What Force for Canada?
A Theoretical and Practical Study of the Canadian Navy in the 1990s

by

Joanne T. Lostracco

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Abstract

Like the militaries of many western states since the end of the Cold War, the Canadian Navy has increasingly been in a precarious situation. On the one hand, because of the lack of a credible military threat, there have been calls to limit spending on defence and to decrease the size of such a force. Yet concurrently, the international community, in the form of the United Nations and other international bodies, has expected wealthy states to work toward relieving conflicts throughout the rest of the world thus placing pressure on these militaries to enter into dangerous situations.

This thesis takes a theoretical and practical approach in examining the effect this situation has had upon the Canadian Navy. Unlike the Army and Air Force, the Navy has a unique place as a diplomatic tool, a police presence throughout Canada's waters and as a warfighting organization. In understanding this role, the theoretical discussion centres around the spectrum of capabilities of a navy ranging from global reach on the high end and constabulary forces on the low end. This spectrum is then able to more precisely define the functions and capabilities of a medium power navy.

Having established this definition, the thesis turns to a practical study of the Canadian Navy in order to determine its place on this spectrum. Four determinants are examined including political factors, the federal budget, the defence industrial base and miscellaneous issues such as personnel, women in the Navy and technology. In the end, the examination of these determinants demonstrates that Canada does not necessarily have the "correct" navy to meet the needs of all the determinants but it has compromised to have the "expected" navy which has tried to meet all sides' expectations.

List of Abbreviations

AOR	Auxiliary Oil Refueler
ASW	Antisubmarine Warfare
CF	Canadian Forces
CPF	Canadian Patrol Frigate
DFO	Department of Fisheries and Oceans
DIB	Defence Industrial Base
DND	Department of National Defence
EEZ	Exclusive Economic Zone
EFZ	Exclusive Fishing Zone
FRP	Forces Reduction Plan
IPCRC	Inter-departmental Program Coordination and Review Committee (DND)
MARLANT	Maritime Operations - Atlantic (Halifax, NS)
MARPAC	Maritime Operations - Pacific (Victoria, BC)
MCC	Military Cooperation Committee
MCDV	Maritime Coastal Defence Vessels
MIO	Maritime Interdiction Operation
MNO	Multinational Force Operations
MoU	Memorandum of Understanding
NAFO	North Atlantic Fishing Organization
NATO	North Atlantic Treaty Organization
NORAD	North American Aerospace Defence Agreement
OAS	Organization of American States
OGD	Other Government Department
PJBD	Permanent Joint Board of Defense
RAF	Royal Air Force
RCMP	Royal Canadian Mounted Police
RN	Royal Navy
SolGen	Solicitor General
SSBN	Nuclear Powered, Ballistic Missile - Submarine
SSN	Nuclear-Powered Submarine
STANAVFORLANT	Standing Naval Force Atlantic (NATO)
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
USCG	United States Coast Guard

USN	United States Navy
WEU	Western European Union

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Introduction

Introduction

In the tide of global history, the end of the Cold War will always be seen as a dramatic turning point in international relations. With the crumbling of the Berlin Wall in 1989 and "velvet revolutions" in the satellite states of the Soviet Union came the end of the arms race and a new and more complex world of crises and relationships. Like most times of upheaval in history, the post-Cold War era has not been without its difficulties.

For many Western states, the end of the Cold War arms race has resulted in a perceived lack of a threat and thus there has been a call for a decrease in military budgets and a consequent increase in spending on social programs for the population.[1] In many of these countries, Canada included, the military budget has come to be seen as discretionary and thus subject to further cuts in an often partisan political process.[2] Moreover, public support for the military in Canada and other Western states has decreased, favouring instead diplomatic solutions to global problems including the imposition of trade and economic sanctions. Recent polls in Canada state support for the military in general is very low - only 51 percent believe that management of this organization is fundamentally

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[1] Cmdr Michele Cosentino (Italian Navy) "Multinationality: The Way Ahead for Western Maritime Power" Proceedings March 1998 p. 64.

[2] Peter Haydon "The Canadian Government's Role in Shipbuilding: Past Present and Future" Unpublished paper for the Centennial Meeting and 1993 International Maritime Exposition of the Society of Naval Architects and Marine Engineers, New York 1993 p. 3-4.

sound.[3] On the international scene, testimony to the move toward diplomatic bargaining can be seen in the recent development of international trade bodies such as the World Trade Organization (WTO), and, in military crisis situations, negotiations such as those which were sought in the 1998 Gulf Crisis where war was avoided as a result of diplomatic initiatives.

Yet further complicating the post-Cold War situation is an increase in crises for which the international community has called for a military solution.[4] The United Nations and Canada, as a member of the UN, in the years since the end of the Cold War have been involved in peacekeeping for civil wars and other emergencies in numerous states including in Haiti, Mozambique, Somalia, Rwanda, the former Yugoslavia and Iraq. In contrast, UN operations during the Cold War years were fewer and often in the form of ceasefire supervision and evacuation and did not necessarily include war-fighting.[5]

The combination of these factors has resulted in a rather precarious situation for a number of western states, including Canada. On the one hand, they are trying to limit spending on their military, while on the other hand they are expecting their armies, navies and air forces to enter into dangerous crises and, moreover, to successfully relieve the

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[3] Dan Middlemiss and Sharon Hobson, Defence Newsletter. Vol. 15, No. 8, August 1996 p. 5.

[4] Cosentino, p. 64.

[5] For more information regarding the evolution of peacekeeping see: Col. J.S. Bremner and LCol J.M. Snell, "The Changing Face of Peacekeeping" Canadian Defence Quarterly Vol. 22, No. 1, Special No.2, (August 1992) pp. 6-11.

situation. In 1998, almost a decade after the end of the Cold War and the advent of this dilemma, as Canadians we must ask ourselves what the effect of this situation has been on our military.

For Canada the end of the Cold War opened up a major debate. With the Department of National Defence admitting a lack of any credible threat, the ever-pervading question "why should Canada have a military?" arose.[6] To some, the presence of a strong military within Canada after the Cold War seemed, at the very least, a waste of money if not contrary to Canadian ideals. Talk of downsizing the military or even abolishing it was aided by the close proximity of the United States. This remaining global superpower has superior military capability and, historically, the interest in defending North America. In the post-Cold War years the United States has maintained overseas bases and possesses a keen interest in maintaining the global status quo. Consequently, some claimed that there seemed to be little reason for Canada possessing a capable fighting force except for the need to respond to domestic situations, such as national disasters and potential domestic unrest and to send on international peacekeeping missions.

Such a debate cannot occur without a serious impact on the Canadian military. While a study of the effect of the changing international and domestic environments on the Canadian military as a whole since the end of the Cold War cannot be done in a single

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[6] Department of National Defence, 1994 Defence White Paper (Ottawa: Department of National Defence 1994) p. 12. The 1994 Defence Policy Review saw some groups lobby, including the organization Canada 21, for the dramatic downsizing of the military.

short work, it is possible to take an in-depth look at one element of the military, the Navy, to see the impact of these developments. There have, in fact, been few independent analyses of the military since 1991 and, in particular, of the Navy. That being the case, nearly a decade after the Cold War has ended, it may be time for a more detailed independent analysis of this military environment.

Although land and air forces are important aspects of Canada's military and foreign policy, the Navy has a unique place for this country as both a diplomatic tool and a police presence throughout Canada's waters while the other two elements do not share similar roles.[7] Thus a study of the Navy can help to answer some of the broader questions about the need for a post-Cold War Canadian military. To get to that, however, we need to start by taking a theoretical approach to the concept of a navy and what it does.

It would appear that part of the debate is to understand why a navy is important to a state as well as to determine the spectrum of naval functions. In essence, we need to understand both what navies do, but more importantly, where the Canadian Navy fits within this overall spectrum. It is through this comparison with other navies and understanding what these forces do that we can accurately analyze the effects that the international and domestic environments may have had on the Canadian Navy.

Because Canada has become a medium power of some significance both militarily and in other dimensions, we need to look first at the theoretical discussion surrounding medium power navies. This is essential because the concept of "medium" is nebulous and

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[7] Peter Haydon "Canadian Naval Policy: Still Stalled, Still Contentious, and Still Political" Canadian Defence Quarterly Vol 26, No 4, Summer 1997 p. 10.

if we are to characterize Canada as a state with a "medium power navy" we need to know what that means. Hence, we must establish a spectrum of naval functions ranging from global naval missions to constabulary (or policing) navies. On a theoretical level, it would appear that medium power navies are responsible for both global and constabulary naval missions which can present a number of difficulties. That being the case, it becomes important to understand how a navy can portray itself as both a diplomat internationally as well as an adequate guardian of its contiguous seas. At the outset this would seem to require very different kinds of equipment and training, but is this necessarily so? A succinct examination of this question is essential in a study of the Canadian Navy because Canada is involved in international operations such as multinational force operations, as well as in policing its Exclusive Economic Zone (EEZ). The theoretical chapter aims to address this issue in detail.

The practical side of this thesis will examine the Canadian Navy as it is today in the post-Cold War era. In particular, it will ask what factors have shaped the Navy to become the organization it is today? The 1994 Defence White Paper, one of the most recent policy papers for the Canadian military, outlines the main policy objectives for the military as a whole. In short they are: the protection of Canada; cooperation in defence matters with the United States; and participating in peacekeeping operations internationally.[8] In 1998, Canada has used its Navy to support diplomatic initiatives through port visits, war-fighting and deterrence operations in the Persian Gulf as well as for domestic purposes in

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[8] Canada, Department of National Defence, 1994 Defence White Paper (Ottawa: Department Supply and Services 1994) p. 49.

support of other government departments (OGD). One would expect that a navy for "diplomatic" purposes in the post-Cold War era would need to be significantly different than a navy used for "police" purposes. Yet the Navy seems to have been able to fulfil both roles. We must question whether there is an opportunity cost involved in deploying the Navy for one or the other mission?[9] In order to answer this question, this thesis will embark on a study of the Canadian Navy through an examination of a number of important determinants. For the purpose of this work, indicators will be examined which fall largely into four general categories: Political; Budgetary; Industrial and Miscellaneous issues such as personnel and technology.

These determinants help explain all major aspects of naval policy within Canada from the defence industrial base to the political decisions made in Ottawa. For instance, in a relatively straightforward manner, I will examine the post-Cold War Department of National Defence (DND) maritime budget which will provide an indication of the budgetary trends as well as the cost of procuring and maintaining the Navy's equipment. It will also give an idea of the dollar cost of our alliance commitments which will help determine if we are able to meet these commitments fiscally. On the more challenging side, I will examine some of the domestic political considerations for Canada's involvement in both our domestic roles as well as in multinational force operations. For instance, how supportive are Canadians, as a whole, of peacekeeping operations? Such indicators can be measured through recent public opinion polls. More difficult to measure

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[9] Opportunity cost can be defined as the cost of an action in the value of the foregone alternative action which can only arise in a situation of scarce resources.

may be the attitude of the government towards Canadian involvement in multinational forces versus its commitment to Canada's domestic taskings such as sovereignty patrols. At best these attitudes can be abstracted from declaratory statements by the government, although this may still be somewhat sketchy. This type of analysis should, however, give a general idea of the view the government holds. Also important to measure is the functional naval relationship that Canada has with the United States. This can be accounted for through naval exchanges, joint training between the Canadian Navy and the United States Navy (USN) as well as joint exercises.

Another indicator involves an examination of the equipment the Navy uses. With respect to our international commitments, it is important to have equipment which is interoperable with both the USN as well as with other NATO countries. It is also important to have the right platforms and equipment which meet the specialized role we have within these alliances such as our traditional anti-submarine warfare (ASW) role in NATO. To have the right equipment, however, requires a strong defence industrial base. While Canada could buy its equipment off-shore, the 1994 Defence White Paper again maintains the government's commitment to a defence industrial base through its continuation in the Canada-US defence industrial agreement. While the White Paper also recognizes that some equipment must be obtained through alliances, Canada still has a significant defence industrial base. Strictly speaking, in order to maintain sovereignty as the most recent defence policy papers espouse, it is desirable to be able to build and maintain some independent Canadian defence products. That being the case, we would expect Canada to have a strong defence industrial base. Thus, in addition to an

examination of the equipment the Canadian Navy uses, it is also necessary to evaluate the industrial support for new equipment. Should the Navy need something new or when equipment needs to be overhauled, it is essential that necessary support be available. Thus, my study would be incomplete without at least a cursory examination of the naval defence industrial base.

Another important indicator is personnel. Does the Navy have enough people to be involved in both its domestic and international missions? In this instance, it will be important to examine Canada's "balanced fleet" policy between the Atlantic and Pacific. If there is a crisis for which Canada needs to send a ship into international waters, are there enough ships left on that particular coast to still be able to meet "normal" operations? Does the Navy have the technical support needed on shore for servicing and administration? Finally, has the relatively recent introduction of women aboard ships influenced the operational ability of the ship? These indicators can be measured through basic statistics as well as through interviews conducted with senior naval officers.

On the whole, these and other determinants together will help to form a picture of the Canadian Navy. Both the domestic support it receives as well as support from its allies should become apparent. That being the case, we will be able to make some concrete conclusions about the state of the Navy and its support which, in the end, may lead to some realistic policy and operational suggestions for effective naval operations both with our allies and in protection of our own waters.

Chapter One

A Spectrum of Force:
Global Reach and Constabulary Navies

Theoretical Background

In the past century much has been written on navies and naval strategy. From Mahan's far-reaching large fleets and battleships to the Jeune Ecole's essentially domestic navies, this field has seen a range of approaches to naval strategy and sea power. In large part, the focus has been two-fold. On the one hand, it concentrated on large navies such as the Royal Navy before the Second World War and more recently, the United States Navy (USN).[1] Yet on the other hand, naval theory was geared toward the small domestic navy which was used strictly for coastal defence.[2] This has become even more pronounced in the wake of the United Nations 1982 Convention on the Law of the Sea (UNCLOS) which gave rise to a heightened interest in constabulary navies. What appeared to be missing until quite recently was a body of academic discussion on medium-power navies; specifically, ones which do not fall into the category of superpower but have a reach beyond their immediate maritime area of concern.

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[1] A short list includes writings by Captain Alfred Thayer Mahan The Influence of Sea Power upon History, 1660-1783 (Boston: Little Brown 1890); Sir Julian Corbett Some Principles of Maritime Strategy (New York: Longman's Green and Co. 1911); and Vice-Admiral Stansfield Turner "Missions of the US Navy" Naval War College Review, March/April 1974 Vol. XXVI No. 5 More recent writings include The United States Navy, ...From the Sea: Preparing the Naval Service for the 21st Century (Navy News Service - NavNews 046/92 September 1992).

[2] Some seminal authors on this subject include Mike Pugh "Policing the Seas: The Challenge of Good Governance" in G. de Nooy. ed The Role of the European Naval Forces After the Cold War (Netherlands: Kluwer Law International 1996); Rear-Admiral R.J. Hill "Control of the Exclusive Economic Zone" Naval Forces Vol VI No. VI 1985; Nien-Tsu Alfred Hu and James K. Oliver "A Framework for Small Navy Theory: The 1982 U.N. Law of the Sea Convention" Naval War College Review Spring 1988 pp. 37-48.

In spite of this, the term "medium-power navy" encompasses a significant number of naval fleets today. For instance, Rear-Admiral R.J. Hill, a highly recognized expert in this field, cites the following as examples of medium power navies: France, India, Japan, Brazil, Australia, Israel and Britain - a list which includes both developing and developed nations.[3] Similarly, Eric Grove's typology of navies includes as medium power navies states as diverse as Japan, China, Pakistan, New Zealand, Morocco and Egypt.[4] The important questions, then, which beg to be asked are what is a "medium power" navy, what are its main functions and ultimately, does Canada belong in this category?

What is of further interest is the apparent challenge which a medium power navy consistently faces. That is, while both global and domestic navies have specific tasks such as presence, power projection and sea control for global navies and policing contiguous seas for small domestic navies, medium power navies lie somewhere between these two poles which can be regarded as a spectrum of capabilities. How does a force which has the capacity for some large tasks fulfil the role of both a police officer of the state's oceans as well as a diplomat and symbol of the state's sovereignty abroad? Perhaps we also need to ask: to what extent is coalition work with allies part of the foreign policy aspect of medium power navies?

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[3] Rear-Admiral R.J. Hill Maritime Strategies for Medium Powers (Annapolis: Naval Institute Press 1986) p. 22-25.

[4] Eric Grove The Future of Sea Power (Annapolis: Naval Institute Press 1990) p. 236-240

Some Terms Defined

In any quick glance through literature on navies it is soon apparent that there are a number of confusing terms which are used in several different contexts and also used interchangeably. Therefore, the first step in this discussion is to clarify some basic theoretical terms which will be used in this thesis.

