



MARITIME SOVEREIGNTY



**REPORT OF THE HOUSE OF COMMONS
STANDING COMMITTEE ON NATIONAL DEFENCE
AND VETERANS AFFAIRS**

**ARNOLD MALONE, M.P.
CHAIRMAN**

November 1990

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HMCS Terra Nova and a Sea King helicopter

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HOUSE OF COMMONS

CHAMBRE DES COMMUNES



Bill No. 28
Thursday, October 4, 1990
Tuesday, October 23, 1990
Wednesday, October 24, 1990
Tuesday, October 30, 1990
Chairman: Arnold Malcott

Bill No. 28
Le jeudi 4 octobre 1990
Le mardi 23 octobre 1990
Le mercredi 24 octobre 1990
Le mardi 30 octobre 1990
Président: Arnold Malcott

Minutes of Proceedings and Evidence of the Standing Committee on National Defence and Veterans Affairs / Procès-verbaux et témoignages du Comité permanent de la Défense nationale et des affaires des anciens combattants

MARITIME SOVEREIGNTY
Défense nationale et des affaires des anciens combattants

RESPECTING

CONCERNANT

In accordance with its mandate under Standing Order 108(3), a study of Canada's Maritime Sovereignty / Conformément de son mandat en vertu de l'article 108(3) du Règlement, une étude sur la Souveraineté maritime

**REPORT OF THE
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CHAIRMAN'S FOREWORD

REPORT TO THE HOUSE

THE STANDING COMMITTEE ON NATIONAL DEFENCE AND VETERANS AFFAIRS

has the honour to present its

THIRD REPORT

In accordance with its mandate under Standing Order 108(2), your Committee undertook a study on Canada's Maritime Sovereignty. It has heard evidence from a range of expert witnesses and reports its findings and recommendations.

While much of this study reflects upon the non-military roles of the Canadian Forces such as drug investigations, search and rescue, and protection against terrorism, ocean polluters, the illegal use of ocean resources and illegal immigration, the Committee firmly believes that the first principle for our forces must be to maintain a fighting capability to defend, either directly or with our allies and friends, against an armed aggressor.

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THIRD REPORT

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David Lord
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undertook a study on Canada's Maritime Sovereignty. It has heard evidence from a range
of expert witnesses and reports its findings and recommendations in this report.
pour les Affaires étrangères
et le Commerce extérieur

Wolfgang Koerner
Jim Lee
Chairman of the Committee

Le greffier du Comité
Roger Préfontaine

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CHAIRMAN'S FOREWORD

Time has been distorted. The dramatically transformed relationship between the Warsaw Treaty Nations and the Soviet Union, as well as the revolutionary changes which have occurred in Eastern Europe in the past twenty months, have enhanced East-West relations such that it seems as though they have been fixed in place for many years. Most of the presumptions upon which Canada's defence and security policies have been based need to be re-evaluated.

In short, there is a requirement to re-assess our security needs, to redefine the risks and to be on the alert for new and different threats to Canadian interests.

To this end, the Standing Committee on National Defence and Veterans Affairs has undertaken this study on Maritime Sovereignty. During its investigation the Committee visited Canadian Forces Bases in Halifax and Shearwater, Nova Scotia and Esquimalt and Comox, British Columbia. All members were impressed by the degree of dedication, commitment and professionalism of our military personnel. We concluded that too few Canadians are aware of the enormous amount of good work undertaken each day by the Canadian Forces in protecting and ensuring Canada's security. Most citizens perceive our naval, air and land forces as being singularly committed to the task of training and equipping for a hot war; too few are aware of the important tasks they undertake daily in the protection of Canadian lives, laws and resources.

The Committee saw a great need for the Armed Forces to continue to carry out these para-military roles. It is a rare day when Canadian Forces on the East or West coast are not involved in a search and rescue effort. In 1989 the Canadian Forces were involved in 8,233 search and rescue operations, 6,611 marine incidents. In 1988, \$397 million worth of illegal drugs were seized as they were being smuggled into Canada, and it is estimated that this represents only about one-quarter of the illicit drugs entering the country annually. Our Forces must also be ready and able to protect Canadians from potential terrorist attacks. Most international terrorists have military training and commonly use military equipment. It is important to every citizen that we have a well-trained Navy with adequate surveillance and communications equipment. Combined with proper coordination among numerous government departments, crimes against Canada can be deterred.

