her trade.¹²⁷ Despite this reliance, in the First Sea Lord Admiral Sir Jonathon Band's Mountbatten lecture to the University of Edinburgh, he acknowledged that, like other maritime nations, their populace has little understanding of the requirement for a navy. He further underlines the importance for the uninterrupted and secure flow of global maritime trade to Britain's survival as they "no longer have the capacity to survive without the materials and products [they] import so the impact of disrupting the flow of trade could be potentially catastrophic..."¹²⁸ The speech then goes on to describe the events that led to the restructuring of their armed forces.

The restructuring of the British Armed forces began with *The Strategic Defence Review (SDR)* of 1998. This document stated that the security of Britain was dependant

¹²⁶ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 44.

¹²⁷ Royal Navy, "Future Maritime Operational Concept," <http://www.royal-navy.mod.uk/upload/pdf/FMOC.pdf>; Internet; accessed 24 February 2008, 8.

¹²⁸ Royal Navy. "UK Maritime Power in a Global Context – University of Edinburgh – Mountbatten Lecture 23 Feb 06." <http://www.royalnavy.mod.uk/server/show/ConWebDoc.5019>; Internet; accessed 24 February 2008.

on “international stability, freedom and economic development.”¹²⁹ The downsizing of their forces, from 306,000 to 226,000 between 1990 and 1996, led them to reorganize their forces into a more mobile reaction force, with greater reliance and emphasis on the expeditionary role. The SDR acknowledged the unlikely requirement for British forces to fight a protracted all-out war in Europe, and instead stated that Britain’s security may result from maintaining or creating stability elsewhere in the world.¹³⁰ *The New Chapter to the Strategic Defence Review*, released in 2003, placed further emphasis on the ideal that it is better “to engage the enemy, where possible, at longer ranges (i.e. away from the UK itself)...”¹³¹ This then gives the Royal Navy the credence to maintain their rank 2 status, and also allows for

Recent strategic documentation within the Royal Navy, outline the future development of their “Versatile Maritime Force” (VMF) as a result of the government’s expectations with respect to the strategic effects this force will be able to achieve. It is envisioned that their VMF will have five core maritime roles: Maritime Force Projection, Theatre Entry, Flexible Global Reach, UK Maritime Security, and Networked C4ISR. The first three deal with an expeditionary capability that will be used to defend their national interests and security abroad, while the fourth deals directly with the “maritime contribution to Standing Home Commitments”.¹³² The networked C4ISR role is an

¹²⁹ United Kingdom, Directorate of Defence Policy, *The Strategic Defence Review* (London: The Stationery Office, 1998), 7.

¹³⁰ *Ibid.*, 16.

¹³¹ United Kingdom, House of Commons, *A New Chapter to the Strategic Defence Review* (London: The Stationery Office, 2003), 9.

¹³² Royal Navy, “Future Maritime Operational Concept...”, 6-7.

essential role encompassing all maritime functions and tasks that the Navy undertakes, and is critical in the joint environment.¹³³

In addressing the fourth maritime role, the utility of an OPV or corvette class vessel becomes apparent. In the early 90s, the British were toying with the idea of creating an OPV/Corvette class vessel in order to conduct peacetime offshore patrols including fisheries, counter terrorism and anti-pirate tasks. During wartime, these same vessels could be re-rolled into a towed array ship, integrating with a carrier task group as a towed array picket. It was also envisioned to have a long after flight deck without a hangar. In wartime, it would be capable of receiving a helicopter, but without the hangar, it also allowed for the option of adding containerized accommodation for troops or stores. The British recognized several advantages of this type of class, including providing for the development of young officers in command appointments, and a simple design would allow them to be fabricated fairly cheaply while maintaining the flexibility to allow for future equipment and design changes.¹³⁴ The downsizing of the British forces during the mid 90s scuttled this idea, and the idea has only just recently been revived in the form of the River class OPV.

These new River class OPVs are now part of the oldest squadron within the Royal Navy, the Fishery Protection Squadron. The primary mission of these vessels is the patrolling of over 80,000 square miles in English, Welsh and Northern Ireland waters,

¹³³ *Ibid.*, 7.

¹³⁴ D. K. Brown, *The Future British Surface Fleet : Options for the Medium-Sized Navies* (London: Conway Maritime Press, 1991), 141-142.

enforcing both UK and European Union (EU) fisheries legislation.¹³⁵ While working in conjunction with the EU and the Department for Environment, Food and Rural Affairs, they patrol an area responsible for 60% of a fish caught in the EU. While their presence offers a level of deterrence to would be offenders to the fisheries regulations, they also provide an enforcement capability with their boarding team, which consists of an officer who is trained as a British Sea Fisheries Officer.¹³⁶ They have also acquired a modified River class OPV, the HMS CLYDE, which is capable of carrying a helicopter. This vessel is designed specifically to operate as the Falkland Islands patrol vessel, and unlike its sister ships based in the UK, its mission is one of strategic deterrence. The CLYDE, “demonstrates commitment – the commitment of the UK to the Falkland Islands,” by providing the maritime presence required to act as a deterrent to those who would threaten UK national interests in this far away land.¹³⁷

While the core activity of these OPVs is in fisheries enforcement, by virtue of their design, they also have the capability and capacity to undertake other functions if required. At almost 80 metres in length, a crew complement of 30, with the capacity for an additional Royal Marine boarding party or special forces personnel, significant sensor and communications capability, significant boarding/interdiction ability and armed with a deterrent/self defence armament, these ships are capable of operating across the naval

¹³⁵ Royal Navy, “Fishery Protection for the New Millennium,” <http://www.royalnavy.mod.uk/server/show/nav.2157>; Internet; accessed 24 February 2008.