One term is the "capabilities" of navies. For the purpose of this paper, the capabilities of a navy refers to the "abilities" of the navy. That is, what it is able to do with the actual physical equipment it has and how well trained its people are in its use. On the other hand, the "functions" of a navy focuses on the mandated purpose of the navy. Specifically, that involves only what it is designed to do and does not reflect training and proficiency. The spectrum of navies this thesis focuses upon will reflect the capabilities of navies since they largely reflect the "real life" situations a navy faces and not just theoretical possibilities based upon equipment design.[5] The terms "mission", "role" and "task", while often used interchangeably, are regarded, for this paper, as separate from the terms capability and function. Missions, roles and tasks are taken to mean a single concise statement, purpose or aim and are not seen as all-encompassing. Specifically, "mission" refers to "the precise task that a warship or group of warships are capable of performing as opposed to the proper or customary 'role' of those vessels."[6] Similarly, a "task" is what

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[5] Discussions with Peter Haydon

[6] Peter Haydon, "Emerging Concepts of Sea Power and Maritime Strategy" Unpublished paper, 1998, p. 52.

a ship is doing at that precise moment and is grounded in the immediate reality. In light of these definitions, it must be clear that this study is examining a spectrum of the capabilities of a navy since it will help us to understand all of this organization including political, economic and military factors.

In examining this naval spectrum, it important to understand that, at their polar extremes, navies range from global reach to domestic or constabulary navies. Medium power navies sit somewhere in the middle of this spectrum and thus present us with a decidedly nebulous concept. Understanding this term requires an examination of the capabilities of global reach navies as well as those of domestic navies since elements of both these poles can be found in medium power navies. This paper uses the term "global reach" navy to encompass the high end of the capabilities spectrum. Some of the literature uses the phrase "large power", however it would appear that this describes only the size of the fleet and not necessarily their capabilities. A more accurate term for our discussions therefore is "global reach". Similarly, the term "constabulary" is used to describe the low end of the spectrum since it emphasizes the policing action of a navy. By assessing a navy as "small" does not necessarily mean that its focus is on policing coastal waters. On the contrary, a small navy may be just as effective at warfighting but with a smaller fleet.[7] Thus a more precise term for the low end of the spectrum would be "constabulary".

Because Canada has been influenced by both ends of this spectrum, we need to take a detailed look at both concepts. Consequently, this discussion will begin by

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[7] An example of this is the Israeli Navy which has a small but considerably effective fleet.

clarifying the range of navies which will help in understanding where Canada fits on this spectrum as a medium power navy.

Global Reach Navies

Traditional naval theory, such as that espoused by Sir Julian Corbett, Admiral Alfred T. Mahan and Admiral Sir Herbert Richmond in the first half of the century, was based upon large navies possessing enormous battleships and fleets engaging in decisive battles far out on the high seas in order to achieve control of the sea.[8] For many centuries before these theorists, it was well recognized that having control of the sea lent considerable advantage to those who used the sea. The Athenian victory over the Persians in the Battle of Salamis and the Roman victory over the Carthaginians are but two examples of the decisive character which can stem from effective use of sea power.[9] Later fleets, such as those cultivated by Portugal in the fifteenth and sixteenth century and the Netherlands in the seventeenth and eighteenth century, were employed in an attempt to control the seas for merchant shipping.[10] Since those early days, global navies have

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[8] Margaret Tuttle Sprout "Mahan: Evangelist of Sea Power" Edward Mead Earle (ed.) Makers of Modern Strategy (Princeton: Princeton University Press 1971) p. 415.

[9] VAdm Stansfield Turner "Missions of the US Navy" Naval War College Review March/April 1974 Vol XXVI No. 5.

[10] For more information on the evolution of global navies from 1494, see George Moldeski and William Thompson Seapower in Global Politics 1494-1993 (Seattle: University of Washington Press 1988) pp 151-338.

progressed significantly. At a cursory level they have modernized beyond the age of sail but more important, the philosophy behind global navies is dramatically different. No longer is the navy expected to be involved exclusively in battles on the high seas but is often used for missions in order to influence action on land.

In the post-Cold War era, the basis for examination of global reach navies lies largely with the United States Navy. Global navies are defined as navies belonging to "states with widespread global responsibilities and interests and have established foreign and security policies that include the use of naval power in all its forms to support these policies."[11] Due to American foreign policy and the size of its navy, the USN is the best example of a global reach navy today. While some naval forces are regional actors, such as those of China and India, today few navies can even come close to competing with the sheer size and strength of the USN.

On the whole there are at least four missions large power navies must be capable of performing: strategic deterrence, sea control, naval presence and power projection.[12] While it is important to understand these concepts, I will not go into great detail to explain them because, for the most part, they are self-explanatory. I will, however, examine aspects of them which will later apply to our model of a medium power navy.

To begin, strategic deterrence, like its connotation with the Cold War bombers' assured second strike, is used in order to deter all-out attacks on the country. As a global

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[11] Peter Haydon p. 54

[12] Turner, p. 2.

navy, this force must have the ability to deter any potential aggressor by presenting them with unacceptable risks. As a result, this theory postulates that a stable political environment will be maintained which is one of the foremost objectives of a global navy.[13] Achieving strategic deterrence, however, requires effective equipment which also includes the most up-to-date technology. Today, for global navies, this would assume that there is some level of nuclear weaponry on board ship as well as other advanced weapons systems.

A second mission which global navies must be able to perform is sea control. Vice-Admiral Stansfield Turner recognizes that the term sea control, unlike its predecessor 'control of the sea', identifies the limitations on ocean control brought about by the development of the submarine and airplane.[14] Sea control involves denying the sea to one's enemy while assuring use of the seas for one's self.

Third, a global navy must be capable of power projection. As it would suggest, this concept is focused on the projection of power ashore in the form amphibious assaults, naval bombardment and air strikes. While this has similarities to sea control (an amphibious assault, for example, can also be used at a choke point in order to assert sea control) the distinction comes in the purpose of the operation which is largely to support land campaigns.

Finally, a global navy is expected to be able to effectively conduct naval presence. In short, this is used simply to achieve political objectives without going to war.

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[13] Turner, p. 5

[14] Turner, p. 6

Achieving effective naval presence could mean either deterring or encouraging actions of an opposing state which can be done through preventative deployments and reactive deployments. In peacetime this would involve a show of presence (preventive) while during times of crisis this would become more of a response mission (reactive).[15]

Constabulary Navies

At the opposite end of the spectrum are constabulary navies. Not as straightforward as global navies, these are forces which police the waters contiguous to the state and over which the state has jurisdiction. Interest in the constabulary capabilities of navies has dramatically increased since the signing of the United Nations Convention on the Law of the Sea (UNCLOS) in 1982. In order to understand modern-day constabulary navies it is necessary to begin by examining this Convention with a specific focus on the Exclusive Economic Zone (EEZ) as it pertains to the security of maritime states as well as theoretical arguments surrounding the on-going debate of using a navy versus coast guard for fulfilling constabulary actions, in the EEZ.

UNCLOS and the EEZ: The Beginning of a Definition?

The close of UNCLOS in 1982 resulted in a considerably different view of the oceans. On the whole, the Convention heightened concerns about security on the seas. And for good reason. Over the second half of this century, there has been a substantial

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[15] Turner, p. 14

increase in international trade, and as a result, an increase in the use of the sea lanes. Furthermore, there has been concern about illegal activities on the seas such as drug trafficking, illegal fishing, the illegal movement of people and environmental violations. In fact, central to this Convention is concern for resource management of the oceans leading to interest in boundaries and who has the right to use what part of the seas for certain purposes. Taking these concerns into account, UNCLOS established international guidelines for countries to work within. The result was a document which had an impact on traditional naval roles and encouraged new constabulary duties to be fulfilled by either the navy or a more heavily armed coast guard. This is not to say that navies have not engaged in constabulary actions in the past. However, UNCLOS extended the enforcement of state laws requiring more intense and a different type of monitoring of the sea. In order to understand the extent to which UNCLOS has impacted maritime states, it is necessary to look at some of the issues created by the establishment of the EEZ.

To start, one aspect of UNCLOS which has had a significant impact on naval forces, especially in Canada, was the establishment of the Exclusive Economic Zone. In many ways, the EEZ aids in defining a constabulary navy. This is so primarily because UNCLOS expanded the traditional maritime jurisdictional zones. The territorial sea, for instance, has been increased to 12nm from shore, the contiguous zone was extended to 24nm and the EEZ was created and limited to 200nm. Articles 56, 58 and 60 of UNCLOS allow the coastal states to have the "sovereign right" to explore and exploit resources, establish and use artificial islands and structures for marine research and protect

and preserve the marine environment within the EEZ.[16] This translates into the coastal state possessing the sole right to fishing and resource exploration while it protects the rights of other states to use the "high seas" for navigation of ships, aircraft and submarines.[17]

The Challenge of Enforcing the Law Within the EEZ

With the establishment of the EEZ comes the challenge of enforcing this law. Coastal security has been recognized and defined as "the actions taken by a state to manage, preserve and use the resources and activities of its coastal region and Exclusive Economic Zone to further that nation's economic and political well-being while preventing the occurrence within that area of acts detrimental to its welfare."[18] Fully recognizing and implementing this definition raises a number of important questions. For instance, what kind of equipment would be needed to monitor security at sea? What activities need to be monitored? Also, is the navy the best organization to carry out this task? Answering these complex questions in this chapter requires a three-fold approach. First it will merit a look at the specific physical tasks required of coastal security forces in order to implement

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[16] Horace B. Robertson, Jr. The "New" Law of the Sea and the Law of Armed Conflict at Sea. (Newport: Naval War College 1992) p. 10 See also: W.A. Ford Too Few Fish: A Study of Fishing Disputes (Newport: Naval War College 1995).

[17] Robertson, p. 10

[18] Robert G. Moore "Coastal Security: Establishing the Forces to Protect Maritime Borders" Journal of Defence and Diplomacy Nov 1988 p. 1.

this definition. Second, in order to perform these tasks, I will examine the capabilities coastal security forces are expected to have as well as personnel and equipment requirements needed to achieve these capabilities. Finally a brief examination of the feasibility of using a coast guard versus a naval force to ensure coastal security will be undertaken.

Of the analysis of the particular duties of coastal security forces which has been done, most academics recognize that, in general, they can be divided into four groups. One of the most prominent is the protection of fishing rights. In the past this was a relatively straightforward procedure as fishing technology was simpler and the area in which the law had to be enforced was smaller. However, in recent years, because of UNCLOS and international fishing agreements as well as advances in fisheries technology, more comprehensive procedures need to be adopted.[19] These include more advanced platforms with increased military capacity such as higher powered ships and better communication systems. Conflict has occurred in the past over the right to fish in specific areas and because stocks are depleting, the likelihood of further conflict may increase.[20]

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[19] --- "Coastal and Offshore Protection" Navy International December 1991 p. 324.

[20] The largest weapon recorded to be used in a battle over fishing rights was a 127mm gun. It has been less likely, however, that any weapon be used in these disputes. One of the benefits of UNCLOS has been to provide for a document which allows for the coastal state to take the "moral high ground" and enforce UNCLOS. It nevertheless does not completely diminish the threat. Two incidents of significance which have involved this very issue are the Cod Wars in the 1970s between Britain and Iceland and the 1995 Turbot Crisis between Canada and Spain. Both of these conflicts involved the navies

Another duty which coastal security forces are required to perform is the prevention of illegal activity at sea including smuggling, piracy and illegal immigration. These operations include drug interdiction as well as the prevention of hijacking and raiding of ships which, in some cases, have come to the point of seriously disrupting merchant trade.[21] With both piracy and drug interdiction, the offending parties are often well-armed which means that security forces must be adequately equipped as well. In recent years the threat of illegal immigration has increased and poses some serious threats to the receiving coastal state.

A third recognized activity is to counter terrorism. Both non-military threats such as malicious damage (for instance, vandalism which arises from frustrated workers or organizations) as well as "politically-motivated" threats including those which come from other states or non-state organizations need to be prevented. Unlike civil threats, military threats can be defined in one of four ways.[22] First, a low-level threat designed to influence national policy usually involving some sort of terrorist activity. Second, a low-level threat designed to enforce political pressure. Third, a military threat occurring within a period of rising threat. Finally a full-scale war with the military threat arising from this situation.

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defending waters for their own fishermen.

[21] --- "Coastal and Offshore Protection" Navy International January and February 1992 p. 9. The South China Seas is one area which has been prey to piracy and impacted mercantile trade.

[22] For a more detailed discussion of these threats please see --- "Coastal and Offshore Protection" Navy International December 1991 p. 324.

While military (or political) threats are generally more easily predicted, non-military threats are often more difficult to police and thus require constant surveillance. Coastal security forces, then, are less concerned with military threats as they are with more arbitrary terrorist threats.

Lastly, coastal security forces are called to aid in the protection of the environment. Because there has been a significant increase in trade since the Second World War, notably trade in oil and other potentially hazardous resources, threats to the environment have increased substantially. Although this does not necessarily require combat potential, it may require coastal forces to intercept and board vessels they suspect of inflicting environmental damage such as pumping bilges or dumping hazardous material at sea.

While most maritime states recognize the importance of the navy being capable of performing the above activities, it has become increasingly difficult to decide how to deal with them. Effectively enforcing the laws UNCLOS sets out requires significant personnel and equipment. Rear-Admiral R.J. Hill outlines at least five capabilities which coastal security forces must possess if they are to effectively fulfil the above duties.[23] First they must be able to collect information in order to be able to monitor activities within the EEZ. Next they must be able to inform other vessels passing through their water area about both their laws as well as provide general real-time information about the waters

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[23] For a more detailed discussion of constabulary naval functions see Rear-Admiral R.J. Hill (Ret'd) "Control of the Exclusive Economic Zone" in Naval Forces Vol VI, No. VI 1985 p. 87.

they are using. Third, a coastal security force must be able to warn craft passing through this area of potential dangers such as proceeding the wrong way down a sea-traffic lane or when entering an oil rig safety zone. Another capability of these forces is that they must be able to perform inspections on ships which they suspect of violating their national laws. Finally, Hill believes that these forces must possess the ability to detain those who are in violation of these laws so that the waters can be effectively policed. Other academics have cited similar capabilities. Robert Moore, for instance, sees some of these requirements as; the detection and monitoring of activities; the acquisition, management and use of information, and reliable, secure and sustainable communications.[24]

In translating these capabilities into personnel and equipment, coastal security forces need to be well equipped and have effective communicating and monitoring equipment, in addition to proper high-level training to deal effectively with a variety of situations which may arise. With regard to equipment, it has been well recognized that monitoring comes from not only physically patrolling the area in surface vessels, but also from aircraft patrols, radar monitoring and even submarine patrols.[25] All of this equipment must work closely together in order to be effective. While Hill mentions that "radar-fitted aircraft would ... logically appear high on the list of most coastal states", it is also true that surface ships are essential since they make boarding other craft easy and they can stay on

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[24] Moore, p. 4

[25] See Hill, p. 88; Also: Capt(N) G.L. Edwards "The 200-Mile Economic Zone: New Territory, New Commitments, New Worries" in Canadian Defence Quarterly Vol 6, No 3, Winter 1976/77 p. 32-36.

station for a number of days.[26] Furthermore, unlike aircraft, surface vessels contain weapons which are best suited to this low-combat role. Submarines, on the other hand, can create a psychological threat to those conducting illegal activities since they may not know when they are being watched. In essence a coastal security force requires many levels of specialized training and equipment in order to effectively perform.

The question now arises whether these capabilities should be held by the navy or by a well-armed and equipped coast guard. Theoretically, there are at least three strong arguments which support using a coast guard.

The first revolves around the priorities of naval missions. As an organization which has war-fighting and deterrence as its primary mission, the addition of constabulary duties, it is argued, will detract from its most important mission. Michael Pugh notes that while minesweepers and submarines can do an effective job in fisheries patrol, they are invariably used for policing roles only when they are available which, if this is the only means of monitoring, may leave the seas vulnerable to illegal activity.[27] More important, however, naval craft may be out on patrol when a situation arises and they are needed in their war-fighting or deterrence capacity. The result could be a direct threat to the state which the navy may be unable to defend.

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[26] Hill p. 88 also, Crickard and Haydon, p. 22-24 for information specific to the Canadian Navy.

[27] Michael Pugh "Policing the Seas: The Challenge of Good Governance" in G. de Nooy, ed. The Role of the European Naval Forces After the Cold War (Netherlands: Kluwer Law International, 1996) p. 126.

Another argument against using the navy for constabulary duties lies in the nature of naval vessels. Because the primary mission of the navy is war-fighting, deterrence and diplomacy, the ships are outfitted for that capacity. It has been called "a classic case of using a sledgehammer to crack a nut". The use of the Royal Air Force (RAF) Nimrod antisubmarine warfare (ASW) aircraft to carry out low level offshore surveillance of the UK EEZ with resulting reduction in the life of the aircraft is one example of the cost-ineffective use of military equipment for civilian purposes.[28] Pugh, in this case, also questions the cost effectiveness of using naval equipment for these less intense activities. He points to the Cod Wars between Iceland and the United Kingdom as a prime example of using expensive warships with no effective result. Pugh, in essence, argues that military craft should only be used for policing roles if they also serve in a deterrence and security capacity as well because they may not be effective otherwise.