While much of this study reflects upon the non-military roles of the Canadian Forces such as drug interdiction search and rescue, and protection against terrorism, ocean polluters, the illegal use of ocean resources and illegal immigration, the Committee firmly believes that the first principle for our forces must be to maintain a fighting capability to defend, either directly or with our allies and friends, against an armed aggressor.

The questions raised in this report, as well as the continuing political and military changes transforming East–West relations, will lead the Committee to engage in a study of *Confidence Building and Verification* in the upcoming months. In addition to examining the current East–West relationship, it will be important to assess how the lessons learned in Europe by the former adversaries in the Cold War might be used elsewhere to help ensure global stability and predictability.

As Chair of the Committee, I wish to salute the participation of all Members who worked so diligently to advance the cause of peace and security. They did so without a trace of partisan objectives. Additionally, on the behalf of all Committee Members, I would like to thank all witnesses for their candid and expert testimony. We offer special thanks to the military staff of Maritime Command and Maritime Command Pacific for sharing their expertise.

Finally, I wish to acknowledge the excellent work of the Clerk of the Committee and of our research staff from the Library of Parliament and from the Parliamentary Centre for Foreign Affairs and Foreign Trade. They have given excellent counsel, untiring effort and good humour.

The Committee looks forward to undertaking new studies in this period of rapid change. There could not be a more interesting and challenging period in which to be involved in questions of Canada's peace and security. We have been privileged to undertake this study.

Arnold Malone, M.P.
Chairman

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MARITIME SOVEREIGNTY

INTRODUCTION

To argue that we are living in a fundamentally changed international environment is to state the obvious; however, important questions still remain. The Cold War has come to an end and the structures through which international relations have been conducted for the last 40 years are either withering away or undergoing a reevaluation of their primary purpose. While the only remaining task for the Warsaw Pact is the writing of its epitaph, NATO will probably remain an important instrument for the enhancement of stability. At the same time, NATO can be expected to place greater emphasis on its political, rather than military, dimension.

Although the warming of relations between the superpowers can only be regarded as positive, this will make little difference to the basic tasks of their navies. At times they will limit each other's actions, while on other occasions they may act in concert, but their purpose of furthering their countries' maritime interests will remain. And, as it does today, the submarine nuclear deterrent will remain the last guarantee that neither side can make a bid for overall dominance.⁽¹⁾

But while the main actors and their basic maritime interests will remain the same, this cannot be said of their respective allies. For the last 45 years, the Soviet and American navies have been backed by the naval forces of the lesser powers that belonged to their respective alliances. This is the aspect of naval affairs that will change the most in the coming years. It will be increasingly difficult for both the Soviet Union and the United States to preserve any real military alliance when no actual threat is apparent.⁽²⁾

The traditional post-war fear of Canadians has been that of a nuclear war between the superpowers, with themselves caught in the middle. Canada's membership in NATO and its cooperation with the United States in the defence of North America was seen as a way of helping avert such a disaster. However, with the threat of nuclear war diminishing, Canada may find reason to rethink its current commitments to these alliances.⁽³⁾

Historically, Canada's maritime defence strategy and its maritime forces have been conditioned by collective security and East-West relations in the climate of the Cold War, as well as by national interests. As East-West relations change and the international

(1) C.D. Maginley, "Maritime Priorities in the Post-Cold War Era: The Necessary Redeployment of Canada's Maritime Resources," written submission to the House of Commons Standing Committee on National Defence and Veterans Affairs, July 1990, p. 1. See also, Maginley, "What Do We Do With Our Forces?" Policy Options, September 1990.

(2) *Ibid.*

(3) *Ibid.*

environment becomes increasingly restructured, Canadian maritime strategy must also adjust. Henceforth, the smaller maritime powers can be expected to pursue their own interests and, as argued by Rear-Admiral Fred Crickard (ret.), a research associate of the Centre For Foreign Policy Studies at Dalhousie University, "as the potential of Canada's emerging maritime interest grows, the cost of development and protection will be high and will require sustained public support. Navies are costly, but not having the right one when you need it could be even costlier."⁽⁴⁾ Indeed, prudence dictates that we retain a general purpose force as large as is feasible, under the financial restraints of the time. Such a force would retain acquired technical expertise and would also be capable of expansion in whatever direction were deemed necessary.⁽⁵⁾ The importance of ensuring such a force has recently been illustrated by Canada's participation in the international effort undertaken in response to Iraq's invasion of Kuwait.