¹³⁶ Royal Navy, “Core Activities,” <http://www.royalnavy.mod.uk/server/show/nav.2141>; Internet; accessed 24 February 2008.

¹³⁷ Denise Hammick, “Anniversary presence: UK’s OPV(H) heads for Falklands,” In *Jane’s Navy International*, 1 June 2007. 1-3.

role spectrum.¹³⁸ Although the majority fall into the constabulary realm, military functions such as sovereignty patrols and counter terrorism are still present. Other functions range from training of basic seamanship, ship handling and navigation for junior officers and sailors, to Search and Rescue, disaster relief and anti-pollution. The versatility of these new vessels to operate with helicopters not only augments their ability for surveillance in the fishery environment, it also enhances their capability in the Maritime Counter Terrorism, anti-drug surveillance and anti-smuggling operations.¹³⁹ The OPV has become one of the *means* by which the VMF can achieve the *ends* of “delivering security for the people of the United Kingdom and Overseas Territories by defending them, including against terrorism; and to act as a force for good by strengthening international peace and stability.”¹⁴⁰

The British inclusion of an OPV has, as with the U.S., allowed the major surface combatants to concentrate their efforts on the more traditional roles associated with a navy. In accordance with the Royal Navy’s *Naval Strategic Plan*, the River class OPV fits nicely into their plan for a “Versatile Maritime Force”, by providing a platform that can perform “cost effective operations across a range of missions.”¹⁴¹

¹³⁸ Royal Navy, “Fishery Protection for the New Millennium...”

¹³⁹ Royal Navy, “A New Era.” <http://www.royalnavy.mod.uk/server/show/nav.2144>; Internet; accessed 24 February 2008.

¹⁴⁰ Royal Navy, “Future Maritime Operational Concept...”, 4.

¹⁴¹ Royal Navy, “Naval Strategic Plan,” <http://www.royal-navy.mod.uk/upload/pdf/stratplan06.pdf>; Internet; accessed 24 February 2008, 11.

Denmark

As a final country comparison, Denmark has been chosen, not because of our tensions mounting with respect to conflicting Arctic claims, but rather as a study of a smaller maritime nation with similar domestic and international concerns as Canada.¹⁴² Denmark has a coastline of 7,314km, however with the inclusion of both Greenland and the Faroes Islands, their coastline increases to approximately 47,744 km.¹⁴³ The Danish government realizes that their defence is intrinsically linked with their foreign and security policies, and like many countries, their security is, in a large part, dependant on the security and stability of the global environment. The aims of Danish Defence are: countering threats to the security of Denmark and her allies, maintaining sovereignty and the protection of her citizens, and working towards international peace and security in concert with the United Nations.¹⁴⁴

Their latest *Defence Agreement* covering 2005 to 2009 has forced the Danish Armed Forces, including the Royal Danish Navy, to change their current organization structure as well as the tasks assigned. In effect they are under going a period of transformation, similar to that which the Canadian military finds itself. Their navy has found themselves required to operate with increased frequency on the international scene, far from home, in diverse environments conducting equally diverse missions.

¹⁴² Although not the focus of this paper, further information with respect to the contentious Arctic claims between Canada and Denmark can be found by naval and foreign policy expert Rob Huebert, *Northern Interests and Canadian Foreign Policy*, Centre for Military and Strategic Studies, University of Calgary.

¹⁴³ "Denmark," *Military Technology* 26, no. 1 (January 2002): 104.

¹⁴⁴ Ministry of Defence Denmark, "Agreement regarding Danish Defence, June 2004," http://forsvaret.dk/NR/rdonlyres/73BAB725-750E-46C8-8786-7C59D9DAD18C/0/ENG_Forligstekst.pdf; Internet; accessed 17 March 2008, 1.

The Royal Danish Navy is to continue its role as a contributing member to NATO's Standing Naval Forces, and is to maintain its specialized capability in conducting littoral operations. They are also to increase their capacity to conduct domestic military and constabulary tasks in their North Atlantic area of responsibility. Their *Total Defence* concept recognizes the importance of joint coordination of all resources, including both national and international authorities, in order to ensure "an organised, functional society and to protect the population and the national assets."¹⁴⁵ Through this concept, the Danish forces are reorganizing in order to be able to counter and contain threats against the country and to respond to large scale catastrophes.¹⁴⁶ Among the many re-organization initiatives of this agreement concentrating on Total Defence, the Admiral Danish Fleet is to take responsibility for the rescue coordination centres of both the Air Force and the Navy in order to "strengthen the operational performance of the emergency response service."¹⁴⁷ These changes will serve to enhance Denmark's domestic and international responsibilities.

The maintenance of Denmark's objectives in the maritime realm requires a significant number of assets. Their naval vessels range from the older *Agdlek* class patrol craft, used in Arctic and fishery patrols, to the new *Absalon* class Flexible Support Ship, used as a command platform and joint logistic support and hospital support ship.¹⁴⁸

¹⁴⁵ *Ibid.*, 2.

¹⁴⁶ Ministry of Defence Denmark, "Total Defence," <http://forsvaret.dk/FMN/eng/Total+Defence/>; Internet; accessed 17 March 2008.

¹⁴⁷ Ministry of Defence Denmark, "Agreement regarding Danish Defence . . . , 7-8.

¹⁴⁸ *Jane's Fighting Ships 2007-2008*, ed. Commodore Stephan Saunders RN (Coulson: Cambridge University Press, 2007), 176-181.