Finally it has been contended that navies possess "nice to have" capabilities, such as efficient and modern weapons and ships and well trained personnel, but which are not essential in order to effectively patrol the waters. Thus, if a state is acquiring a coastal defence force, it is not necessary to build a navy but merely a strong coast guard. The logic to this lies in its cost-saving potential. Why should the state pay for this equipment if it was only ever going to be used in their constabulary duties? Those who support this argument state that it would be less expensive since there would be no overlap between the navy and the coast guard.

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[28] --- "Coastal and Offshore Protections" Navy International December 1991 p. 326.

Upon initial consideration, all of these arguments hold some substance. In fact, in days of fiscal restraint they hold some valid and logical points which should be taken into consideration. However they may not be quite as convincing when examined in more detail. First, we must recognize that these arguments lean *against* using the navy as a coast guard but do not give specific reasons *for* using both a coast guard and a navy. Other than perhaps decreasing the type and amount of ammunition carried aboard naval vessels conducting fisheries patrols, there may be little difference between a smaller naval craft and a coast guard ship. Furthermore, a warship carries with it the state's authority and can have more "presence" thus imparting an effect at policing the waters.

Beyond this basic point, however, assessing these arguments requires taking a look at the whole picture. When a warship is on sovereignty patrol it is serving a number of actions simultaneously. First it is serving in its primary deterrence capacity but concurrently it is also monitoring fishing activity and other potentially illegal activity which may occur near-by. Because it is already away from shore, it may be easier for naval craft, either air, surface or subsurface to reach an area of activity where they are needed. That being the case, this calls into question Pugh's argument of cost-effectiveness.[29] For all intents and purposes it would appear that it is more effective to have the navy fulfil both duties than to have two separate organizations. Furthermore, to fulfil its war-fighting and deterrence capacity, the navy already possess the equipment which needs to be continually used in order to have personnel who can effectively use it in times of crisis. Therefore, it

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[29] Pugh, p. 126

makes little sense to have a coast guard which is monitoring and patrolling fishing activity when this can be accomplished just as effectively through the navy's sovereignty patrols.

This is not to argue that there should be no coast guard at all. Many navies act in these constabulary duties in support of other government departments (OGD) and for Canada, in fact, this is the preferred role. Specifically that means that the navy engages in sovereignty patrol (its deterrence capacity) but at the same time it is also able to monitor other vessels near-by (fisheries patrol). While a coast guard vessel may also be able to do the same task, it does not carry with it the same enforcement "presence" inherent in a warship. In the end the strongest argument in support of using the navy to fulfil constabulary duties rather than a coast guard comes down to the inherent deterrence value of a warship. A coast guard may patrol the waters just as effectively but when boarding a vessel suspected of illegal fishing, the presence of a warship on the horizon makes the fishing vessel pay much closer attention because a warship represents the ultimate authority of the state itself and as such is *the* enforcement instrument of last resort. Thus the job is both effective and efficient.

To this point we have examined broad concepts of both constabulary and global capabilities of navies. Our discussion of UNCLOS, for instance, and the responsibilities of good governance within the Exclusive Economic Zone has indicated specific capabilities needed for the policing role of a coastal security force while the examination of global navies demonstrates the range of actions which navies can perform. This brings us to our next question which is, what do medium power navies do and specifically, where does Canada fit?

Chapter Two:

The Concept of a Medium Power Navy and its Applicability to Canada

Toward a Definition of "Medium"

The previous discussion developed a general understanding of the polar ends of the spectrum of capabilities between which a medium maritime power falls. However, because the term "medium" is such a nebulous concept, it may be a little more helpful to look somewhat closer at this term. To this end, a concise discussion of the academic debate on this topic is essential to find consensus among this body of literature and then pin down a solid definition from which to work.

Rear-Admiral R.J. Hill (RN)

To start, Rear-Admiral R.J. Hill's focus on this topic appears to be broad based and all-encompassing which is evidenced in his definition of a medium power which lies "between the self-sufficient and the insufficient."[1] Thus, unlike other authors, Hill's analysis is much more subjective in nature. He states specifically that a medium power is one which regards itself of sufficient weight and substance to be in charge of its own destiny and thus is able to keep under national control enough means of power to initiate coercive actions of which the outcome will be to preserve vital interests.[2] To Hill, vital interests means the extended interests of the state as well as interests concerned with national betterment. Interestingly, Hill does not confine this to political independence or

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[1] Rear-Admiral R.J. Hill Maritime Strategy for Medium Powers (Annapolis: Naval Institute Press 1986) p. 20.

[2] Hill, p. 20

to a specific territory such the contiguous seas but to extended interests which could be well outside of the coastal seas. The means of power used to control these vital interests is not only military in nature but includes other elements of power. In this instance, Hill is not specific in what he terms as "other elements of power" but one can assume that at the very least he means political and economic power. This would involve commanding its own resources in a crisis situation both in terms of personnel and equipment.

Furthermore, a medium power navy must be able to initiate and sustain an event which has a favourable bearing on the state's vital interests at sea.[3] The most important point is not so much the initiation of such an event but the assurance that there will be a satisfactory outcome. According to Hill, this may include pressure on both friends and foes. Finally, Hill argues that a medium power must be able to successfully use coercive power in order to influence events. The reason for this is because military power reinforces other political and economic action. Thus, if its bluff is called, a state can still use its military to persuade the offending state to do its will.

Eric Grove's Typology of Navies

Eric Grove adds to this discussion by establishing a typology of navies which rank from number one (Major Global Force Projection Navy - Complete) to number nine (Token Navies).[4] It is important to note that Grove bases his assessments purely on the

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[3] Hill, p. 21

[4] Eric Grove The Future of Sea Power (Annapolis: Naval Institute Press 1990) p. 236-240.

functions of the navies and the tasks they perform not on the capabilities which, in this paper, we are more interested in understanding. Unfortunately his analysis does not include political, economic or social aspects of the state. Having said that, however, this analysis provides for a different point of view.

The "medium" range of Grove's typology consists in ranks three through seven. It is not necessary to look at all of the levels Grove discusses but a closer look at a few of them may help to understand Grove's idea of a medium power navy.

Grove's third rank (Medium Global Force Projection Navy), made up of only Britain and France, begins an assessment of medium. This involves some carrier and amphibious assault capabilities, sea control surface forces, SSNs and SSBNs. Also included in this category is the ability to conduct one 'out of area' operation and engage in higher level naval operations in seas closer to home.[5] Navies of the fourth rank (Medium Regional Force Projection Navy) possess the ability to project force into the adjoining ocean basin. Because Canada is often in European waters, it is found within this rank. Moving quickly to the seventh rank (Inshore Territorial Defence Navies) Grove sees these forces as having primarily inshore territorial defence capabilities. Thus these navies are able to perform both constabulary tasks as well as engage in coastal combat meaning that they possess missile-armed, fast-attack craft and sometimes a limited submarine capability.

Grove's assessment of navies provides for some interesting discussion. This is the

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[5] Eric Grove, p. 238

case not only because of questionable ranking but more because of the basis of his assessment. Specifically, Grove's ranking is based entirely upon his own assessments of the functions of various state's naval craft and not necessarily upon the actual capabilities of the navy itself. Thus Grove ignores important political considerations and the political will of the state to engage in operations which the vessels are capable of performing. In and of itself, this could be the determining factor as to whether the navy is used outside state waters or operates only as a coastal defence navy in spite of higher capabilities. In a strictly physical and theoretical sense, this ranking provides for a good breakdown of various states physical abilities as well as a general definition of the physical side of a medium-power navy.

As we have seen, Grove's assessment of "mediumness" is considerably different from Hill's. Most obvious is that Hill's criteria are based upon unquantifiable factors such as political will and strength outside of the military arena. Therefore, unlike Grove, it is not necessarily the military hardware possessed by the state which acts as a determining factor but the decisions the state makes and their ability to independently follow through with their choices. Thus, as Hill points out, the ultimate criteria for a medium power is the ability for the state to autonomously conduct its activity.

Hu and Oliver's Constabulary Navies

A final definition of medium power which may prove to be somewhat more useful can be found in the work by Nien-Tsu Alfred Hu and James K. Oliver. Although Hu and Oliver write specifically for those interested in constabulary navies, their approach is

useful in assessing navies in general. Hu and Oliver borrow heavily from Ken Booth's work and argue for what they term as a "functional analysis" of the world's navies. In essence, this approach attempts to understand the nature of naval power according to actions they perform and have the capacity to accomplish. Thus, the focus of their work is not specifically on operational capability but on policy objectives as a way to select a naval force.[6] A navy's capabilities, then, should match its state's interests. This approach allows a state a better visualization of the purpose of its navy and aids in naval planning and strategy.[7] Furthermore, through this analysis, a navy is judged contextually.

While this may be seen as a terribly simplistic method for assessing a navy, its simplicity is probably its biggest asset. Like Booth, they ask the fundamental question "what are [the state's] interests in the use of the sea?"[8] The answer to this question defines a state's foreign policy goals as well as its naval strategy.

Hu and Oliver's approach is effective for another reason - it makes the very intimate link between a state's foreign policy and its military strategy. In a very basic way, this may be the deciding factor between a constabulary navy and a medium power navy. That is, a state's interest only in the contiguous seas and self defence would thus result in a constabulary navy in spite of equipment which may be able to conduct naval operations

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[6] Hu and Oliver, p. 40

[7] Hu and Oliver, p. 40

[8] Hu and Oliver, p. 40

outside of the contiguous or economic zones. This can be evidenced by the United States Coast Guard (USCG) which is, in some cases, better and more effectively armed than many other states' navies but the mandate of the USCG is not to act beyond the 200nm Exclusive Economic Zone in its primary mission.

Definition of a Medium Power Navy

Can we step back now and find a common ground for which we can establish a useful definition of the term "medium power navy"? In fact, there are three definite criteria which arise from the above theories.

First, all seem to agree that in a physical sense, a medium power navy must possess some attack capability and more likely be able to attack beyond its 200nm EEZ. While Hu and Oliver do not engage in detailed discussion on this topic, they allude to this in their discussion on small and constabulary navies. In their estimation, constabulary navies are defined by their adherence to UNCLOS.

Second, unlike a constabulary navy, a medium power navy is often used in support of the state's foreign policy. Hu and Oliver make this link obvious in their discussion of Booth's functional approach to navies. Hill also makes this link, although he does not state it directly making it only as an assumption instead. For instance, he discusses the ability for a medium power navy to initiate and sustain an event which will have a favourable outcome. Grove also sees the link between these two concepts. However, because Grove has limited himself to a discussion of the physical aspects of navies, this concept is really no more than an underlying assumption in his work and unfortunately

never dealt with directly.

Finally, and most important, given that to this point we can conclude that a definition of a medium power includes both the physical capability to attack as well as the foreign policy desire to possess such a fleet, this would suggest that the definition of medium power extends beyond the physical aspects of a fleet to encompass entire aspects of a state. For instance, the state must possess the economic ability to be able to purchase and run such an expensive commodity. That means that there must be strong political will leading to a commitment of resources toward the building and maintaining of a navy. Just as important, a state must also have the intellectual and technological ability to operate and control this equipment which means that there is domestically developed education and expertise in this field. This becomes even more significant if the state is intent upon building and maintaining a defence industrial base. Therefore, a medium power navy cannot be dictated only by government but must be within the psyche of the country as a whole. In essence, at the heart of being a medium power navy is a connection to the state's *maritime* interests of both private citizens and government.[9] Consequently, the actual capabilities of this kind of navy will lie in the connection of the state (public and private) to the importance it places on its waters. Appendix A at the end of this paper can perhaps best illustrate the definitional distinction between global, medium and constabulary navies.

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[9] Peter Haydon, "Emerging Concepts of Sea Power and Maritime Strategy", p. 3. See also, Till, p. 13.

The Functions of a Medium Power Navy

As mentioned earlier, the capabilities of a global navy are relatively straightforward as are the capabilities of a constabulary navy but the capabilities of a medium power navy can be nebulous, because of the "mixed" functions they fulfil. For instance, global navies are responsible for presence, strategic deterrence, power projection and sea control. Domestic navies, on the other hand, are responsible for policing the contiguous seas and establishing a presence throughout the state's waters. Medium powers fall somewhere in the middle of the capabilities spectrum we have studied which presents a number of problems. Specifically, how does a navy act effectively as both a police officer of the state's oceans as well as being a diplomat and a symbol of the state's sovereignty abroad? This is the nature of the problem facing most of the medium power navies today, especially the Canadian Navy.

With this in mind, this section will take a detailed examination of the roles of a medium power navy. While much of the theory surrounding these roles is borrowed from global navies, I have modified it to the basic activities and capabilities of medium power navies. Within the scope of this text, a discussion of the functions of a medium power navy is important because it will aid in our later analysis of the Canadian Navy. In general, there are five traditional functions which medium power navies are expected to be able to perform: deterrence; power projection, diplomacy and presence; sea control; and constabulary tasks. Since I have already covered constabulary tasks in detail in our earlier discussion on small navies, I will address only the first four here since they differ considerably from the expected functions of a global navy.

Before discussing these roles, however, it is important to note that most of the activities around which this discussion will focus occur during peace-time. An important point in this regard is made by James Cable when he argues that in the years since the Second World War, the line between peace and war has become blurred.[10] Thus, while a navy may engage in an activity which during one point in time is seen as an act of war, the same activity, such as a blockade, may be seen differently in a time of declared peace. Testimony to this dichotomy is evidenced in the conflicts in the Middle East. There was, for instance, a clear state of war between Israel and Egypt from 5 June to 10 June 1967 (the Six Days War). However, outside of that time frame, more Israelis have died at the hands of the Egyptians than during the conflict itself.[11] The question then becomes can these two states be said to be at peace? What we can derive from this observation is that global and medium power navies today will be technically "at peace" but performing war-type activities. This being the case, it becomes even more important to examine both the war and peace functions of medium power navies since it will affect foreign policy as well as the broader aspects of the state.

Naval Deterrence

Some authors address the concept of deterrence for medium power navies as

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[10] James Cable Gunboat Diplomacy (London: MacMillan 1981) p. 36.

[11] Cable, p. 36

diplomacy since it differs considerably from deterrence by a global navy.[12] However, traditional deterrence still plays an important role for medium power navies especially within multinational force operations and therefore it needs to be discussed in a different section than naval diplomacy.

As with much of this topic, there is controversy surrounding a definition of this term. Ken Booth, for instance, sees deterrence as part of a military role for navies.[13] Within this role, the aim is three-fold. First the state wants to be able to negotiate in a potential conflict situation from a position of strength. Thus, the state wants to be able to persuade a target state to not behave in a certain manner without resorting violence in order to force this. Generally this process involves some type of political demonstration of naval force. The second aspect of deterrence Booth sees as important is manipulation, or getting the opposing state to acquiesce to your will. However, in order to engage in this kind of activity, it is essential for a state to have the right size and shape of force which means that they have to possess a relatively large naval fleet. The final aspect of deterrence is acquiring prestige which is a by-product of over-all national behaviour. Thus it would include naval aid, port visits and ceremonial activities. For medium power navies, Booth's type of deterrence may present some problems because these states may not have all of the military hardware necessary to achieve all of it. In spite of this, Booth does

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[12] Ken Booth, for instance, places this concept of deterrence in a subset of naval diplomacy.

[13] Ken Booth Navies and Foreign Policy (London: Croom Helm 1977) p. 19.

makes some important points in this regard.

The advent of the nuclear bomb in the years following the Second World War made for complications in the role of deterrence, especially for medium power navies. Traditionally, deterrence meant to make military preparations to convince the opponent that military action would be unprofitable.[14] However, with the nuclear age, it became more difficult for conventional navies (which include most medium power navies) to act in this capacity. This is because deterrent preparations are intended to dissuade *all* potential enemies from military action. Yet because of nuclear weapons, this aspect of deterrence was left only to the superpowers. Consequently, medium power navies today have come to be responsible for deterrence against other equal or lesser sized navies or when operating together within a multinational force.