Based on current plans, Canada's naval force will include the *Halifax* class frigates now under construction and the *Tribal* class destroyers. To this force must then be added whatever is necessary to ensure the effective implementation of Canadian maritime policy in the nineties and beyond. In the late 1970s, the Department of National Defence identified a requirement for some 24 frigates to fulfill its mandate. These plans were altered by the 1987 White Paper on Defence, and the total number of frigates to be built is currently under review. The major challenge confronting Canadian maritime policy may not be "Soviet submarines" or the "resupply and reinforcement of Europe," but rather, the effective control of our coastal waters and the 200-mile economic zone. It is with a concern over our ability to exercise this control that we have undertaken our study of maritime sovereignty.

Throughout our deliberations, it became apparent that modern challenges require that we understand "sovereignty" in a broader sense than a traditional and legal approach would suggest. We have focused much of our attention on "non-military" threats, including the need to protect our marine environment and its resources, the interception of drug smuggling, international terrorism and illegal immigration. As well, the Committee addressed the need for an expanded search and rescue capability on the part of Canada's maritime forces. Given that a variety of departments share responsibility for the protection of our maritime sovereignty, the Committee was interested in determining whether the present division of jurisdiction among departments is appropriate, and whether interdepartmental coordination in the discharge of responsibilities is effective.

(4) House of Commons, *Minutes of Proceedings and Evidence of the Standing Committee on National Defence and Veterans Affairs*, (hereafter referred to as Proceedings), 13:7, 13:9.

(5) Maginley, "Maritime Priorities in the Post-Cold War Era" p. 2.

In the course of its study the Committee was drawn to the conclusion that equipment designed for maritime surveillance and control is most effectively operated under the command of the Department of National Defence. This department is able to use equipment resources in the widest variety of situations to provide overall protection against threats to the security of Canada and Canadians. As we become more aware of the diversity and scope of threats to our national security, the concept that military aggression is the only danger to our country's survival against which the Armed Forces provide protection must give way to a broader view -- the view that Canada's military has a crucial role to play in non-military activities which protect our laws, our social fabric and our human and natural resources.

In making choices for the future, we also need to remember that defence policy equals equipment plus organization. Strategic military and policy declarations will only be as good as the various platforms, weapons, equipment, etc. that are available, trained and in working order. Because of the time lag in new equipment purchases, operational defence policy can change only over a considerable period of time, making it imperative that we get the logic right before rushing into hardware decisions.

(1) Proceedings, 1974.

(2) Ibid.

CHAPTER I

SOVEREIGNTY IN A CHANGING WORLD

As the dynamics of state relations change, the principles according to which we order these relations will also require adjustment. It is for good reason that our diplomatic language today includes precepts such as confidence-building and common security. Such principles are not evidence of some newfound altruism, but rather bear witness to the fact that we can best stave off catastrophe by coming to grips with the increasingly interdependent nature of our existence. Thus, our understanding of sovereignty, and what we perceive to be the most immediate threats thereto, also demand some rethinking.

A. Toward a Broader Understanding

Sovereignty was defined before the Committee as, "the prevention of trespass, the provision of services and the enforcement of national and international law within (Canadian) territory, waters and airspace."⁽⁶⁾ Both the 1971 and 1987 Defence White Papers emphasized the importance of maintaining sovereignty. The first, taking advantage of a then fairly benign international environment, tended to define sovereignty and the role of the forces in essentially non-military and quasi-military terms, highlighting the importance of matters such as fisheries and environmental protection. The 1987 White Paper, on the other hand, tended to stress the military aspects of sovereignty, emphasizing such issues as maritime coastal defence. Given the challenges of the future, we suspect that a middle ground between these will prove the most appropriate. The Committee thus finds itself in agreement with Martin Shadwick, of the Centre for International and Strategic Studies, in concluding that:

...for the 1990s, we need a hybrid approach that takes into account the non-military, the quasi-military and the military requirements. We have to get an approach that embraces the full spectrum of roles for the future. I think this will increasingly require, down the years, a well-thought-out, flexible and multi-tasked approach to maritime sovereignty.⁽⁷⁾

In making choices for the future, we also need to remember that defence policy equals equipment plus organization. Strategic theorizing and policy declarations will emerge as little more than vacuous platitudes if suitable personnel and equipment are not available, trained and in working order. Because of the time lag in new equipment purchases, operational defence policy can change only over a considerable period of time, making it imperative that we get the logic right before rushing into hardware decisions.