Mainly for domestic tasks, also being acquired to replace the aging Agdelek class, are two Arctic Patrol Ships. These ships, although their primary role will be to maintain Arctic sovereignty in the waters off Greenland, like many OPVs, will have multiple roles. While conducting sovereignty patrols, they will also be conducting fishery protection patrols and will have an enhanced Search and Rescue capability with the addition of a flight deck and the LCP class fast landing craft. These small craft are the same ones found on the *Absalon* class, and are ideal for this task as they can operate in shallow waters and can handle icing conditions. They will also have the capacity to conduct international operations outside of the North Atlantic region if required in support of the Danish Defence goals.¹⁴⁹

As stated earlier, Denmark realizes that a stable and secure international community will directly benefit her own security. Their commitment to world order through their continued participation in NATO and in concert with the UN requires the Royal Danish Navy to be more than just a domestic security fleet. Their general purpose frigates, both the *Thetis* class and their recently announced replacements, as well as the aforementioned *Absalon* class provide a well rounded and capable force, capable of conducting both domestic and international tasks. A Danish innovation in ship design, *Stanflex* consists of a modularized system, allowing a single hull to be procured with the capability to have multiple configurations. Flexible mission specific modules are added

¹⁴⁹ Danish Naval History, "First Polish built Hull for new Danish patrol vessel delivered to Skagen," http://www.navalhistory.dk/english/navynews/2006/1120_newoffshorepat.htm; Internet; accessed 17 March 2008.

or removed as required dependant on the mission.¹⁵⁰ The various platform types, coupled with the *Stanflex* flexibility in equipment fit, enable Denmark's fleet mix to conduct the three roles of constabulary, diplomatic and military.

From the examples shown, Table 1 summarizes each country's priorities with respect to their naval forces. The table demonstrates the common themes between these nations; the defence of their country and their national interests as well as the contribution to global stability and security. All four nations have maintained a force projection capability with a blue water navy, recognizing the requirement and ability of a navy to act as an enabler to global stability and security. However they have all added smaller vessels, OPVs, into their fleets in order to take advantage of their efficiencies in conducting certain tasks. Australia has integrated the ACPB in order to take advantage of its specialized capabilities with respect to enforcing their sovereignty and in conducting various constabulary roles. The ACPB's design also enables it to augment the major surface fleet in those tasks in which its capabilities make it more suited to the task (i.e. insertion of SOF). The United States, the only true Rank 1 naval force, has embarked upon a new era of cooperation between the Sea Services, and looks at rejuvenating its Coast Guard with two new classes of ships; a frigate sized vessels as well as an OPV. This will allow their Navy to continue with its force projection tasks while the Coast Guard maintains the direct security and sovereignty of the United States. The United Kingdom has recognized its deficiencies in its domestic role and has acquired a new OPV to undertake those tasks, especially with respect to fishery patrols and enforcement.

¹⁵⁰ Geoffrey, Till, *Seapower : A Guide for the Twenty-First Century* (Portland: Frank Cass, 2004), 123.

Table 1 – Country Naval Force Priorities

Country	Priorities
Australia	<ol style="list-style-type: none"> 1)The defence of Australia; 2)security of the immediate area surrounding Australia including neighbouring countries; 3)promotion of stability and cooperation of Southeast Asia; 4)maintenance of stability in the Asia Pacific region; and 5)in cooperation with the UN, the security of the global community.
United States	<ol style="list-style-type: none"> 1) promote and defend their national interests by maintaining maritime superiority; 2) contributing to regional stability; 3) conducting operations on and from the sea; 4) seizing or defending advanced naval bases; and 5) conducting such land operations as may be essential to the prosecution of naval campaigns.
United Kingdom	<ol style="list-style-type: none"> 1)UK maritime security; 2)maritime force projection; 3)theatre entry; 4)flexible global reach; 5)networked C4ISR
Denmark	<ol style="list-style-type: none"> 1)Countering threats to the security of Denmark and her allies; 2)maintaining sovereignty and the protection of her citizens; and 3)working towards international peace and security in concert with the United Nations.
Canada	<ol style="list-style-type: none"> 1) The protection of Canada and its citizens at home and abroad; 2) guaranteeing Canada does not become a stepping stone for organizations threatening our allies; and 3) continuing in their efforts to enable international security.

Sources: Australian Defence Force, *Defence 2000 : Our Future Defence Force*, 30-31, Department of the Navy and US Coast Guard, *A Cooperative Strategy for 21st Century Seapower*, 3, Royal Navy, "Future Maritime Operational Concept," 6-7, and Ministry of Defence Denmark, "Agreement regarding Danish Defence, June 2004," 1.

Denmark while still recognizing their responsibility towards global peace and security, have maintained a number of smaller vessels and are in the process of acquiring replacement OPVs in order conduct those tasks ill suited for larger combatants.

This demonstrates that these countries have recognized the requirement for not only the major surface combatants but also for the inclusion of OPVs to take on those

tasks better suited for smaller, more cost effective vessels. Not surprisingly is the similarity between all four countries and Canada's priorities. All recognize the need for protection of their homeland as well as their responsibility towards international stability and security. Although all of the countries studied have similar priorities in their understanding of the global situation and their national security objectives, their individual situations differ and thus their solutions are all different. Similarly, Canada's solution will most likely also differ from her allies.