Naval Diplomacy and Presence

A further function of medium power navies is naval diplomacy and presence. While the concept of deterrence is often seen within the war-time lens, diplomacy is regarded as a peace-time action. It is, in fact, closely related to the inherent capabilities of a medium power navy. Recall that a definition of a medium power navy, as determined earlier in our discussion, involved action in support of the state's foreign policy. With this in mind, we can turn to James Cable's definition of naval diplomacy which is a method by

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[14] Hill, p. 80

which international relations are adjusted and managed by ambassadors and envoys.[15] Thus, it is a process in which the state's foreign policy advisors are in large part responsible. The expectation of the navy, then, is to "Be There".[16]

(A) *Traditional Diplomacy*

On the whole, there are two recognized types of naval diplomacy. The first is typified by Hill as "normal circumstance" or actions during regular peace-time operations of the navy in which gestures of good-will and confidence building are the focus.[17] An example of this would be "port visits" to foreign ports by the warships of a state wherein the objectives can range from a simple gesture of good-will to former enemies; to alliance building; gaining information; informing other states, impressing; and for advancing economic interests amongst other reasons. The navy has been recognized as the most effective instrument of the military to engage in this type of peacetime operation since they are self-contained. Moreover, surface vessels are often effective since they can openly project state presence and good-will. Both Haydon and Hill amongst others recognize too that this vessel is, in essence, an extension of national sovereignty.[18] Given this, such

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[15] James Cable, Diplomacy at Sea (Annapolis: Naval Institute Press 1985) p. 81.

[16] Cable, p. 82

[17] Hill, p. 98

[18] See Hill, p. 98 or Peter Haydon, "The Navy's Foreign Policy Role: A Forgotten Factor?" Forum Oct 1991 p. 12.

deployments are akin to a visit from state officials.

(B) *Coercive Diplomacy*

Coercive diplomacy has traditionally been referred to as "gunboat diplomacy". According to Cable, gunboat diplomacy is the use or threat of limited naval force, other than in an act of war, in order to secure advantage, or to avert loss, either in the furtherance of an international dispute or else against foreign nationals within the territory or the jurisdiction of their own state.[19] Similarly, Stansfield Turner defines "naval presence" as the use of naval forces, short of war, to achieve political objectives.[20] To establish that an act performed by a state is an act of coercive diplomacy, Cable maintains that it is essential that the act "should have occurred in the furtherance of a dispute between two nation-states".[21] Thus, unlike naval diplomacy under normal circumstances, coercive diplomacy has specific objectives. It is, however, not seen as an act towards war but an act intended to avoid war.

According to Turner there are two tactics used to achieve the state's objectives. The first, preventative deployments, is an initial show of presence during peace-time.[22] This is a fine line to walk because it is essential that forces are relevant to the kinds of

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[19] James Cable, Gunboat Diplomacy (London: Macmillan 1989) p. 39.

[20] Turner, p. 14

[21] Cable, Gunboat Diplomacy, p. 35.

[22] Turner, p. 14

problems which may arise but concurrently are not inferior to other navies which may be found in the waters near-by. Further complicating the situation is that this deployment must prove itself to be a credible threat which is prepared to have its bluff called. A good example of this type of diplomacy is the very recent 1998 Gulf crisis where the states allied against Iraq, led by the United States, engaged in peace talks while there was a substantial military build-up in the Persian Gulf. In the end a war was averted in large part because of the significant threat of destruction. The second type of presence is what is known as reactive deployments wherein a state is responding to a crisis. Turner cautions against using this kind of diplomacy since it can result in over-reacting and sending a force larger than is necessary leaving little room to increase the threat level later. It is important, then, to correctly assess the threat and then address it accurately.

In light of these definitions of diplomacy and presence, what are the needed tasks for the medium power navy? Certainly amphibious assaults, air attacks, bombardments and blockades cannot all be performed by a medium power navy at the same time as methods of diplomacy and presence. For the purposes of our discussion, Turner's comments must be seen in light of his position as a member of the United States Navy, an organization which is well-entrenched in its Mahanian roots, and thus while his comments are helpful, they may not be an ideal role for the medium power navy.

Yet diplomacy in general still plays a significant role for the medium power navy. For instance, in Canadian naval missions abroad, port visits to South Africa, Asia-Pacific and Latin American countries have had a positive impact on Canadian relations and trade

with these countries.[23] Similarly, both the British-style of naval diplomacy which involves steaming around to ports and the French style of working from a base close-by has proven to be effective in this regard. The British ship HMS *Fife*, for example, happened to be close to Dominica in 1979 when a hurricane struck and thus were able to aid the population establishing amicable relations between the British and the Dominicans.[24] Thus, as an extension of foreign policy, naval diplomacy lends itself to be an effective tool for the medium power navy.

Sea Control

A third role a medium power navy must be able to achieve is the establishment of sea control. Unlike the concept of naval diplomacy, command of the sea has evolved over time. Originally discussed by Sir Julian Corbett, control of the sea was the object of all naval warfare. However, Corbett acknowledged that in normal situations neither belligerent has control of the sea and in fact that the sea cannot be conquered.[25] This is mainly because the sea is not susceptible to ownership. That is, a state cannot impose its armed force upon it like it can on the land and thus the only sure method of command is

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[23] Discussions with the Commanding Officer of HMCS Halifax who visited South Africa and participated in Exercise UNITAS with Brazil, Argentina, Uruguay and the United States from August-December 1997.

[24] Hill, p. 97

[25] Sir Julian Corbett Some Principles of Maritime Strategy (New York: AMS Press 1972) p. 89.

what the state can secure for itself and deny to its enemy. Geoffrey Till has also stipulated that it is impossible to have absolute command of the sea but instead insists that a state can have control of maritime communications.[26] The term 'command of the sea', in fact, can be misleading since it can encourage strategic error by inadvertently increasing enemies or neglect a state from exercising command when they may have it. Today, emphasis has shifted to a limited concept of sea control. Hill defines this new concept as the "ability to operate with a high degree of freedom in limited areas and for limited periods of time."[27] Concurrently, Till suggests that this is a positive development because it is an action which is not reserved for superpowers alone but can be accomplished by medium power navies as well.

Again, in his article, "Missions of the U.S. Navy", Turner outlines how this notion pertains to a superpower navy. While for this discussion most of his points are not pertinent, there are two specific actions that he reviews which are of direct relevance for medium power navies. This is what Turner terms as "passive techniques" for sea control.[28] One of these techniques is "deception" which involves deceiving the enemy enough to frustrate them to the point that they are unable to attack. The second technique, "intimidation", revolves around the perceptions of others states towards our ability to

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[26] Geoffrey Till Maritime Strategy and the Nuclear Age (New York: St. Martin's Press 1982) p. 131.

[27] Hill, p. 81

[28] Turner, p. 9

control the sea thus affecting political and military decisions. This is of direct relevance to the medium power navy for a number of reasons. Recall that our established definition of a medium power navy involves foreign policy considerations as well as a broad-based definition of the state's maritime interests and finally the ability for the state to involve itself in operations with some sort of offensive measure. Passive techniques of sea control, in fact, address most of these issues. This is because states with medium power navies are not necessarily well equipped enough to engage in the larger aspects of sea control such as open area operations or local engagements but are able to psychologically affect the enemy in a similar fashion thus destroying not only military operations but more importantly affect shipping and trade.

Power Projection

The last traditionally recognized function of a medium power navy is power projection. In general, this can be seen as support to operations on shore by naval forces. According to Turner, there are three aspects to power projection.[29] First is an amphibious assault which involves securing territory from which either a land battle or air strikes can be launched. Amphibious assaults are also important for destroying enemy facilities or to secure land to prevent enemy use. Secondly, power projection involves naval bombardment. This is direct support for troops operating on or near a coastline or to harass military and civilian operations of the enemy which are operating close to the shore.

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[29] Turner p. 10

Finally, this role involves tactical air power. The purpose here, again, is to use the ship for aircraft launch in order to support ground operations.

As the above description would suggest, power projection involves numerous ground troops in addition to sophisticated naval craft and aircraft. In light of this, how many medium power navies are able to continue to engage in this action? In fact, in recent years there has been a loss of interest in this kind of activity by medium power navies.[30] The reasons for this are multifarious but include the extensive specialized nature of such operations which in turn demand considerable resources. Thus, like strategic deterrence, this role may be heading to 'superpower-only' status unless medium powers band together, usually with a major power.

Appendix B at the end of this study outlines the range of functions of a medium power navy in comparison with global and constabulary navies.

Multinational Operations (MNOs)

One word must be said about multinational operations. While some of the above missions may be losing their flavour for medium power navies due to budget constraints, they have become more commonplace in multinational force operations. In effect, for medium power navies, MNOs straddle the border between medium and global missions. In the post-Cold War days of cut backs to military budgets, one navy may be unable to engage in lengthy operations far away from shore (with the exception of some of the

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[30] Hill, p. 121

global navies such as the French Navy, USN or the RN) but when placed together, this mission can be much more easily accomplished.

One example of this is power projection. As mentioned previously, this involves a number of ground troops and extensive equipment which most medium power navies do not have. However, when working together, and with each state's navy being responsible for a different aspect of the mission, this goal then becomes achievable. A more realistic example of multinational power projection can be seen in the Gulf War in 1990-91.[31] In this instance, naval forces from a number of different countries worked together to defeat Iraq. Moreover, naval presence is similar to some of the actions already performed by medium power navies. Recently, Operation *Sharp Guard*, the maritime monitoring and interdiction operation in the Adriatic Sea, demonstrated the effectiveness of multinationalism both politically and militarily. In its response to the UN, NATO was able to quickly provide two ships for patrol and, in comparison to the WEU, which also supplied two ships, command and control were superior.[32]

The ability to participate in MNOs has become increasingly important as instances of multinational force operations, under the aegis of the UN, increase. Since 1988, for instance, more UN peacekeeping missions have been authorized than in the previous 40

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[31] For a more detailed discussion (not just naval) see Ian Johnstone Aftermath of the Gulf War: An Assessment of UN Action International Peace Academy Occasional Paper (Boulder: Lynne Reinner Publishers 1994).

[32] Roger Palin Multinational Military Forces: Problems and Prospects (Oxford: Oxford University Press 1995) Adelphi Paper #294 p. 27.

years and the number of active UN operations has more than doubled since January 1991.[33] The role of navies in this respect have extended from providing humanitarian assistance to maritime peacekeeping to shows of force.[34] Medium power navies, then, fit well into MNOs and can bring together both global and medium power navies.

Canada as a Medium Power Navy

Having finished with this theoretical examination of naval functions, we must now ask where Canada "fits" in this range of tasks. Certainly Canada has a navy with both constabulary and global interests, but does it fall closer to either end? The next chapter will look more closely at determinants which shape the Navy but on a strictly definitional level it is important to establish at this point in time that Canada is a medium power naval state.

Recall that the definition of a medium power sets out three criteria. First, the state's navy must possess attack capability beyond the 200nm EEZ. Currently, the Canadian Navy has 12 new Canadian Patrol Frigates (CPF) which have sailed to all parts of the globe for diplomatic port visits, support in a time of crisis and to work with allies. These frigates are capable of steaming of 4,500nm at an economical speed and are

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[33] Jeffrey Sands Blue Hulls: Multinational Naval Cooperation and the United Nations (Alexandria VA: Centre for Naval Analysis 1993) p. v.

[34] For a more detailed discussion of these and other roles see: Sands p. 10-23.

designed for work on the rough north Atlantic waters.[35] They have a complex weapons system which include a towed array sonar system and a number of above water radars. Weapons on the frigate include a 20mm/6-barrelled Vulcan Phalanx gatling gun which fires 3000 rounds per minute; Honeywell MK 46 torpedoes and a variety of electronic countermeasures.[36] The frigates were used in the recent Gulf crisis and in other peacekeeping missions off of the coast of the Adriatic. There is also currently in service an auxiliary oil refueler (AOR) aiding in the ability of the Navy to act in foreign waters. While a more detailed study of the capabilities of the Navy is undertaken in Chapter Three, this evidence is enough to conclude that physically Canada has the ability to act beyond the 200nm EEZ and thus meets one of the requirements of the definition of a medium power.

A second criterion lies in the way the state uses its navy to support foreign policy. In Canada, the use of the Navy as an instrument of foreign policy can be found in the 1994 Defence White Paper.

1994 Defence White Paper

The White Paper outlines the basic missions that the government expects the military and specifically the Navy to fulfil and, as a consequence, the capabilities it must

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[35] --- "Welcome Aboard: HMCS Halifax FFH 330" (pamphlet) (Halifax: Department of National Defence, 1994) p. 6

[36] "Welcome Aboard: HMCS Halifax FFH 330" p. 7

possess.[37] The third chapter of this policy document, entitled "Combat Capable Forces" details the general missions of the military. The government recognizes that Canada "cannot dispense with the maritime, land, and air combat capabilities of modern armed forces... We must maintain a prudent level of military force to be able to deal with challenges to our sovereignty in peacetime, and retain the capability to generate forces capable of contributing to the defence of our country."[38] On an international level, Canada maintains a commitment to collective security and peacekeeping since abandoning this would result in a loss of "a significant degree of respect and influence abroad." In this respect, Canada's goals are threefold. It is committed to "the deterrence and reversal of aggression, the peaceful settlement of disputes and the relief of civilian populations."[39] To achieve these goals in today's strategic environment, the White Paper acknowledges, requires a "capable fighting force". For the military as a whole, the government is also committed to collective defence in the form of NATO and NORAD. To meet these commitments, the government has stated its interest in maintaining a "multi-purpose, combat-capable force" and defined this as being "armed forces which are able to operate with the modern forces maintained by our allies and like-minded nations against a capable

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[37] For a more extensive academic discussion of this document see: Joel J. Sokolsky Canada, Getting it Right this Time: The 1994 Defence White Paper (Carlisle Barracks, PA: US Army War College 1995).

[38] 1994 Defence White Paper, p. 12

[39] 1994 Defence White Paper, p. 12

opponent."[40]

Domestically, the military is responsible for the defence of Canada through the protection of sovereignty. The roles for the military which meet this mission are aid to the civil authority, securing the boarder against illegal activities, the protection of fisheries and the environment, disaster relief and finally to perform search and rescue operations.[41] The White Paper and other publications have argued convincingly about the importance of the ocean to this vast land mass.[42] Canada has the world's longest coastline measuring 243,792 km running along three oceans; the Atlantic, the Pacific and the Arctic. The total ocean mass of the EEZ, in fact is just over 6 million km^2. Economically, Canada is heavily engaged in maritime trade. Over 350 million tonnes of cargo passes through Canadian ports each year, over two thirds of which is foreign.[43] Moreover, the fishing industry is a valuable part of the economy contributing $2.7 billion in exports in 1988.[44] While problems in recent years with the fishing stocks have decreased this number, Ottawa hopes

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[40] 1994 Defence White Paper, p. 14

[41] 1994 Defence White Paper , p. 20-26

[42] For a detailed summary of the importance of oceans to Canada see: Fred W. Crickard and Peter T. Haydon Why Canada Needs Maritime Forces (Nepean: Naval Officer's Association of Canada 1994). See especially page vii for "ocean facts" for Canada.

[43] Crickard and Haydon, p. 7

[44] Crickard and Haydon, p. 9

that with effective management of this resource that it will once again rise in prominence. Having said that, the fishing industry is still an important part of Canadian life in both the Atlantic and the Pacific regions. Finally, offshore oil resources have become an important part of Canada's economy. Notably the Hibernia Project off the shores of Newfoundland and the Scotia Shelf off the coast of Nova Scotia have incredible potential for production of this valuable resource. Given these figures, Canada has a significant investment in the safety of her oceans.

Finally, the White Paper outlines the Memoranda of Understanding (MoU) the Navy holds with other government departments in order to police these waters. This includes, for instance, fisheries protection to which the government "will devote a significant number of flying hours and ship days to fisheries patrol."[45] In addition, the Navy participates in environmental surveillance, protection of the boarder against illegal activity and general surveillance to protect sovereignty.[46] Thus, the Navy is used extensively in both projecting Canadian values abroad and protecting the seas at home.

In getting back to determining the Navy as a medium power, the third and final criterion which is necessary for a medium power navy to have is support from the state as a whole, including both the public and private spheres. While this is dealt with in more detail in the next chapter and in the concluding chapter, it is important to note now that although the Navy enjoys some support from the defence industrial base and lukewarm

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[45] 1994 Defence White Paper, p. 17

[46] 1994 Defence White Paper, p. 16-17

support from the Canadian public, it has been facing tremendous obstacles with regard to funding from the government. As a result, it is not clear how well the Navy is able to claim that it has a strong base of support inside and outside of the government. The ambiguity the Navy faces in meeting this criteria makes it difficult to put this organization at a specific place on the spectrum of navies which we have examined.

In resolving this difficulty I believe that it is important to examine those determinants which shape the Canadian Navy. In the long run, this will allow for a better understanding of the nature and functions of the Navy as well as enable us to make some specific suggestions for the Navy for the future.