(6) Proceedings, 17:14.

(7) Ibid.

At the same time, we must remember that the forces shaping our future cannot be controlled by individual governments. While nations cherish their independence, we all share common concerns and are victims of common tragedies. The effects of pollution have an increasing transboundary character, as evidenced by the widespread concern over acid rain, marine pollution and the threat of global warming.

Increased interdependence is inevitable and genuine security can only be achieved through cooperation and military restraint. In the long run, our common security will depend more on factors such as sustainable development, a healthy environment and socio-economic justice than it will on the pursuit of military advantage.

B. The Military

The traditional justification for the maintenance of the Canadian Forces may not be sufficient in the context of the 1990s. The future duties of the Armed Forces may be incompatible with current equipment and tasking. However, in meeting new challenges, we must be careful not to let basic capabilities decline. Public scepticism over the utility of maintaining a given force structure may be due to the fact that much of the public is not aware of the varied day to day duties performed by the forces as part of their role in aid to the civil authority.

Canadian defence policy is currently managed in a political environment characterized not only by a declining concern with an external threat, but also by the belief that whatever remains of that threat, it can be met by others who no longer need a military contribution by Canada. If we are to prevent public indifference to military preparedness, the public will need to be able to see an ongoing clear connection between Canadian military policy and Canadian security. If this cannot be provided, then public support for adequate defence spending will continue to wither.

It is difficult to predict future requirements. Yet we must not lose sight of the need to maintain an effective capability. As argued by Major-General G.R. Cheriton (ret.) when appearing before the Committee:

Policymakers must also bear in mind that the precise future relevance of armed forces that must be sustained and modernized today, if they are to be available tomorrow, can never be predicted with confidence... they comprise a small insurance capability of fighting competence for eventualities that cannot be foreseen.⁽⁸⁾

Just as the public needs to understand and be better apprised of the various duties of the military, so too the military should not view a public request to partially shift its emphasis as denigrating its professionalism. There is no good reason why both non-military and military roles should not be appreciated by soldiers and civilians alike, provided the maintenance of a professional military force remains the first principle.

(8) Proceedings, 14:9-14:10.

In order to ensure that the public has a good awareness of the varied and essential roles performed by the Forces, the Committee recommends:

I That the Department of National Defence make a concerted effort to inform Canadians of the wide range of vital non-military activities it now performs.

While accommodations will have to be made, they should be done so in light of the fact that "...the custodial responsibilities of our land are our first duty" and that a neglect of defence responsibilities "...is a certain way of placing our sovereignty at risk." The Committee fully concurs with General Gérard Theriault (ret.), former Chief of the Defence Staff, when he went on to conclude that "the worst folly at this time would be to think that we no longer need any defence."⁽⁹⁾

C. Some Basic Elements

A sovereign state is one that can effectively administer and control its territories and, when necessary, defend its territorial integrity through the effective application of force, at times with the help of allies. Thus, as noted by General Theriault, our primary national responsibilities in terms of sovereignty and security are driven by two imperatives:

- a) the ability to deploy the means necessary anywhere within or on the perimeter of our country to ensure compliance with Canadian laws, and/or to provide a reasonable level of defence against any defensible and demonstrable threat directed against Canada; and
- b) secondly, we have to be more sensitive to the fact that the security of Canadian territory is of compelling strategic importance to the security of the U.S. Of itself that imposes on Canada a special responsibility which is underscored by the fact that the U.S. strategic nuclear deterrent has been, and will remain for some time, the ultimate guarantor of Western security. Thus, whether we like it or not, we must see to it that the U.S. should never feel threatened by a perceived vulnerability of Canadian territory or approaches.⁽¹⁰⁾

It is therefore important that Canada not only have the means to provide adequate surveillance and control of its territories, but that our military capability be such that we do not, by default, become a security risk to our most important ally. Currently, "...our ability to control our own territory is at best very marginal."⁽¹¹⁾

To argue the foregoing is not to suggest that the recognition of sovereignty requires an "absolute" control and surveillance capability. Sovereignty cannot be lost through inadequate occupation or control procedures and necessarily stems from more than just the ability to exercise a controlling function. Legitimate sovereignty claims are in no sense

⁽⁹⁾ Proceedings, 12:6-12:8.