CANADIAN SOLUTIONS

With the examination of the four previous countries' approach to the new global security environment all maritime nations now find themselves, does Canada have the required assets that will ensure the navy is capable of achieving the governments National Security and Foreign policy goals? In the words of Franklin D. Roosevelt, "To change anything in the Na-a-vy is like punching a feather bed. You punch it with your right and you punch it with your left until you are finally exhausted, and then you find the damn bed just as it was before you started punching."¹⁵¹

Despite the Canadian Navy's reluctance to take on more of a domestic constabulary role, it is currently the only Government agency capable of doing so. The Canadian Coast Guard no longer has departmental status as it has been transformed into a Special Operating Agency (SOA) and absorbed by the Department of Fisheries and Oceans. They have maintained their responsibility for Search and Rescue, marine communications and safety of navigation services. Although there have been recommendations put forward by the Standing Senate Committee on National Security and Defence to the current government to increase the Coast Guard's role in areas of national security, the government has stated that they will not change the current mandate of the Coast Guard.¹⁵² The Department of Fisheries and Oceans conducts some surveillance of our ocean frontiers through the use of rented air services, however they have no constabulary mandate to investigate vessels of interest. The RCMP would be the

¹⁵¹ Franklin D. Roosevelt, quoted in Peter J. Dombrowski, and Andrew L. Ross, "Transforming the Navy: Punching a Feather Bed?" in *Naval Power in the Twenty-First Century* (Newport: Naval War College Press: 2005), 247.

¹⁵² House of Commons. Standing Senate Committee on National Security and Defence. *Coasts – An Update of Security Problems in Search of Solutions*. March 2007, 3-5.

ones to get the call, however they would require the services of either the Coast Guard or the Navy to be ferried out to the vessel. The RCMP is extremely under manned for this task. Using Nova Scotia as an example, they only have 13 officers to patrol 7,400 kilometres of coastline, equivalent to the entire country of Denmark.¹⁵³

So if the Navy is going to maintain its current, and perhaps soon to be enhanced, constabulary role, coupled with the statements made earlier that the frigates and destroyers are overkill in both capabilities and cost effectiveness, an additional type of platform will be required. The Canadian Standing Committee on National Security and Defence in March 2007 came to the same conclusion and went further to say that our fleet of Maritime Coastal Defence Vessels (MCDVs) are too small and too slow with very poor sea-keeping abilities. The committee stated that the Navy could do the job, providing they were given the proper assets to effectively conduct these duties, while ensuring that Canada was able to maintain her current blue water capability to protect and ensure Canada's national interests abroad.¹⁵⁴

The *Fleet Mix Study*, conducted by the Maritime Operational Research Team in concert with the Directorate of Maritime Strategy staff, was created in order to provide the Navy with an analysis of future naval requirements. These requirements were based on *Leadmark* and provided advice with respect to the "most effective mix of capabilities that must be resident within fleet units and the capacity (size of the fleet) that will be required to meet the anticipated Future Security Environment (FSE) and defence

¹⁵³ *Ibid.*, 6. As stated earlier, Denmark's coastline, without the inclusion of Greenland and the Faroes Islands, is 7,314km.

¹⁵⁴ House of Commons. Standing Senate Committee on National Security and Defence. *Coasts...*, 9.

challenges.”¹⁵⁵ Using several force employment scenarios and their probability of their occurrences, the current fleet mix was found to be woefully lacking. The potential for the current fleet to meet all the capabilities required, based on the governments and *Leadmark*’s vision occurred only 34% of the time.¹⁵⁶ These scenarios include Constabulary roles (Search and Rescue, environmental disaster responses, aid to the Civil power), Diplomatic roles (humanitarian assistance, evacuation of Canadians overseas, Peace Support Operations, and other diplomatic events) and Military roles (surveillance, national sovereignty/interests enforcement, defence of North America, collective defence, force generation activities, participation in US Carrier Strike Group and NATO deployments).¹⁵⁷ These tasks clearly span the entire spectrum of naval roles to which our navy is expected to be able to conduct, when and where required.

Although the reasons for why the fleet failed to achieve a respectable result in its force employment tasks did not rest solely on the shortcomings of the MCDVs, the MCDVs did fall short of the minimum capabilities required in all areas.¹⁵⁸ This further underlines the Standing Committee on National Security and Defence’s conclusion that a different platform is required to conduct domestic littoral, fishery and sovereignty patrols. The committee then argues that the Canadian Coast Guard should procure 8 new cutter type vessels for domestic patrols of the east and west coast plus 10 ice breakers to patrol the Arctic and also be given constabulary powers to enforce the various regulations in

¹⁵⁵ Defence Research and Development Canada, *Fleet Mix Study: Determining the Required Capacity and Capability of the Future Surface Naval Force Structure*, (Ottawa: Centre for Operational Research and Analysis, 2005), 1.

¹⁵⁶ *Ibid.*, 30.

¹⁵⁷ *Ibid.*, 62-92.

¹⁵⁸ *Ibid.*, 33.

force.¹⁵⁹ With the exception of the ice breakers and the ice breaking mandate, to which the Navy has no corporate knowledge of how to conduct, the naval reserves are better positioned to operate any new vessels destined to conduct domestic patrols. However, prior to going in depth on who best to operate the new vessels, an examination of what type of vessel would best suit Canada's needs is required.

So what are the options available for the patrol vessel? Not a simple question as the patrol vessel, and specifically an OPV as befits the needs of Canada, does not come in one shape and size and with equal capabilities. According to Stephan Priestly, a researcher with Simon Fraser University's Canadian American Strategic Review (CASR), the definition associated with an OPV "is a rather ambiguous term covering small, sea-worthy patrol boats right up to lightly armed and equipped corvette and frigate-sized vessels."¹⁶⁰ More and more nations are procuring OPVs in order to relieve their major combatants of the littoral domestic tasks for which they are too large and inefficient. However the tasks assigned to these vessels are extremely diverse and according to Edward Lundquist, the director of corporate communications for the Center for Security Strategies and Operations, Anteon Corp., the strategic communication consultant to the U.S. Navy, they include "fisheries protection; anti-drug surveillance and interdiction; humanitarian assistance; firefighting; towing and salvage; search and rescue;

¹⁵⁹ House of Commons. Standing Senate Committee on National Security and Defence. *Coasts...*, 11.