Chapter Three

The Shaping of a Maritime Force: Factors Influencing The Canadian Navy

Determining The Canadian Navy

Earlier the question was raised: what kind of Navy does Canada have and why does it operate the way it does? As we have seen, the Canadian Navy has to some degree always been involved in aspects of both foreign and domestic policy. In the years before the First World War and also during the interwar years, the Royal Canadian Navy, as it was then called, patrolled off the shores of Canada and seldom strayed far. Yet following the end of the Second World War, the Navy has acted internationally on behalf of the Canadian government dozens of times.[1] What main factors have driven maritime defence policy and planning within recent years? The intent of this chapter is to look at determinants which have moulded and constrained Canada in both acquiring and maintaining its navy, especially since the end of the Cold War. Ideally a study of this sort would involve specific measurements which could then be drawn up on a balance sheet and where a calculated conclusion could be reached. However, since this investigation is of a more policy oriented nature, it becomes more difficult to follow this route, especially in light of the fact that most of the material under consideration is not numerical but has some aspect of policy attached to it. Thus, this study will attempt to understand the factors which shape the Navy in order to come up with an accurate and useful analysis of the effectiveness of the Navy as a whole. As this study is designed as an analysis of the Navy within its medium power role, it is important to examine twoaspects of each of the

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[1] For more detail of the recent foreign policy role of the Navy see: Lt (N) Bruce Fenton. "Foreign Policy and Navy Forces: A Canadian Perspective" Maritime Security Working Papers #3 (Halifax: Centre for Foreign Policy Studies, 1996) pp. 67-79

four determinants. First, determine what is demanded of the Navy and second, look at the actual work performed by the Navy. From these we can make an informed conclusion which accurately reflects both the demands on and performance of the Navy.

The main determinants for this study fall into four general categories: namely international and domestic political factors; the defence industrial base; the federal budget and a miscellany of smaller yet still important elements such as personnel and technology. The political factors will be "measured" through declaratory government statements of direction of the military; support the Navy gives to other government departments (OGD); alliance commitments and support; relationship with the United States Navy; and finally through other international political considerations such as support the government gives to NATO and the United Nations (UN). This will determine the domestic and international political environment in which the Navy is operating. The second factor which shapes the Navy is Canada's defence industrial base (DIB). Strength in the defence industry means that the Navy does not necessarily have to buy off-shore and thus has the capacity to maintain equipment more easily, not to mention the fact that having it can also aid in maintaining a strong economy which in turn will help keep political support. A study of Canada's defence industry must involve identifying the percentage of naval ships and related equipment built in Canada by Canadians and how much is imported. This and other factors will help to understand the strength of the defence industrial base. This set of determinants can be said to outline a Navy as constructed most realistically from policy set out by the government, from desires of our allies, and finally from what Canada can build itself.

Another determinant is the budget and economic pressures faced by the Navy. Examining these will involve analyzing the trend of decline in the amount of money the military receives in comparison to the cost of upgrades and new equipment. Moreover, the cost of alliance contributions needs to be considered in this section as well since this can detract from the amount of money the Navy has as a whole. Another factor in this area involves a study of a general miscellany of less easily categorized yet important considerations. For example, a study of the Navy must involve personnel considerations including skill levels of these people as well as the ability to attract new recruits to the Navy. Also in this day of gender equity, we will want to look at the impact the increase in women has had on the Navy. A further factor is technology. Although high tech computer systems can ease the strain of navigation, it also can present a number of problems, especially if one becomes too reliant upon such systems. Is the Navy too dependent on our own technology? While this may not be as precise an analysis, it is an important consideration and should be discussed. Finally, a last important factor to examine is possible future geopolitical trends. Within the last ten years, for instance, there has been a dramatic change in the global strategic situation, and any insights into the next decade will help to determine if the constraints which face the Navy today will allow it to meet the threats of the next millennium.

Political Factors

International Political Support

Let us begin by looking at Canada's international commitments. As mentioned,

Canada is committed to peacekeeping and to a continuation of collective defence and security through agreements such as NATO.[2] To carry out these commitments requires that a number of factors be considered, including interoperability with these navies as well as political support from these countries in the form of access to bases and training facilities. Thus, our first determinant to "measure" is alliance support. This can be done in a number of ways. First, we must examine the relationship between the Canadian Navy and one of its most significant allies, the United States Navy. While the Canadian Navy participates in activities with other Commonwealth and NATO countries, the closest tie, as measured by exchanges, joint exercises and level of interoperability, is with the United States. On average, there are 56 personnel exchanged between the two navies annually. This involves both officer classifications and enlisted personnel at all levels.[3] While this may not seem like a significant number of people, unlike any of Canada's other allies, it is enough to have an on-going, fully staffed office in each other's capital. Furthermore, there are organizational ties between the two Navies in the form of the Permanent Joint Board on Defense (PJBD) and the Military Cooperation Committee (MCC) both of which involve basic security plans and military cooperation for Canada and the United States and bring together both military and civilian personnel (although the MCC is only military

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[2] 1994 Defence White Paper, p. 1

[3] Statistics from US-Canada Naval Exchange Program, Ottawa. A naval exchange would be a posting to each other's navy for anywhere from six months to two to three years.

personnel).[4]

Another indicator of the relationship is joint exercises conducted between the Canadian Navy and the USN. Although there is not one exercise which is exclusive to these two navies, annually, the Canadian Navy participates in a number of exercises either with NATO or with the USN in other exercises. One of these is UNITAS, a naval exercise conducted off the coasts of South America organized by the Organization of the American States (OAS). The aims of this mission include fostering goodwill between the various navies and teaching the South American navies allied standards of communication. Canadian participation in these exercises increases interoperability with the United States Navy and improves relations. The Canadian Navy also participates in exercises with the NATO's Standing Force Atlantic (STANAVFORLANT) to which one ship is regularly posted and which visits allied ports around Europe thus furthering NATO political objectives by displaying member solidarity and produces further interoperability.

Participation in exchanges and exercises improves communication with other navies but operational interoperability, the most important quality, can be a difficult goal to attain. Interoperability, in essence, is the ability of two or more navies to work closely together in one operation. In some instances this can result from having compatible computer systems or communication standards. In any case, these skills are a necessity in

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[4] The PJBD and the MCC have both been important contributions to Canadian security since they were established during the Second World War. For more information on Canadian-U.S. defence cooperation see: Robert Van Steenburg "An Analysis of Canadian-American Defence Economic Cooperation: The History and Current Issues" David Haglund (Ed) Canada's Defence Industrial Base (Kingston: Ronald P. Frye and Co. 1988) pp. 189-219.

order for Canada to achieve its goals as laid out in the White Paper. While this study has little interest in specific communications and computer systems, it is interested in the overall compatibility between those of the Canadian Navy and those of other navies, specifically the USN since it is both our most significant ally and one of the only truly global powers. For a more accurate assessment in this area, it may be helpful to turn to some experts in the field. John Noer from the Center for Naval Analyses observed predeployment training for HMCS *Ottawa* set to go to the Persian Gulf. *Ottawa* was teamed up with a US Navy Battle Group centred on the CVN *Abraham Lincoln* both tasked to maintain peace on the high seas and conduct United Nations mandated Maritime Interception Operations (MIO) against Iraq. Noer states that "HMCS *Ottawa* is fully integrated into the Battle Group from an operational perspective." Furthermore, Noer lauds the communications equipment on the Ottawa as that which is "fully compatible with that of the US naval vessels".[5] On perhaps a more official scale, there are levels of interoperability within NATO standardization. While the particulars of this rating scale are classified as secret, it is known that Canada is rated at the high end of this scale.[6]

Although not as significant a relationship today, there are some close ties between the Canadian Navy and Britain's Royal Navy (RN). Again this can be seen in the form of naval exchanges but also by way of equipment sales and joint training. The most recent

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[5] John H. Noer "The Role of Navies in the 21st Century" Unpublished paper from the Ninth Dalhousie Sea Power Conference, Halifax, N.S. 30 May 1998 p. 8

[6] Discussions with staff at MARLANT intelligence.

example, of course, is the submarine deal between Canada and the UK where Canada will acquire four of the *Upholder*-class diesel submarines to replace Canada's aging *Oberon*-class submarines. In exchange, the RN gained a number of benefits including continued access to Canadian training bases at no charge to the United Kingdom. More important, however, this kind of deal is critical to the continued support for Canada's Navy on an international level. Such an agreement has been facilitated by exchanges of Canadians to the UK to train on the new submarines, thus making the change-over more efficient.[7]

While Canada's Navy may be interoperable with other navies, it means little if it is unable to reach the areas where it is needed to project Canadian interests and participate in international operations. That being the case, Canada must have some degree of overseas support in the form of forward bases for refuelling and restocking. In this regard, Canada is party to a number of agreements which give the Navy this kind of access. For example, as part of the NATO agreement, Canada's warships are able to visit any other NATO country's ports at any time. A similar arrangement is in place among the Commonwealth countries giving the Navy port access on almost any continent.

Thus we can see that internationally, Canada has, on a political and operational level, significant support. Two global power navies, the USN and the RN, fully support the Navy and Canadians are fully interoperable with them. Consequently, Canada should have little difficulty in meeting its international naval obligations due to lack of overseas

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[7] Before this most recent submarine deal, there has been at least one Canadian submariner who spent two years on exchange with the RN on the *Upholder*-Class submarines. His experience will be invaluable as the new submarines come into service in 2000.

support.

Furthermore, through declaratory statements as seen in the White Paper as well as through continued involvement in international operations, this would strongly indicate political will to continue the Navy's role internationally. Since the end of the Cold War, for instance, the Navy has participated in many more international peacekeeping operations than during the entire 40 years of the Cold War. To demonstrate, during the Cold War the Navy was involved in only three operations for peacekeeping purposes.[8] Yet in the years following the Cold War, the Navy has acted in at least nine operations including in the Persian Gulf War in 1990/91 and in Haiti in 1993/94.[9] From this we can conclude that at least on a high level, both support from allies and political will in Ottawa exists for the Navy to continue to operate internationally.

Domestic Political Support and the Navy's Operations

In turning to domestic political considerations, however, there is a somewhat more complex picture to be painted. In theory, as was already mentioned, for a state to have a strong navy (or military in general) requires not only political support but also the endorsement of the citizens of the country so that it is an accepted part of the structure of

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[8] These were the UN Emergency Force (UNEF) in Egypt (Sinai) - 1956 - HMCS Magnificent; UN Forces in Cyprus (UNFICYP) - 1964 - HMCS Bonaventure; and the International Commission for Control and Supervision (ICCS) in the South China Sea - 1973 - HMCS Terra Nova and HMCS Kootenay.

[9] For more specific information see the Canadian Navy home page www.dnd.ca/navy/marcom.

the state. One way to measure that level of approval is in the form of public opinion polls. In recent years these polls have shown that there is not significant strong support for a military in general. A 1996 poll indicated that 55 percent of Canadians believe that Canada should continue to be involved in international peacekeeping operations while 43 percent believe that Canada should scale back.[10] While this is not specific to the Navy, it can be taken as somewhat of an indicator for this environment because it is one part of the military.

This lukewarm support has been transferred to the domestic political scene. A demonstration of this was the recent purchase of the search and rescue helicopter and the submarine deal. When there were rumours of the *Upholder* submarine negotiations with the UK, there was some disapproval expressed about the acquisition of submarines while some Hepatitis-C victims infected with the virus through the blood system went uncompensated. However, a more wide-scale upset took place after the announcement in 1998 to buy new search and rescue helicopters. Because it was perceived that so much money was wasted by the cancelling of the original deal, the media raised concern over the latest purchase in spite of the fact that the military was desperate for new helicopters.[11]

The most recent objectives of the Navy with regard to the defence of Canada are

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[10] Defence Newsletter Vol. 15, No. 8, August 1996, p. 6.

[11] The current search and rescue helicopter, the *Labrador*, entered into service in the 1960s.

quite diverse.[12] First, the Navy is expected to monitor and control activities within Canadian waters. A second objective is to provide humanitarian assistance and disaster relief to Canadians. Third, the Navy must maintain the capability to respond to search and rescue incidents such as airplane crashes or the sinking of ships. Two other objectives are the ability to respond to incidents of terrorism and provide aid to the civil authority. Finally, the Navy must assist other government departments in surveillance and in meeting their maritime objectives, especially the Department of Fisheries and Oceans and the RCMP.[13]

Working in support of other government departments (OGD), in fact, takes up a significant amount of the Navy's time and budget. In light of that, we will look more closely at both the demands on and the accomplishments of the Navy in this respect.

Working "in support" of OGD means that the Navy is not primarily responsible for enforcement but instead the Navy acts by providing these departments with equipment which they may be lacking in their own departments and which may prevent the departments from effectively enforcing laws. As already mentioned, the 1994 Defence White Paper outlines the general areas where the Navy aids OGDs. These include aid to the civil power, peacetime surveillance, protection against illegal activities, protection of

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[12] For a more detailed discussion of these objectives see: Department of National Defence, Defence Planning Guidance 1998 (Ottawa: Supply and Services Canada 1998) p. 3-6

[13] Department of National Defence, Defence Planning Guidance, p. 3-6. The Navy must respond to OGD within eight hours and is expected to be able to maintain activities for OGDs for up to 90 days.

the fisheries and the environment, disaster relief and search and rescue.[14] As a result the Navy works with a number of departments including the RCMP through support to the Solicitor General, the Department of Fisheries and Oceans (DFO), Department of the Environment, Department of Transport/Coast Guard, Employment and Immigration and others through Memoranda of Understanding (MoU). MoUs are written agreements to give certain government departments a specific amount of hours of surveillance time for their particular field. Each year these are negotiated often at the operational level and approved at a higher administrative level.[15] Today, the Navy provides OGDs with the surveillance, presence and response functions. A "presence" must be established throughout Canadian waters to deter illegal activity and enforce sovereignty. The Department of National Defence recognizes that "presence" is a threefold concept.[16] First, "surveillance" which involves the systematic observation of a maritime area with the object of detecting activity on, under or above the ocean surface. "Patrolling", another essential capability, is the physical presence of a naval unit within a maritime area with sufficient

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[14] 1994 Defence White Paper, p. 16-19.

[15] MoUs are documents which can be negotiated locally between OGD but they may also be large scale and international in scope. In this section I am interested only in looking at MoUs with OGDs. The Navy is responsible for approximately 20 MoUs both domestically and internationally. I say "approximately" because when contacting naval officials in Ottawa they did not have a specific number for which the Navy is responsible. In general MoUs are a low level operational item and thus specifics are known perhaps only by the section which is responsible for adhering to the MoU.

[16] Maritime Command The Naval Vision: Charting the Course for Canada's Maritime Forces into the 21st Century (Halifax: National Defence 1994) p. 13.

mobility to provide visible evidence of government commitment to the regulation of activity and enforcement of law. Finally, the navy must have the capacity to "respond" to situations which involves the ability to protect Canadian interests wherever and however they are threatened including through interdiction and elimination of a threat's source.[17]

In more concrete terms, the Navy, through its MoUs, dedicates an agreed number of hours to each government department. For instance, with respect to fisheries patrols, dedicated time has risen by almost 300 percent while Maritime Air Group has expanded its activity in this area by over 700 percent since the Cold War period.[18] This translates to 155 ship-days and 939 air patrol hours dedicated to the Department of Fisheries and Oceans in 1993. Since then, dedicated hours to DFO has remained about the same. In its annual report for 1997, MARLANT operations reported providing 700 hours to DFO with a total of 78 fisheries flights conducted by Canadian long range patrol aircraft, the *Aurora*.[19] Although the *Aurora* belongs to the Air Force, it works closely with the Navy. Additionally nine "fisheries patrols" were conducted by the Navy which totalled 144 days. On average, each ship was out on patrol for approximately 16 days, although some were

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[17] Maritime Command, p. 13.

[18] Vice-Admiral Peter W. Cairns "On Course for the Future: Canada's Maritime Forces in the Post Cold-War Era" Canadian Defence Quarterly, May 1994, p. 5.

[19] Department of National Defence, "1997 Unpublished MARLANT Annual Report" 22 April 1998 MARL: 2000-SUPT (N00 COMD) p. 3.

out as long as 21 days while others were only out 12 days.[20] Officially, the Navy is currently responsible for 125 sea days on the east coast (MARLANT) and 30 days on the west coast (MARPAC).[21]

In order to ensure that the Navy is able to effectively work with OGDs, there are a number of consultative measures in place. For instance, as per the recommendations of the Osbaldeston Report in 1990, the Inter-departmental Program Coordination and Review Committee (IPCRC) was established which has worked on the management of demand and supply for the provision of services between departments. This has involved interoperability challenges to report and equipment standardization. The committee was further broken down into three on-going working groups: communications, concepts of operations and surveillance.

Some signs of success have been seen since these consultative bodies were established. Fleet capacity, for instance, has been employed more effectively and there has been a drop in levels of unsatisfied demand for fleet support.[22] More specifically, the Department of Fisheries and Oceans has identified that a full 80 percent of the identified shortfall has been dealt with. The Department of the Environment has also benefited from

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[20] DND "1997 Unpublished MARLANT Annual Report", p. 2.

[21] Discussions with Dave Davies (civilian), responsible for MoUs for the Navy.