¹⁶⁰ Canadian American Strategic Review, "The Kingston Class: 'Mid-Life' or Move Over for the MCDV? Reviewing Navy Plans for the Future of the MCDVs [Part 3]," <http://www.sfu.ca/casr/id-mcdv-midlife3.htm>; Internet; accessed 16 September 2007.

immigration control; and pollution control and environmental protection.”¹⁶¹ In addition to these tasks, if the Canadian Navy is to be expected to operate effectively in the previously discussed *narrow seas* environment of a future conflict, then a platform shift or addition is required. At the same time, no single vessel has been created that can effectively and efficiently take full advantage of all of these tasks. The choices made by nations examined in the previous chapter demonstrate this variety of options.

Obviously a balance must be achieved through the examination of many criteria prior to choosing the optimum platform design. Criteria such as the environment in which it can be expected to operate (open sea and/or coastal), threat level, speed requirement and the types of tasks it will be expected to conduct.¹⁶² Learning from the Danish experience, the previously mentioned *Stanflex* innovation allows for a single hull to be able to conduct multiple roles depending on the configuration. Above all else, the most important piece of equipment on a patrol vessel is the boarding boat. Jan Jaeger, the former Admiral of the Royal Norwegian Navy, stated that “if you can’t board and inspect a boat with an irregular attitude, you can’t be effective...if you cannot act with good resolution, and have power behind your words then you should not be there.”¹⁶³ In other words, if you want to be credible and be taken seriously, you need some kind of weapon to back up your actions.

With so many criteria to be examined and options available in the OPV world, what are Canada’s options? The primary criteria should be an examination of the

¹⁶¹ Edward, Lundquist, “What do Offshore Patrol Vessels Have in Common? Not Much,” *Naval Engineers Journal* 119, no. 4 (Spring 2007):15.

¹⁶² *Ibid.*, 15.

¹⁶³ *Ibid.*, 16.

environment in which Canada would expect the vessel to operate within. There has been a plethora of talk lately with respect to coining Canada's domestic operations as the "Home Game." The justification for Canada's major combatants has been coined as the "Away Game", again keeping the threat as far away from home shores as possible.¹⁶⁴ Using a quote from hockey great Wayne Gretzky, "A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be."¹⁶⁵ At this moment the puck is in the other teams end, requiring a naval force that can project globally, and this is being achieved by Canada's major combatants and Task Groups in conducting international operations. Although it is the opposing team's end where one wants to keep the puck, someone always has to play defence, in support of our goal, in the event that the opposition steals the puck and enters our end. The potential exists for the puck to be in our end, and our force structure must be such that we can defend against this contingency. This important task should befall to the OPV.

Canada's end of the ice is enormous and should coincide with, at a minimum, the limits to which we currently conduct fishery patrols, which take Fisheries Enforcement Officers beyond the 200NM limit of our EEZ when conducting fishery patrols on behalf of the North Atlantic Fisheries Organization (NAFO).¹⁶⁶ In support of the Fall 2007

¹⁶⁴ Peter T. Haydon, "Canada's Navy: A Good Workable Little Fleet?" *Canadian Naval Review* 1, no.1 (Spring 2005): 13-15.

¹⁶⁵ World of Quotes, "Wayne Gretzky Quotes," <http://www.worldofquotes.com/author/Wayne-Gretzky/1/index.html>; Internet; accessed 12 April 2008.

¹⁶⁶ Food and Agriculture Organization of the United Nations, "Summary Information on the Role of International Fishery and Other Bodies with Regard to the Conservation and Management of Living Resources of The High Seas," <http://www.fao.org/docrep/W1310E/w1310E00.HTM> ; Internet; accessed 18 March 2008.

Speech from the Throne, it should also include those areas up to the ice covered waters of the Arctic, in order to increase our capacity for surveillance of our Arctic waters and the capability to act if required.¹⁶⁷ According to then Captain (Navy) Williams, these ships should have the ability to navigate the North Atlantic and North Pacific year round, with a sea keeping capability up to Sea State 7, and have the ability to navigate through first year ice.¹⁶⁸ These vessels must also have significant endurance to cover the vast expanse of Canada's EEZ as there are limited opportunities for refuelling, especially in the Arctic. Not a small order. But why complicate these vessels with an, albeit minimal, ice navigation capability. As stated earlier, the only department that is currently capable of conducting the majority of maritime domestic constabulary roles is the Department of Defence and by proxy the Navy. A scenario which the Norwegian's see themselves regularly is one where they have a requirement for ice strengthened vessels conducting fishery patrols. Fishermen have a habit of taking increased risks by working too close to the ice, and on several occasions end up being stuck, requiring rescue.¹⁶⁹ This is a scenario that may soon come into play for Canada as the effects of climate change open up more fisheries in northern waters.

Looking at the tasks to which these vessels could be assigned, it can easily be deduced that these vessels should have at least a minimal capability of conducting all the

¹⁶⁷ Govenor General, *Strong Leadership. A Better Canada – Speech from the Throne* (Ottawa: Canada Communications Group, 2007), 4.

¹⁶⁸ Doug, Thomas, "Canadian Offshore Patrol Vessels," *Canadian Naval Review* 1, no.3 (Fall 2005): 36. The Canadian Coast Guard website defines the thickness of first year sea ice to be 30-120cm. Further definitions with respect to arctic ice can be found at Canadian Coast Guard, "Icebreaking Program," http://www.ccg-gcc.gc.ca/ice-gla/TechnicalTerms_e.htm; Internet; accessed 9 April 2008.