[22] RAdm L. Murray and Lt (N) D. Robinson "Maritime Enforcement: The Federal Government's Maritime Fleet and the Navy's Mission" The Niobe Papers Vol 4, 1992 p. 132.

this as increased patrols over the oceans have resulted in an increase in fines to container ships for dumping oily bilge under the Canadian Shipping Act.[23]

Measuring success in this area, however, can be a challenge. First of all, what is considered "success"? Is it simply catching one or two or even ten vessels practicing illegal fishing techniques? Or is it establishing a strong deterrent "presence" throughout Canadian waters to stop this practice? Even then, it is difficult at best to measure the effectiveness of the Canadian Navy acting as a deterrent in Canadian waters unless a disaster occurs. This becomes even more difficult with fisheries patrol since the impact may not necessarily be noticed immediately. Some facts, however, may be helpful in this regard. While this is not the objective of enforcement per se, the Navy has regularly been responsible for the capture of a number of vessels illegally fishing probably the most famous of which was the Spanish trawler the *Estai* which was captured in the spring of 1995. Although the *Estai* was captured by DFO the Navy was in the background ready to intervene if needed. More recently, the Navy found the Spanish fishing vessel *Beiramar Tres* in violation of the regulations of the North Atlantic Fishing Organization (NAFO) in the CANLANT area (outside the 200nm EEZ).[24] However, an even more effective means of surveillance may have been the occasional use of the submarines for fisheries patrols.

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[23] For more examples of the success of working with OGD since these consultative measures have been in place see: Murray and Robinson, p. 134-137.

[24] Department of National Defence "Monthly Report - MARLANT Operations in Support of Canadian Sovereignty" Deputy Chief of Staff Intelligence Unpublished Report - MARL: 2000-SUPT (N00 COMD) 20 January 1998.

Operation *Ambuscade* which took place in March of 1993, involved HMCS *Ojibwa* monitoring the waters off of the lucrative Georges Bank near the Canadian and American exclusive fishing zone (EFZ) called the Hague Line. *Ojibwa* was able to collect enough information on illegal American fishing in Canadian waters to warn violators that they would be apprehended if they were to cross the line into Canadian waters again. This warning had an incredible deterrent effect on illegal fishing in the area since the violators quickly informed other American vessels in the area about the near-by submarine and left the area. Department of Fisheries officials estimate that the number of U.S. violators of the Hague Line dropped from 33 in 1993 to 6 in 1994 and then to 1 in 1996.[25]

With respect to OGDs outside of DFO, the Navy sometimes is responsible for certain days for patrolling or may be used as a resource to be called in when necessary. This is the case with work conducted in conjunction with the Solicitor General (SolGen) through the RCMP in drug operations. Assistance to the RCMP began in 1985 but few hours were allocated ahead of time specifically to the SolGen. In the past the Navy acted when called upon by this department. However, recent agreements have allowed for the allocation of 40 ship days of preventive patrols and 40 ship days in support of counter-drug operations.[26] After it began working with the RCMP, the Navy has been involved in some significant drug seizures. This includes a 1987 seizure of 27 tonnes of marijuana; a

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[25] Sean Maloney "Canadian Subs Protect Fisheries" Proceedings March 1998, p. 76.

[26] Department of National Defence 1997 Estimates (Ottawa: Department of National Defence 1997) p. 40.

1990 capture of 29 tonnes of hashish; a 1993 seizure of 10 tonnes of hashish; and 5 tonnes of cocaine captured in 1994 amongst others.[27] On the whole, then, it would appear that the Navy would be patrolling Canadian waters effectively.

One exception to this might be Canadian operations in the Arctic. Operations of all types, search and rescue and basic protection of sovereignty included, have presented the Navy with considerable difficulty.[28] In spite of public outrage at the voyage of the U.S. Coast Guard ship *Polar Sea* in 1985 through the Northwest Passage and government statements regarding Canadian sovereignty in this body of water, there has been little "real" support from Ottawa for increased surveillance. The shelving of a fixed sonar grid and a program to acquire nuclear submarines in the late 1980s, due to fiscal constraint and the end of the Cold War, has curtailed the monitoring of Arctic waters. Current Canadian diesel submarines cannot go under the polar ice and the only other options for monitoring are aerial surveillance and by ice breakers both of which are done only a few times a year.

With these examples in mind, can we say that the Canadian Navy is doing enough? Are they able to do more, and if so, will it make much of a difference? Again, some facts may be helpful in this regard. Crickard and Haydon have discussed the capability of the equipment Canada uses to patrol these waters.[29] While they acknowledge that it is

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[27] Maritime Command The Naval Vision: Charting the Course for Canada's Maritime Forces into the 21st Century (Halifax: National Defence 1994) p. 14.

[28] Ann MacInnis "Arctic Underwater Surveillance" Niobe Papers Vol 3, p. 20.

[29] Crickard and Haydon, p. 22.

unlikely that there are ever to be sufficient maritime forces to cover all of Canada's waters continuously due to the high cost, they argue that judicious use of a smaller number of units can provide for adequate coverage. To demonstrate, Crickard and Haydon cite that a modern submarine with a towed acoustic array is able, under good conditions, to detect surface and underwater contacts in an area of about 125,000 km^2 and can maintain this activity for as long as 50 days. Maritime patrol aircraft, such as Canada's *Aurora*, can cover an area of about 300,000 km^2 in a 10-hour patrol in an area 500nm from its operating base. To maintain a continuous patrol over such an area would require about four or five aircraft. A modern frigate such as Canada's City-class can maintain continuous surveillance over approximately 32,000 km^2 on the ocean's surface, subsurface and airspace. One frigate can maintain this surveillance for approximately eight to ten days without having to refuel. Finally, a naval task group of four modern frigates or destroyers and an operational support ship (AOR) with a maritime helicopter has a continuous surveillance coverage of approximately 192,000 km^2 and can maintain this for approximately 30 days.[30] In light of this evidence, Crickard and Haydon have argued that while Canada possesses a vast water-space, it is possible that a smaller fleet can effectively respond to a crisis in this area.

Together, these statistics point toward two conclusions. First, that the Navy is adequately patrolling most of Canada's waters with the exception of the Arctic, and for

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[30] A more detailed discussion of this can be found in Crickard and Haydon, p. 22-23 and Maritime Command, Adjusting Course: A Naval Strategy for Canada (Halifax: Department of National Defence 1997) p. 11-13.

the most part is also able to establish a deterrent presence. Thus the Navy is not only doing "enough" but in fact is doing "more". Furthermore, because of the nebulous nature of assessing whether the force that the Navy currently has out on the water is "enough", hard statistics such as these enhance political support. Yet somewhat contradictory to this conclusion, the Navy seems to be struggling to keep domestic political support. While its activities are effective as evidenced through statistics presented above, like the rest of the military, it struggles with achieving and keeping strong positive public opinion. Moreover, due to the nature of politics, the federal government has been driven by a perception of negative public opinion and the need to reduce defence funding, which consequently has seriously impacted on the Navy.

Canada's Defence Industrial Base (DIB)

While the political factors likely play the most important role in our understanding of what shapes Canada's Navy, the domestic defence industrial base can also play a significant role. From the military perspective it can meet the normal peacetime requirement for equipment as well as expand rapidly during wartime to meet increased demands. From a civilian perspective, the defence industrial base provides economic opportunity, employment and technological innovation which can carry over into other sectors. A strong DIB, then, can mean a strong economy and very likely strong political support for both the government as well as the military.

For Canada, which has a relatively small Navy, what does this mean? Is the present industrial base able to support the Navy's demands, or does much of the material

have to be bought from overseas markets? Most important, what is the Navy's demand on the industrial base? Unlike the political analysis which relied extensively on declaratory statements and inferences from naval operations, assessing the defence industrial base for the Navy's needs is somewhat more concrete.

Before examining the actual industrial needs of this force, it is necessary to look quickly at the Navy's various roles because this may indicate the type of equipment the Navy will need. Over the past few decades, Canada's Navy has been responsible for at least four general roles which have required specialized equipment. Domestically, the Navy has been responsible for coastal defence. As already discussed, this may involve sovereignty patrols over some of the world's most treacherous bodies of water, the North Atlantic Ocean and the Arctic Ocean. Also within a domestic context, as previously mentioned, the Navy has provided support to other government departments which included operations such as fisheries patrol, counter drug operations and monitoring of vessels for pollution violations. On the international scene, the Navy historically has played a specialized role in anti-submarine warfare (ASW) for its NATO allies. It has furthermore contributed significantly to peacekeeping operations in enforcing sanctions (such as recently in the Persian Gulf) which may involve conducting a general patrol of the area and boarding suspect vessels. Peacekeeping operations may also involve the evacuation of civilians on land when a crisis escalates. Both internationally and at home, the Navy is also responsible for some search and rescue operations and for disaster relief if called upon.

Thus, the activities of the Navy are far-ranging and require equipment which is

flexible and multi-purpose. To meet such varied operations, the solution has been to carry out each role on a relatively low scale with equipment which is wide-ranging but limited in numbers.[31] Testimony to this effect can be seen in the latest lines of ships the Navy has purchased, the new Canadian Patrol Frigates (CPF), the first of which came into service in 1992. The CPF can perform all of the above roles. However, there are only 12 altogether which are almost split equally between the east and west coasts. Similarly the new Maritime Coastal Defence Vessels (MCDVs) are technologically advanced through specially designed computer systems but, like the CPF, there are only currently five per coast.[32] In total Canada's fleet consists of 12 *Halifax*-class frigates, 12 *Kingston*-class maritime coastal defence vessels, 2 *Oberon*-class submarines (soon to be replaced by 4 *Upholder*-class submarines), 4 *Tribal*-class destroyers, 2 auxiliary oil refuelers (AORs), and 2 mine countermeasures vessels.

For the defence industrial base in Canada a significant challenge arises if it is to meet all of these needs on its own. Because of the limited size of the Navy, Canada's DIB is unable to take advantage of economies of scale. Furthermore, because of the cyclical nature of production, investment into long-term building can prove detrimental to ship

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[31] John Treddenick "The Economic Significance of the Canadian Defence Industrial Base" in David Haglund (Ed) Canada's Defence Industrial Base: The Political Economy of Preparedness and Procurement (Kingston: Ronald P. Frye and Co. 1988) p. 16.

[32] There will be two more built which will bring the total to 12 MCDVs altogether. It is expected that the last of these vessels will be brought into service in 1999.

yards at the end of the building phase.[33] As a result, such a defence industrial base would be an enormously expensive proposition which would likely rely on government support to some extent. By way of a solution, Ottawa has chosen to import many major weapons systems and to specialize in defence production in only a limited range of smaller systems, sub-systems and components primarily for export.[34]

As a consequence of both the needs of the Navy and the choices the DIB has made, the industry as a whole has focused around both the physical building of the ships in addition to the computerized features which are also marketed internationally. Currently there are over 230 defence corporations employing over 35,000 people.[35] Although not all of these companies focus around the Navy, the range of the corporations which provide industrial support are far ranging. For instance, they include high tech compter companies such as Computing Devices of Canada which produce part of the towed array system for the new CPFs and for the old *Oberon*-class submarines; Saint John Shipbuilding Limited

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[33] The length of time between procurements for warships is usually in the area of thirty years.

[34] Treddenick, p. 17. The 1994 Defence White Paper recognizes that the domestic defence market is too small to support a defence industrial base which is able to meet all of the needs of the Canadian Forces. As a result, in 1956, the Canadian and U.S. governments entered into a series of agreements starting with the Defence Production Sharing Arrangement. This Arrangement allows Canadian defence firms to compete with American ones thus generating an interdependent North American defence industrial base. (Source: 1994 Defence White Paper, p. 24)

[35] Canadian Defence Preparedness Association Canadian Defence Almanac 1997 (Ottawa: Canadian Defence Preparedness Association 1997) p. 1-12.

which has worked on the design and production of the CPFs and the MCDVs; and an array of other Canadian-owned and subsidiary organizations.

Probably the best measurement of the naval component of the defence industrial base in Canada would be to look at the CPF which is one of the most recent naval procurements. This contract which was awarded to Saint John Shipbuilding Limited was one of the most expensive and complex procurements in Canadian military history.[36] It is estimated that approximately 70-80 percent of the CPFs were built and designed in Canada.[37] While not all of the "Canadian" companies were home-grown organizations, the Canadian subsidiaries conducted most if not all of their work in Canada. Paramax Systems Canada which built the weapons, sensors and sophisticated communications system, for example, is now a subsidiary of a United States company. However, the integration and testing of components was done completely by the Canadian component of the company which was based in Montreal.[38]

Across Canada and internationally, Canadian shipbuilders are recognized as highly skilled. Their strength lies in the construction of complex design vessels such as the CPF as well as in technology and systems integration capability. The reason for this is that

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[36] The Canadian government spent $6.2 billion in 1983 on the new frigates. (Source - --- People, Partnership and Performance (Paramax Systems Canada: Ottawa 1985) p. 2.)

[37] Telephone conversation with Vice-Admiral Peter Cairns (retired), President, Shipbuilding Association of Canada, 9 June 1998.

[38] Paramax has since collapsed into a company called UNISYS.

some companies which worked on the CPF are also actively involved in the building of other complex vessels. This involves, for instance, commercial building such as the building of the new British Columbia ferry, the *Skeena Queen* which utilized similar technology as the CPF.[39] Other companies such as Computing Devices of Canada, have worked internationally on systems components for British, American and Japanese warships.[40] Furthermore, with the advent of the Czech Republic, Hungary and Poland joining NATO in 1999, a number of opportunities may come to light as the Polish fleet needs to be upgraded.[41] Such projects have kept much of the industry healthy which is good for long term growth and ultimately for future procurements.

The Federal Budget

While our discussion to this point has revolved around the needs of the Navy as dictated from policy guidelines, both maritime forces and the rest of the military have been severely constrained in meeting these needs due to the continuously declining budget. For the Navy this is not a new situation. Over the years, the maritime budget has consistently been the lowest of all the military elements. Furthermore, spending, in the past, has not

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[39] --- Harbour and Shipping April 1997 p. 67.

[40] --- Advanced Electronics for Defence Applications (Ottawa: Computing Devices of Canada 1996) p. 6.

[41] Adam LeBor "Arms Dealers Tell NATO Newcomers: Come on Down!" The Globe and Mail 21 July 1998, p. A10.

necessarily been motivated completely by threats but also by concern about maintaining a healthy industrial base as well as balancing regional employment.[42]

In the years since the end of the Cold War there has been a significant reduction in defence spending. During the 1980s, for example, Canada's defence expenditures hovered around the $10 billion mark annually and had been growing at a rate of about 3 percent per year.[43] However, more recently, the government has dramatically scaled back this funding. In 1994, the Liberal government released its budget impact for National Defence. In this statement, the government announced that it would reduce defence spending by $7 billion over five years (12% of already planned expenditures).[44] This was in addition to previous reductions in planned defence expenditures of $14 billion over the 1989-90 through 1997-98 fiscal years. Such a continual drop in funding cannot occur without a serious impact on equipment and operational capabilities. This thesis does not seek to study in minute detail the dollar figures allocated to the maritime forces. What it does intend to do is look at some general figures from all levels of commitment of maritime forces and the military with the intent to understand the impact of the constraints which the Navy may face as a result of these budget cuts. This will involve looking at the

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[42] For a more analysis of the history of Naval spending see Dan Middlemiss "Economic Considerations and the Canadian Navy" W.A.B. Douglas (ed), The RCN in Transition (Vancouver: University of British Columbia Press, 1988) pp. 224-279

[43] Treddenick, p. 27.

[44] David Collenette Budget Impact: National Defence (Ottawa: Department of National Defence 1994) p. ii.

allocation for the military as a whole as well as spending specific to the Navy.[45] Budgetary figures which are for the Canadian Forces as a whole reflect the operations and budget of the Navy as well, and thus they are helpful.

The 1997 Estimates outline the basic amount that maritime forces are allocated. This works out to be approximately $2,139,198,000 or 19.7 percent of the total DND budget. Pay to personnel totals 40.7 percent of money while Operations and Maintenance takes the other largest block of money at 30.2 percent. Capital tops off the rest of spending at 29.1 percent.[46] According to the 1997 Estimates, justification for this spending arises from two main government commitments. The first commitment is sovereignty, surveillance and the defence of North America and the second is collective defence arrangements, alliances and international peacekeeping operations such as STANAVFORLANT and the United Nations.

When reviewing these figures in the context of recent political developments in the post-Cold War world, one cannot help but make some interesting observations. For instance, there is no question that international commitments have risen both in dollar figures as well in actual commitments to alliances. The 1994 Estimates, for example, allocated $180 billion towards peacekeeping operations. However, the 1997 estimates

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[45] Some figures (such as the cost of a peacekeeping mission) are not broken down by Service but are instead grouped together as the Canadian Forces as a whole. In such instances these whole figures will be used.

[46] Department of National Defence 1997 Estimates (Ottawa: Department of National Defence 1997) p. 39.

place this figure at $200 billion. In the same time period, commitments to actual operations have increased as well. For the Navy, this has included missions in the waters off of the former Yugoslavia (OP *BOLSTER* and OP *SHARP GUARD*) as well as operations in Haiti (OP *FORWARD ACTION*) which occurred during the 1994-1997 time period.[47] Also in this time period, personnel on peacekeeping missions increased rather dramatically. In the 1993-94 fiscal year 2,998 personnel were involved in such operations. By 1994-95, this figure had risen to 4,559 and 1995-96 saw a further increase to 4,882.[48]

These statistics present us with a curious situation. On the one hand, the Navy, like the military as a whole, has faced substantial budget cuts. Concurrently, however, they have been increasingly committed to international obligations in the form of peacekeeping missions and humanitarian aid. Domestically, according to official Department of National Defence documents, the Navy has also maintained a strong presence within Canadian waters.[49] Furthermore, cuts have not necessarily reduced

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[47] Nine of Canada's ships and four Aurora aircraft participated in the Yugoslavian mission over this time period including HMCS *Algonquin*, HMCS *Iroquois*, HMCS *Halifax*, HMCS *Preserver* (two times) HMCS *Toronto*, HMCS *Montreal*, HMCS *Ville de Quebec*, HMCS *Calgary*, and HMCS *Fredericton*. Eight ships participated in the Haiti mission including HMCS *Fraser* (three times), HMCS *Gatineau*, HMCS *Preserver*, HMCS *Provider*, HMCS *Annapolis*, HMCS *Ville de Quebec*, HMCS *Terra Nova* (two times), and HMCS *Kootenay*.

[48] Department of National Defence Estimates 1995 (Ottawa: Department of National Defence) p. 212; Department of National Defence Estimates 1996 (Ottawa: Department of National Defence) p. 207; Department of National Defence Estimates 1997 (Ottawa: Department of National Defence) p. 211.

[49] See Department of National Defence 1997 Estimates (Ottawa: Department of National Defence: 1997) p. 211; and Maritime Command The Naval Vision: Charting the

equipment acquisition as the Navy has, within the past five years, seen a new line of frigates and MCDVs enter into the force as well as the purchase of submarines. However, replacements for the Sea King helicopters which are over thirty years old, are currently not planned.

Miscellaneous Issues

In addition to the above determinants which shape the Navy, there are some additional factors which have an important impact on the Navy and its operations.

Personnel

Certainly one of the first considerations for any military force must be personnel. In order to have an effective navy, it is essential to have well trained sailors who enjoy what they are doing. In an ideal situation, these people would be highly skilled, well educated and enthusiastic about their role within the military. For Canada's Navy, most of this can be said to be true. Currently there are 10,284 regular force maritime personnel and 3,820 primary reservists. Much of the maintenance and repairs of the various vessels are done by military personnel in conjunction with private contractors. This means that the Navy must have technicians with skills sophisticated enough to take apart and refit various parts of ships and aircraft in order to keep the equipment in top shape. For the most part, the Navy seems to have the personnel to be able to do this. Evidence to this

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Course for Canada's Maritime Forces into the 21st Century (Halifax: Maritime Command: 1994) p. 13-14

effect can be seen in the 30 year old maritime helicopter, the *Sea King* which is expected to stay in service until into the next millennium. As it is right now, the *Sea King* requires four hours or more of servicing for one hour flying. Furthermore, servicing on sensitive radars and other equipment requires extensive training. Also, the Forces Reduction Plan (FRP), a cross military plan to reduce personnel has reduced these skilled technicians which adds strain to those still left since these people end up spending more time at sea.

The Navy was largely affected by the cuts through the FRP. The year 1994 saw a total of 11,278 naval personnel. By 1996, however, this number had dropped to 10,284.[50] A drop of almost one thousand personnel is considerable in only a two year period. Through attrition many of the officers left but more troublesome, however, was that a number of the skilled trades such as radar and weapons technicians have left as well. A shortage in these trades inevitably results in those who are left spending more time at sea. In spite of these difficulties, Naval publications have shown that the Canadian Navy has still accomplished its missions.[51]

Personnel constraints will likely continue with the introduction of the new *Upholder* class of submarines. At current levels the Navy will be short 200-300 men when

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[50] Canadian Defence Preparedness Association, p. 1-42.

[51] For more information see: Department of National Defence, Adjusting Course: A Naval Strategy for Canada (Halifax: Department of National Defence 1997) and Maritime Command, The Naval Vision: Charting the Course for Canada's Maritime Forces into the 21st Century (Halifax: Department of National Defence 1994).

these submarines come into service thus putting a serious strain on submariners.[52] Consequently, this impacts on the morale of the Navy. Morale can be a difficult factor to measure since it involves the perception of how naval personnel view working for the Navy. The stress of spending extra time at sea either on a peacekeeping mission or on patrol within Canadian waters can affect the mood of personnel and thus, their performance. A recent related DND study found that of almost 900 soldiers who served in Bosnia, family worries and confusing mission goals are as damaging to health and performance of Canadian soldiers as are violent events.[53] Although a similar poll was not conducted among naval personnel, it is possible that a similar situation could be found with sailors continually far from home shore. MARLANT has tried to address the morale of sailors through new policies allowing longer postings and scheduling guidelines with respect to time away from base port. DND has stated that this policy "will continue to ensure more stability in high readiness units promoting greater effectiveness."[54]

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[52] Discussions with Lt. Ken Marr, officer in charge of training submariners and currently the only Canadian who has served aboard the *Upholders* with the RN.

[53] Defence Newsletter Vol. 15, No. 6, p. 10.

[54] Capt (N) D.S. MacKay "MARLANT Operations Business Plan - FY 98/99" Unpublished Report from MARLANT 1998 p. 7

Women in the Navy

Another important factor is the recent increase of women in the Navy. Many trades have recently become open to women. As a result, there has been a significant increase in women on-board ship which has the potential to lead to problems. Currently the captain of the ship is allowed to set his own policy on-board ship for the numbers of women and for female mess areas, although it is mandated that men and women must have enough privacy to be able to change clothes and sleep in separate areas. In some cases, integration of both sexes has been very successful, especially when there is a significant number of women on-board so that they are able to support each other.[55] Difficulty arises however, when the captain is deciding who will be serving on the ship. Because space is limited, the captain must fill up all positions and it may be problematic to find a person to fill a specific role, especially if all of the male bunks are filled and the captain must find a female. Furthermore, recent media reports of sexual assault and harassment which have come to light throughout the ranks, may dissuade other women from joining, thus depriving the Navy of future talent. While the recent Canadian Forces (CF) harassment report cited that only 15 percent of all harassment reports were sexual in nature, media reports such as those in Maclean's magazine throughout the months of May and June 1998 would indicate otherwise.[56] In the CF study the largest reported type of harassment

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[55] Interview with Cdr George Borgal.

[56] Capt R.O. Morrow "1996/97 CF Harassment Report" Matelot IX 2/1998 p. 19.

was abuse of power (40.4 percent) followed by personal harassment (27.1 percent) followed by sexual harassment (15.1 percent) and finally discrimination (6.7 percent). However, with focus on sexual harassment, women may be less inclined to join the Navy.

Today the Navy is trying to address these kinds of issues through its working document called Vision 2010.[57] This project is working within the military to provide "a framework for women in the Navy." It addresses issues such as the problem of harassment and other issues of women serving in the Navy. In the long run, this project will be examining the possibility of women on-board submarines but not until after 2010.

Technology

By way of a final consideration, it is necessary to ponder future trends in technology which may impact the Navy within the next two to three decades. According to experts, the "most powerful navies will be those that incorporate technological advances into their operations and doctrines while guarding against traditional and new vulnerabilities."[58] This includes advancements in computers, communications systems, detection aids and satellite navigation aids. Recent evidence would suggest that military forces which have capitalized on technology can fight more intelligently and as a result,

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[57] A complete copy of Vision 2010 can be found on the internet at: www.dnd.ca/navy/marcom.

[58] Donald Daniel "The Evolution of Naval Power to the Year 2010", Naval War College Review Summer 1995, p. 66.

more effectively.[59] Yet an increase in technology, which is expensive, comes at a time when defence budgets in most western countries are steadily shrinking.

Another trend which is expected to continue is the move toward multinational force operations.[60] With the exception of the USN, no western naval force is able to operate across the full range of military missions. Furthermore, as already mentioned, since the end of the Cold War, there has been a dramatic increase in general global instability and peacekeeping operations. When working together, a multinational force can be more effective than one single Navy since it carries with it more political sway. Therefore, in the interest of continuing to project Canadian interests abroad and to meet Canada's foreign policy goals, it will be important to remain highly interoperable with other NATO navies.

The Department of National Defence has acknowledged this in a recent study wherein it was found that significant trends would revolve around data processing speeds, artificial intelligence and database management. The challenge, however, in this area will be to increase interoperability with other navies but also to maintain independence as a Canadian ship.[61]

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[59] Daniel points to the Gulf War where a strategy built around smart weapons rendered Iraq incapable of an effective response. (Daniel, p. 67)

[60] Cmdr Michele Cosentino (Italian Navy) "Multinationality: The Way Ahead for Western Maritime Power" Proceedings March 1998, p. 64.

[61] Department of National Defence The Maritime Vision: Canada's Maritime Forces in 2015 (Ottawa: Department of National Defence 1996) p. 14.

Chapter Four

Conclusion: Some Commentary on These Determinants

The Interplay of the Determinants: What does it Mean?

At the very beginning of this paper it was established that there has been a global shift in the outlook of military use in most western states. Some forces are facing a serious crisis as their very existence is often questioned while concurrently they are asked to enter into fierce battle zones and maintain perilous ceasefires.[1] In Canada, this two-sided attack has not been without a serious impact on the military, including the Navy.

The determinants presented in the previous chapter detail the factors which have influenced the Canadian Navy as an organization since the end of the Cold War. Each factor demonstrated that some changes have occurred in this organization. The further increase of women into the Navy and the considerable cut in the budget, for instance, has forced the Navy to evolve in a number of different ways. Yet, it is not until we take a step back and look at the interaction of all of these factors together, that we are able to see the effect this has had on the Navy as a whole. Understanding the Navy as it is today requires that some analysis of the interplay between these factors be undertaken. With that completed, we will finally be able to come to some conclusion about the Navy and how it fits into its roles both international and domestic.

One of the first observations which must be made is on the ambiguous effect of wavering government support toward the Navy and its operations. Our investigation has demonstrated that the Navy has continually increased its involvement in international

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[1] This has been the case for Canada especially since the Somalia Crisis where some Canadian peacekeepers were convicted of torturing and killing a Somali teenager. For a more detailed discussion on this topic see: Peter Haydon "The Somalia Inquiry: Can it Solve Anything?" Canadian Defence Quarterly 26:3 (Spring 1997) pp. 20-23.

peacekeeping operations, especially following the end of the Cold War. Concurrently, however, both the overall military budget and specifically the Navy's budget has significantly decreased indicating less political support for this entire organization.

As a consequence, one would expect that the Navy would be struggling to keep up with both foreign and domestic operations. Yet upon reading naval publications, including the recent Adjusting Course, it would seem that there has been little impact from such cuts. It boasts of some of the "finest ships and aircraft in the world" and impressive modernized vessels including the *Iroquois* class destroyers. While it warns of the possibility of "rust out" of some of the aging ships including the AORs, it speaks of the many international missions the Navy has accomplished with only 22 ships and states that this "is a testament to the professionalism and dedication of the men and women who serve both aboard and ashore."[2] Furthermore, in spite of the potential for difficulty in keeping up with requirements, this publication sees a continuation in national and international operations at the current level well into the next millennium. In essence, one comes away with the belief that the Navy has weathered the budget cuts well.

This study, however, must question this claim. Recent international crises, for instance, to which the Canadian government has committed forces seem to indicate that although the Navy has been involved, it has increasingly been involved only in a limited capacity. The recent Gulf crisis provides for an example of this claim. In early 1998 with the threat of war in the Persian Gulf and a build up of allied navies to prevent a conflict,

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[2] Adjusting Course: A Maritime Strategy for Canada, p. 39.

the Canadian government decided to send HMCS *Toronto* to the Gulf as part of the deterrent deployment. During its time in theatre, this ship was fully interoperable with other navies and participated in enforcing UN sanctions against Iraq. Unlike the 1991 Gulf War where three ships were sent, however, it must be noted that the Canadian government decided to send only a single warship. Admittedly the 1998 crisis was not as highly supported by public opinion as the earlier Gulf War in 1991, but we must question the decision to send only one ship.[3] Furthermore the *Toronto* was sent from NATO training with STANAVFORLANT to the Gulf. While it is true that the *Toronto* would have been the closest Canadian ship to the crisis, the government did not send any others in spite of the fact that the United States and Britain had entire battle groups there, including aircraft carriers.

Comparison between Canadian commitment to the 1991 war and the 1998 crisis brings to light similar points. While there were some underlying international political factors at work in the allied build up in the Gulf, a significant consideration for Canada would have been the cost of sending more than one ship. Certainly "on the books" the cost of an additional one or two ships in the Gulf may have strained the government financially but also a major consideration must be the opportunity cost of maintaining regular operations within Canadian waters. If the government sent more than one ship, there could be an impact on "regular" operations including sovereignty patrols. This study indicated earlier that a significant portion of Canada's fleet is needed in order to

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[3] As much as 75 percent of the Canadian public supported Canadian operations in the Gulf in 1991.

adequately patrol Canada's enormous EEZ. With less than ten ships on the east coast (the closest Canadian coast to the crisis) which can be deployed overseas for battle and which also must be used for patrols far into the treacherous waters of the Atlantic and Arctic Oceans, deploying more than one ship to the Gulf may put at risk basic operations regularly conducted by the Navy. This is but one example of operational concerns about the Navy in the late 1990s.

The 1998 Gulf crisis highlights another effect of government ambiguity toward the Navy. The 1994 White Paper and Adjusting Course have maintained that the Navy is effectively participating in international crises and operations. Yet in light of the above example, one must question the ability to be able to make a useful contribution to such operations. Is sending one ship to the Gulf useful? I would argue that in light of its 1991 contribution, one ship which was taken from STANAVFORLANT shows a general agreement with the mission but cannot necessarily constitute an effective contribution. This, then, leads to questions regarding contributions in the future to similar operations. Because of the limited fleet will the Navy really be able to do much more than it did in the 1998 Gulf crisis? Along similar lines, another concern is Canadian involvement in a concurrent or escalated crisis. Fortunately there were no other major incidents which erupted during the 1998 crisis but had there been, this becomes a serious question, especially if it is a domestic problem. Finally, if the Gulf crisis had erupted into war, would Canada have been able to send more ships? This is a question which cannot be answered but certainly must be contemplated. Our investigation in the previous chapter, and this more concrete example of the Gulf crisis seems to indicate that Canada has

enough ships to be able to conduct "regular" activities including domestic patrols and participation in regular NATO training, but may struggle to be able to effectively participate in escalated or concurrent international crises should more than one erupt at a time. The "commitment-capability gap" as this problem has come to be termed is not confined to the Navy but has been found throughout the Canadian military as a whole.[4]

In addition to showing a navy struggling to cope with an increased workload but with less resources to handle it, this study has also highlighted other problem areas for the Navy. The on-going problem of integrating females on-board ship as well as dealing with harassment has been a serious dark cloud over the Navy. The information presented by the CF Harassment Report indicates that the actual counts of sexual harassment in the Navy are quite low in comparison with other reported kinds of harassment. Yet continuing media coverage of sexual harassment in the military by Maclean's magazine which then has been carried to other media outlets, may lead to a decrease in enlistment of both men and women. Furthermore, it may decrease morale among those already serving.

Such problems become compounded when we consider additional strains which have been placed upon personnel. For instance, as this investigation has shown, budget cuts have led to a significant cut in personnel over a short period of time for the Navy. Consequently, for those who are left, their skills are more valuable and as a result many demands are put upon them including increased time at sea taking them away from family.

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[4] Louis Nastro and Kim Richard Nossal "The Commitment-Capability Gap: Implications for Canadian Foreign Policy in the Post-Cold War Era" Canadian Defence Quarterly Vol. 26, No. 5, Autumn 1997 p. 19.

Although problems with personnel and missions have created some rather serious difficulties for this organization, our investigation has also brought to light some positive areas for the Navy. For instance, with regard to support from the defence industrial base, most information would seem to indicate that there currently is a solid base for both maintenance and overhaul as well as for building new ships. While maintaining a healthy ship-building industry in the long term may be difficult, this investigation has shown that the industry has been awarded contracts both at home and abroad. Furthermore, with the advent of new NATO nations, a number of defence contracts will be awarded and securing a position in any of the three new states (especially Poland who has a navy) will help to ensure a strong and healthy industry in the future.

Overall, the commitment-capability gap presents some serious problems for the Navy which must be addressed. Because Canada is a medium power navy, this study suggests that in making policy in Canada, top policy makers pick one particular end of the naval spectrum to which Canada will dedicate its resources. The continuation of a condition of limited resources would seem to push the Navy toward the constabulary end with some potential for involvement in a limited capacity in international situations which are carefully picked by the government.