¹⁶⁹ Edward, Lundquist, "What do Offshore Patrol...", 16.

functions under the constabulary role. Having these abilities will allow these vessels to secure Canadian sovereignty through Sovereignty Patrols; Aid to the Civil Power; Assistance to OGDs; SAR; Disaster relief; and Oceans Management.¹⁷⁰ From a diplomatic role perspective, they should be able to support maritime interdiction operations with an ability to conduct non-compliant boardings.¹⁷¹ Falling directly from the requirements to conduct these functions is speed. In order to conduct these types of operations, the ship should be capable of at least 25 knots in order to chase down suspected fishery violators, polluters, or smugglers in a timely fashion.¹⁷²

The final criteria should be manning requirements. The MCDV's complement is approximately 31 but can fluctuate depending on the mission assigned.¹⁷³ Skilled crews are becoming harder to attain, train and retain, and the earlier adage that ships and materials were expensive while the crew costs cheap has now reversed: crews are much more expensive than before with countries now seeing upwards of 60% of a ship's life cycle costs associated with the crew.¹⁷⁴ Smaller crews would definitely be better; however a balance must be achieved between crew size and the ability for the vessel to maintain its readiness level and state of preparedness for the duration of its mission.

Having determined a rough magnitude of the type of vessel that would be required, are there any current designs that fit the bill? CASR conducted a study in

¹⁷⁰ Maritime Command, Directorate of Maritime Strategy, *Leadmark...*, 98.

¹⁷¹ Doug, Thomas, "Canadian Offshore Patrol Vessels...", 37.

¹⁷² *Ibid.*, 37.

¹⁷³ Canadian Navy, "The Fleet," http://www.navy.gc.ca/cms_fleet/fleet_e/fleet-home_e.asp ; Internet; accessed 18 March 2008.

¹⁷⁴ Edward, Lundquist, "What do Offshore Patrol...", 15-16.

which a number of potential candidates, located in Table 2, were examined.¹⁷⁵ The Australian *Armidale* class and the British *River* class have already been mentioned, however due to the limited sea keeping capabilities and limited endurance of the *Armidale* and the slow speeds associated with the *River* class, both vessels are inadequate to meet Canada's needs.

Table 2 – Current OPVs

Country	Ship	Attributes*	Assessment
Australia	<i>Armidale</i>	Displacement:270T Crew:21 Range: 3,000NM Speed: 25kts	Although very effective and diverse in its capabilities, the size is too small for operations within the Canadian EEZ.
Britain	<i>River</i>	Displacement:1700T Crew:30 Range:5,500NM Speed: 20kts	As designed, lacks the ability to operate in and near the Canadian Arctic. Too slow.
Brunei	Nakhoda- Ragam	Displacement:1940T Crew:79 Range: 5,000NM Speed: 30kts	As designed, lacks the ability to operate in and near the Canadian Arctic. Crew size too large, but could be reduced with less armament.
Denmark	<i>Theitis</i>	Displacement:2600T Crew: 60 Range: 8,500NM Speed: 20kts	Able to operate in 1m thick ice, and designed to fulfil roles of sovereignty patrols and fishery protection in the North Atlantic. Too slow.
Ireland	<i>Róisín</i>	Displacement: 1700 Crew: 44 Range: 6,000NM Speed: 23kts	As designed, lacks the ability to operate in and near the Canadian Arctic. Basically a modified <i>Vigilant</i> without the helicopter facilities.
Mauritis	<i>Vigilant</i> (Canadian designed)	Displacement:1650T Crew: 57 Range: 6,500NM Speed: 22kts	As designed, lacks the ability to operate in and near the Canadian Arctic. Helicopter facilities are based off the Canadian Fisheries vessel <i>Leonard J. Cowley</i> .
Norway	<i>Nordkapp</i>	Displacement:3240T Crew: 52 Range: 7,500NM Speed: 23kts	Older design but capable of operating in first year ice. In addition to its fishery duties, it is also capable of firefighting and anti-pollution tasks. Fitted for but not with various armaments in the event of wartime or conflict use.
United States	<i>Offshore Patrol Cutter</i>	Displacement:3715T Crew: 91 Range: 9,000NM Speed: 27kts	As designed, lacks the ability to operate in and near the Canadian Arctic. Crew size too large.

* Range is an estimate at best economical speed. Speed is maximum capable.

Source: *Jane's Fighting Ships 2007-2008* and Canadian American Strategic Review, "Offshore Patrol Vessels (OPVs) – Specifications."

At the upper end of the spectrum based on size are the Danish *Theitis* class, Brunei's *Nakhoda Ragam* class, and Norway's *Nordkapp* class, all frigate sized vessels. Based on the aforementioned potential design requirements, the Danish *Theitis* class achieves all the requirements, with the exception of crew size and speed. At 60+, the ability for the Canadian Navy to sustain that level of personnel for 10 vessels would be

¹⁷⁵ Included in Table 2, but not part of the CASR study is the U.S. Offshore Patrol Cutter. It has been inserted just for comparison.

unachievable in the current environment. Brunei's *Nakhoda Ragam* class achieves the requirements, although it is too heavily armed and equipped for Canada's purposes.¹⁷⁶ In the Corvette-sized or smaller class of OPVs those that come close to the requirements are the Irish *Róisín* class, and the Canadian designed *Vigilant* class. The drawback to both these vessels, as they are basically the same general design with one having the capability to take on a helicopter, are their crew size that is pushing the envelope with a size of 50. Of all the vessels mentioned, only the *Thetis* class and the *Nordkapp* are ice strengthened. All others would require design modifications in order to achieve the requirement for first year ice navigation.¹⁷⁷ As shown there are presently no operational vessels that easily suit Canada's purposes, and thus a new *made in Canada* design or a re-engineered design of a current platform may have to be investigated.

So where will these ships come from? Current policy states that "The federal government will continue to procure, repair and refit vessels in Canada subject to operational requirements and the continued existence of a competitive domestic marketplace."¹⁷⁸ In other words, the government will continue to procure its maritime fleets through Canadian shipyards as long as our shipbuilding industry remains viable. That being said, many complaints from the shipbuilding industry have arisen with respect to the Government's procurement policy. The largest complaint stems from the government's lack of clear vision in providing a steady flow of work to the shipyards.