Conclusion

To this point, this study has focused on a theoretical definition of a medium power navy and a practical examination of the Canadian Navy within this role. Now we must turn to some underlying questions. First we need to ask after engaging in this debate if our discussion has been profitable. That is, has a positive contribution been made to naval theory?

Julian Corbett, at the beginning of his seminal work *Some Principles of Maritime Strategy*, discusses the merits of a theoretical approach to war. While traditionally theory has been distrusted by those who are in the field, one of Corbett's main points is that the intent of theory is "to increase the effective power of conduct. Its main practical value is that it can assist a capable [person] to acquire a broad outlook whereby he may be the surer his plan shall cover all ground, and whereby he may with greater rapidity and certainty seize all the factors of a sudden situation."[5] This being the case, our discussion might have some value to the person at sea.

First, it was clear at the beginning of this work that naval terms have traditionally been ambiguous at best. Thus, narrowing down a precise definition is a difficult task. While the definition of medium power proposed here remains rather rudimentary it still provides both other academics as well as senior officers with some criteria of evaluation of navies. Yet, in this case, because of the range of capabilities and nature of states with which we are examining, this type of simple definition may be the best.

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[5] Corbett, p. 2

Also, it is clear that the general capabilities of medium power navies can be quite diverse. It is very possible that there are some navies which lean toward the higher end of the spectrum and are more offensive in nature but were not discussed here. But, as with our definition, this paper establishes a general idea of the spectrum of capabilities of medium power navies. An interesting study, then, would be an examination of individual navies and their capabilities in comparison to their state's foreign policy agenda. This may, in the end, provide a more accurate assessment of 'mediumness' of navies.

On a more practical side, a second important question to consider might be: Is this the correct navy for Canada? An answer to this is rather ambiguous. Recall that the theory introduced earlier dictates that a medium power navy is able to meet three criteria. First, it must possess attack capability beyond the 200nm EEZ. Second, the navy must be supported by the state's foreign policy and mandated to work internationally. Finally, the definition requires that the navy must have the full support of the nation including politically, socially and economically in order to be effective.

In measuring up to this check list, it is certain that Canada has a medium power navy as it regularly acts beyond the 200nm EEZ in exercises and in peacekeeping missions. Moreover, it is mandated by the government to participate in these events. However, in meeting the last requirement, the Navy faces some difficulty. For example, in the economic sphere the Navy has faced some very difficult times and has endured budget cuts which have led to the reduction in personnel by at least one thousand in a few short years. Along similar lines, political support for the Navy, as we have seen, can be ambivalent and, just as important, public support for the military as a whole is lukewarm at best.

Continuing media reports on sexual harassment in the military as well as media publicity of the few who have committed crimes have further damaged the image of the military. In light of all the foregoing evidence, one would conclude that the Navy would fall into the definition of a "medium power navy", but just barely.

On the other hand this study has shown that on the domestic front, industrial support for the Navy is strong. This, to me, indicates a stronger base of support in general for the Navy than public opinion polls may be able to measure because the economic livelihood of many Canadians are tied to this sector. Furthermore, this study has demonstrated that support for the Navy internationally is strong as evidenced through the global community's desire for a military solution to some crises and the continuation of alliance relationships such as NATO. In spite of some difficulties with personnel, budgets and the Navy's political masters, as a whole, the Navy is still strong and highly regarded internationally.

In light of the above analysis, can we say that this is the "correct" Navy for Canada? Domestic political and economic support would dictate that the Navy be small yet have some international presence. For instance, the Navy may participate in selected peacekeeping missions but withdraw from alliances. Such a decrease in activity would allow the Navy to concentrate its resources in a specific area like effective monitoring of domestic waters and support to OGDs or, conversely, on peacekeeping missions and international crises. Ambiguous public opinion would also support this kind of a reduced force even more, although they may expect to still be involved in a limited way in international peacekeeping missions. Overall, on the spectrum of capabilities of navies, as

was introduced earlier in this study, these factors would lead one to the conclusion that the "correct" navy for Canada would be close to the "constabulary" end.

Yet when looking at other factors which this study examined, the situation changes considerably. For instance, Canada's foreign policy as seen in the 1994 Defence White Paper, makes it clear that the government is in favour of a Navy that is large and effective enough to "continue to play an active military role in the United Nations, North Atlantic Treaty Organization and the Conference on Security and Cooperation in Europe." Furthermore, the government aims to "develop our defence relationships with the nations of Asia-Pacific region and Latin America, and contribute, where possible, to the security of the Middle East and Africa."[6] Such grand goals requires a strong medium power navy which can respond both to major international crises and also effectively represent Canada in other countries on the diplomatic front. On another note, this study has indicated that further support for a strong navy may be found in the domestic defence industrial base which would dictate that there is economic support for the military outside of the government. This is important because it validates the claim that Canadian citizens are in favour of a strong navy (in spite of ambiguous public opinion polls) since they are willing to invest in the Navy's long-term growth in the form of capital and equipment. As a result, this study has demonstrated that these factors have encouraged the Navy to be larger and more involved internationally, thereby moving the Navy somewhere into the middle to upper end of the spectrum of capabilities of navies.

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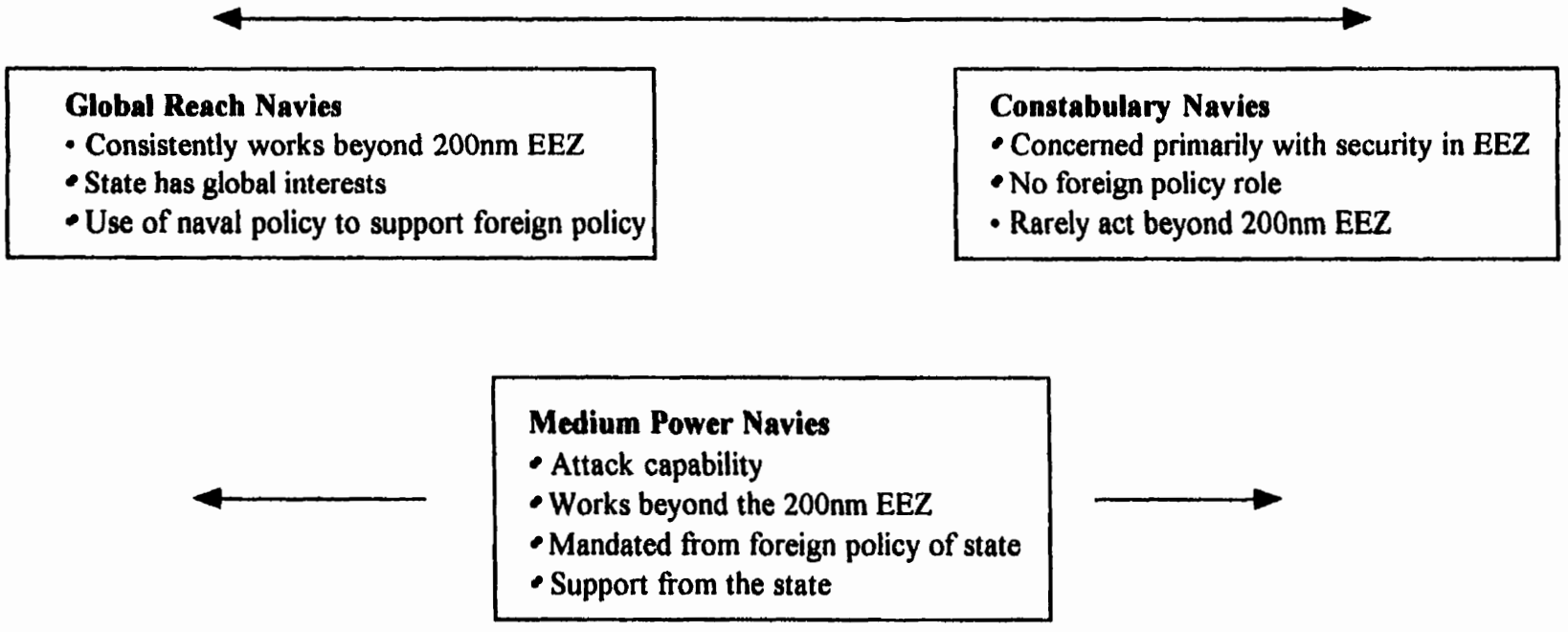
[6] 1994 Defence White Paper, p. 27

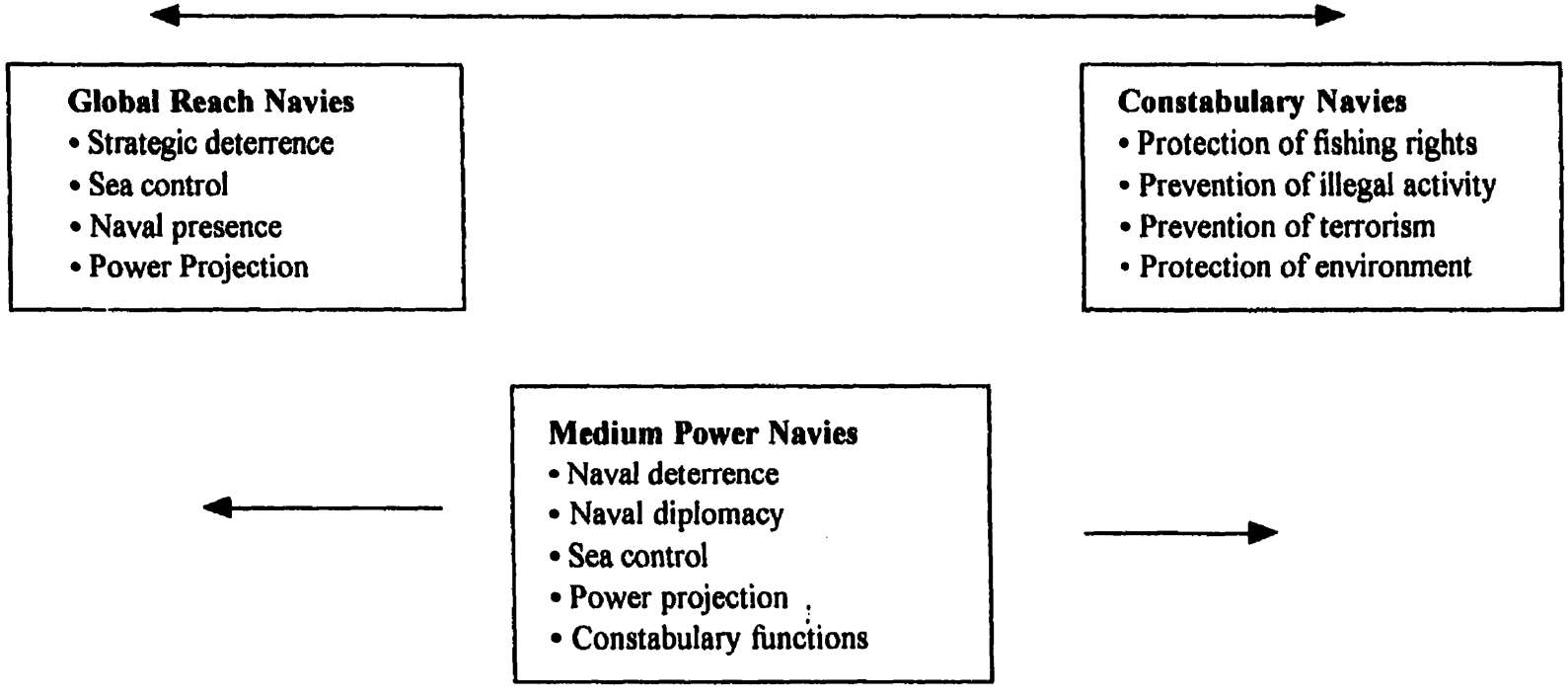
With these two opposite results from this study, I believe that we can conclude that Canada does not have the "correct" navy, because it does not fall completely into either end of the spectrum's capabilities, but it has the "expected" navy. It is neither big enough to send a large number of ships abroad to spend significant time away from home shore but neither is it so small that it rarely travels beyond the 200nm EEZ. As it is, the Canadian Navy is the compromise between international alliance expectations and domestic industrial desires on the one hand and ambivalent public opinion and decreasing government financial support on the other. That being the case, it would seem that the Canadian Navy is a true medium power navy as it tries to meet both sides' expectations as best it can.

Appendices

Appendix A - Definitional Spectrum of Navies



Appendix B - Functional Spectrum of Navies



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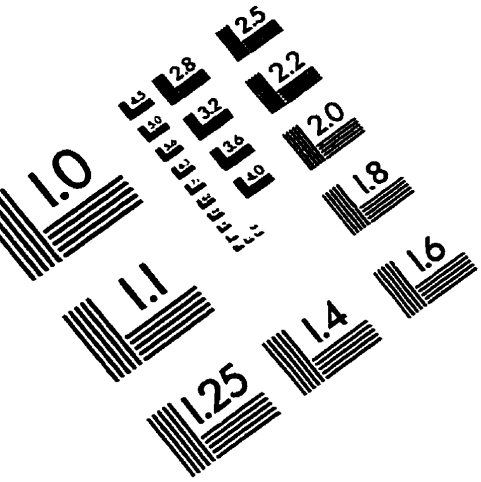

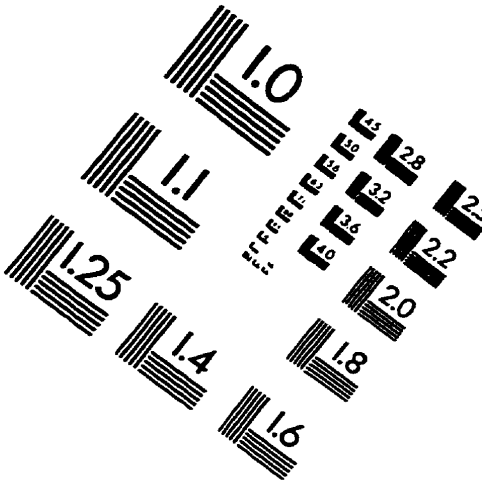

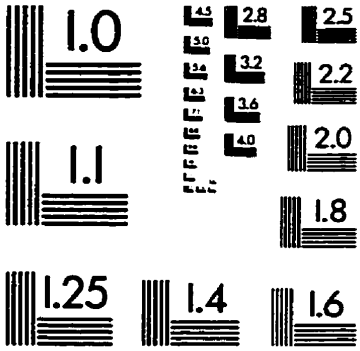

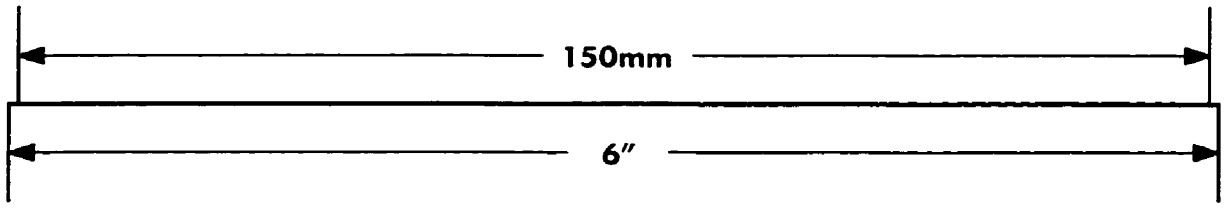

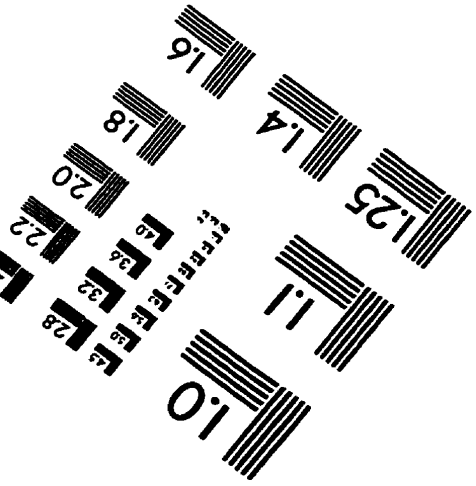

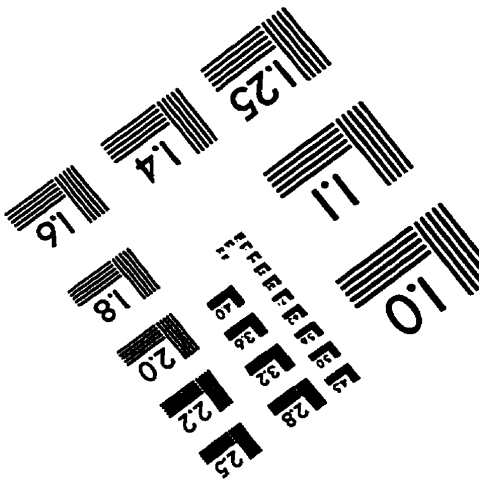

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