¹⁷⁶ Canadian American Strategic Review, "Offshore Patrol Vessels (OPVs) – Specifications," <http://www.sfu.ca/casr/id-opv-specs.htm>; Internet; accessed 16 September 2007.

¹⁷⁷ *Ibid.*

¹⁷⁸ Industry Canada. Canadian Shipbuilding Industry, *Focusing on Opportunities : A New Policy Framework For the Canadian Shipbuilding and Industrial Marine Industry* (Ottawa: Industry Canada, 2001), 17.

The President of the Shipbuilding Association of Canada, Admiral (Ret.) Peter Cairns, stated that “the government needs to put in place a procurement strategy that recognizes the needs of the navy, Canadian Coast Guard and the supporting shipbuilding industry...”¹⁷⁹ The past governments have forced a feast or famine culture upon Canadian shipyards through a lack of foresight and political will. The previous procurement strategy went along the following line: the government decided to procure a new fleet of ships; shipbuilding establishments increased their capacity and invested heavily in new gear and in modernizing their facilities, as well as in training a new work force; the contract is completed with no follow on work, forcing the shipbuilder to reduce capacity and layoff its workforce.¹⁸⁰ Not only would the elimination of this feast or famine procurement policy and replacing it with one where “effective forward planning...keep order books and employment levels more consistent over the longer term” be beneficial to the shipbuilding industry, it will also be beneficial to the navy.¹⁸¹ This symbiotic relationship allows the shipbuilding industry to maintain its competitive edge in this age of globalization, while the navy achieves a continuous flow of modern vessels properly suited for the changing security environment.¹⁸² According to Cairns, the Australians have concluded that the optimal procurement cycle is not by maintaining the vessels for

¹⁷⁹ Shipbuilding Association of Canada, “Building the navy’s ships,” http://www.shipbuilding.ca/articles/article_may3-04.shtml; Internet; accessed 21 November 2007.

¹⁸⁰ Industry Canada, Canadian Shipbuilding Industry, *Breaking Through* (Ottawa: Industry Canada, 2001), 39.

¹⁸¹ *Ibid.*, 40.

¹⁸² Shipbuilding Association of Canada, “This and That,” http://www.shipbuilding.ca/articles/article_aug14-06.shtml; Internet; accessed 21 November 2007.

their entire planned life of approximately 30 years, with an associated mid-life refit, and then replacing the entire fleet. The costs associated with maintaining these vessels near the end of their life expectancy increases exponentially. Their findings conclude that “the optimal annualized value for a navy occurs when the ship is replaced after 20 years of service. This eliminates the need for a costly mid-life refit.”¹⁸³ This also allows industry to maintain its production capacity and its work force experience by implementing a “rolling build strategy.”¹⁸⁴ This is clearly a win-win situation for both the navy and the shipbuilding industry.

Finally, who will be responsible for these vessels? As proposed earlier, the Naval Reserves are the most logical choice for manning these vessels upon the decommissioning of the MCDVs.¹⁸⁵ The Canadian Naval Reserves have approximately 4,000 personnel within their ranks and serve side by side the Regular force members in ensuring Canada’s maritime security. Their current mandate has the Reserves specializing in Coastal operations, Naval Cooperation and Guidance for Shipping as well as Mine Countermeasures.¹⁸⁶ In addition to these mandates, Reserves also augment the Regular Force as required, and provide both Port Security Units and their accompanying Port Inspection Diving Teams to ensure the safety and security of Canada’s many critical ports and harbours. They have benefited from many years of operating the MCDVs

¹⁸³ Shipbuilding Association of Canada, “Building the navy’s ships....”

¹⁸⁴ *Ibid.*

¹⁸⁵ The decommissioning of the MCDVs is necessary to make the OPV option cost effective by avoiding the extra costs of acquiring an additional fleet including capital, operational and maintenance, and personnel costs.

¹⁸⁶ Canadian Navy, “Naval Reserve Mission,” http://www.navy.forces.gc.ca/navres/home/navres_home_e.asp?category=3 ; Internet; accessed 18 March 2008.

while conducting coastal surveillance, search and rescue, law enforcement, resource protection and fishery patrols, and their transition into operating a more capable platform should be straight forward.¹⁸⁷

Several counter arguments arise from the Standing Committee on National Security and Defence's assertion that the Canadian Coast Guard (CCG) should be the ones to procure and man 8 Coast Guard cutters to patrol the East and West coasts. The Committee recognized that the CCG's inability to contribute to the defence of Canada is due to its lack of "the mandate, the experience, the equipment, and the institutional focus to do so," and if other countries utilize their Coast Guard in this manner, then why not Canada?¹⁸⁸ However it seems to dismiss these failings as mere *ant hills* that can be overcome with some positive direction from the government. But why would the government go through the trouble of shifting the CCG's focus away from that which it does particularly well such as buoy tending, ice breaking, environmental protection, SAR, navigation safety and emergency response? The Naval Reserves already have the mandate as an element of the Department of National Defence. As delineated in the *Canadian Forces Operations* manual the Canadian Forces' mission is "to defend Canada and Canadian interests and values, while contributing to international peace and security."¹⁸⁹ The Naval Reserves also already have the experience. Since 1995, the Reserves have been operating the MCDVs and, as stated earlier, have been conducting

¹⁸⁷ *Ibid.*

¹⁸⁸ House of Commons. Standing Senate Committee on National Security and Defence. *Coasts...*, 1.

¹⁸⁹ Department of National Defence, B-GJ-005-300/FP-000 *Canadian Forces Operations* (Ottawa: DND Canada, 2005), 1-1.

coastal surveillance and support to OGDs in both fisheries patrols and counter drug operations.¹⁹⁰ The MCDVs, as alluded to earlier, are insufficient platforms to conduct these tasks in all but very benign conditions. However, with a more capable platform, the delta to adapt to the increase in capabilities is no where near that which would be expected of the CCG. Finally, the Naval Reserves definitely have the institutional focus as a subsidiary to the Canadian Forces. Their mandate is tied directly to that of the Navy's and the Reserves have done Yeoman's service throughout these years despite the failings of the MCDVs. All these reasons also answer the final assertion as to why the Canadian Coast Guard should not have the same mandate as the Coast Guards of other nations. The Canadian Coast Guard is very capable in the roles it has. To build a redundant capability in the Coast Guard that is already resident in the Naval Reserves would be a waste of Canadian resources and equipment. Canada does not have either the capacity or size of the United States to allow for a completely separate arm for domestic security, and falls closer in line with respect to size as Australia, who does not have a coast guard. It is clearly time to provide the Naval Reserves with a capable platform with which it can achieve its mission more effectively.

Clearly, the OPV that Canada should investigate procuring should be robust enough to handle the severe weather conditions while not becoming too large that the crew size makes it unmanageable within the Navy's current personnel constraints. As the Canadian Government wishes the military to have greater visibility in the North, the Canadian OPV should be able to navigate through first year ice. This will enable these vessels to operate in the Arctic during the same time frame as ice strengthened merchant vessels. They should also be designed with enough versatility that they will not be

¹⁹⁰ Canadian Navy, "Naval Reserve Mission"....

relegated to only Arctic patrol duties or fishery patrols. There are benefits in acquiring a multi-purpose OPV ranging from the ability to support OGDs across the spectrum in the constabulary role, to seamlessly integrating into a naval task force if the situation warrants a smaller more efficient platform. Whatever platform is chosen it is apparent that the shipbuilding industry in Canada, although looking for that ever eluding continuous procurement strategy that would keep the industry competitive in the global market, is ready to show the world that it can compete and build a fleet of Canadian OPVs. With respect to who should operate these vessels, the logical choice is that they be operated by the Canadian Navy, and more specifically the Naval Reserve.

CONCLUSION

In support of the Government's Canada First Defence Strategy, this essay has developed a framework, starting with first principles in naval and maritime strategy to understand the type of navy required for Canada. The Navy's strategic vision document *Leadmark* was then used to examine the various roles and tasks expected of the Canadian Navy. Following was an investigation into various allies' solutions to the changing face of maritime power in the 21st century and a brief comparison of their priorities with respect to Canada's. Finally, Canada's way ahead in the realm of OPV procurement was examined.

Canada is a maritime nation of considerable proportion. In support of Canada's National Security policy, and one would imagine the soon to be released Canada First Defence Strategy, in order to ensure her sovereignty and protect her national interests in both the international and domestic realm, significant maritime forces are required. Both the International Policy statement and the Fall 2007 *Speech from the Throne* reaffirm the Government's willingness to be actively engaged in the international arena. The combination of destroyers, frigates and soon to be procured Joint Support Ships to replace the ageing *Protector* class AORs, gives the Government and the Navy a fleet with blue water capability to conduct those tasks in support of their efforts to enable international security as well as the protection of Canada and its citizens at home and abroad. Where it falls short is in the areas of efficiency and effectiveness when conducting certain tasks within the three roles.

Given the geographic factors as well as Canada's political willingness in the global environment, it is clear that Canada requires a navy whose capabilities span a wide

spectrum of military, diplomatic and constabulary tasks. From military operations in narrow seas, to sovereignty and fishery patrols in the constabulary role, weaknesses in Canada's current fleet mix, underline the requirement to fill the effectiveness and efficiency gaps with a new capability.

As seen through the various countries examined, there is a move afoot throughout not just these countries, but throughout the world towards capable, multi-purpose, inexpensive OPVs. This has allowed those countries to create fleets that are balanced for both domestic and international commitments while also attaining an acceptable level of efficiency and effectiveness across the spectrum of naval operations. Similar to Canada, all the countries studied recognize the need for protection of their homeland as well as their responsibility towards international stability and security. All have maintained a blue water capability while expanding into the realm of OPVs. These vessels have shown that they can be a versatile and inexpensive method to provide a gap filler where required. Although all of the countries studied have similar priorities, their situations differ and thus their solutions are all different.

Canada's individual situation does not allow for any current OPV in the world to meet her requirements. The vast expanse of Canada's EEZ through three oceans including some of the most inhospitable maritime environments in the world, not to mention the ice in the Arctic, pose considerable challenges to ship design. Canada's clear requirement for a vessel of the OPV variety, coupled with the stipulation that all federal vessels are to be built and designed in Canada should help boost her flagging shipbuilding industry, and may aide in the development of a continuous procurement strategy. It is clear that if these vessels are procured, they should be manned and

operated by the Naval Reserves and not by the Canadian Coast Guard as some proponents have stated.

In summary, it is clear that Canada, with her current stance towards international affairs, requires a blue water navy capable of supporting U.N and coalition stability and security operations throughout the world's maritime environment. Reductions to her major combatant fleet would seriously affect Canada's ability to respond to all the tasks expected of it by the Government. However, the addition of capable OPVs, operated by the reserves, would undoubtedly increase and enhance the navy's capability and capacity to undertake many of the tasks across the spectrum, particularly in the domestic arena. No longer having to *chase leadmarks*, OPVs will provide that *young navigator* with the tools required to find the perfect *leadmark*, with which he can guide the navy through a balanced world of domestic and international operations.

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