⁽¹⁰⁾ Written presentation to the *Standing Committee on National Defence and Veterans Affairs* (SCONDVA) by General Gérard Theriault, 25 January 1990, p. 2.

⁽¹¹⁾ *Ibid.*

diminished by the unauthorized activities that might be detected by the surveillance of our territories and coastlines. However, a neglect of basic "policing" functions would only stand as an invitation for others to utilize Canadian territory in their interests, wherever and whenever possible. The temptation would be there for friend and foe alike. As noted by Alex Morrison, Executive Director of the Canadian Institute for Strategic Studies, "...it is our allies who at this very time are abusing the national interests of Canada in the area of the fisheries. To rely on our allies is to be sure that they will in the first instance act in their own best interests, as do all states..."⁽¹²⁾

Insofar as our laws must be both administered and enforced, the question which arises is what role should be undertaken by the Canadian Armed Forces in this regard. The administrative function, barring an emergency situation, is a civil one whereas enforcement could require military assistance.

While some may be inclined to argue that, given the easing of East-West tensions, the military could perhaps be effectively employed in a law enforcement capacity, especially in regard to matters such as illegal fishing and drug smuggling, there are those who counsel caution. Law enforcement, it is argued, is a civil responsibility and when defining new roles for our military, "...there should be no assumption that, if military security requirements are deemed to be diminishing, that the military should therefore become extensively involved in civilian law enforcement." As Mr. Ernie Regehr, of Project Ploughshares, went on to argue:

When Canadian laws are violated, it is not a challenge to sovereignty — rather it is a challenge to law and order within Canada... If people are fishing in violation of Canadian law, if drugs are being transported contrary to Canadian law, if toxic wastes are being dumped illegally, that is not a question of threatened or fragile sovereignty — that is a question of the administration of justice.⁽¹³⁾

The caution is not meant to suggest that the military does not have a legitimate role to play in providing assistance to the civil authority. It does, however, remind us that a society based upon civil liberty needs to maintain clearly the primacy of civilian authority.

D. The Arctic

When dealing with questions of sovereignty, the attention of Canadians is immediately focused on the Arctic. Because the area is "...scarcely populated and largely undeveloped, many Canadians appear to believe that Canada's sovereignty is fragile, not well founded, and thus threatened. Any foreign presence is, at best, regarded as suspect or, at worst, as a

(12) Written presentation to the SCONDVA by Alex Morrison, Executive Director, Canadian Institute for Strategic Studies, 25 January 1990, p. 6.

(13) Proceedings, 16:9.

direct threat to Canadian sovereignty.” In fact, however, Canadian sovereignty in the Arctic is well established. Our sovereignty over the Arctic Islands is well established in law and no country asserts a competing claim.⁽¹⁴⁾

The one area wherein our sovereignty claim is not recognized is with respect to the U.S. contention that the Northwest Passage is an international strait rather than an internal Canadian waterway. According to the Department of External Affairs, the Canadian position is that:

The waters of Canada’s Arctic archipelago are internal by virtue of historic title. Thus, Canada’s sovereignty over these waters, including the Northwest Passage, is absolute and unqualified. The Northwest Passage is not an international strait, not only because it has not been used for international navigation, but also since it is overlapped by internal waters. Neither the right of innocent nor the right of transit passage applies. Canada’s legal position is well-founded in fact and in law, and is widely accepted by other states.⁽¹⁵⁾

In 1988, Canada and the United States signed the Canada–U.S.A. Arctic Cooperation Agreement, which provides that Canadian consent be obtained in advance of every transit by a U.S. government-owned or-operated icebreaker through the waters of the Canadian Arctic archipelago, including the Northwest Passage. The Agreement came into effect in January 1988, and since, U.S. transits have been conducted under its auspices. While the Agreement can be seen to further Canadian interests, both the United States and Canada still maintain their initial legal positions with regard to the status of the Northwest Passage.⁽¹⁶⁾

Although Canada does not face much in the way of legal challenges to its Arctic sovereignty, the region is nevertheless subject to the same non-legal challenges affecting our other coasts. At some point, resource development in the region will increase and it is important that we be able to exercise effective control. Having clear legal title to the Northwest Passage would help ensure this, as would an enhanced surveillance capability. Therefore:

II The Committee recommends that the government consider improving its surveillance in Canada’s Arctic. In particular, the government should reconsider the cancellation of the Polar 8 icebreaker and examine the possibility of acquiring additional long-range patrol aircraft.

(14) Serge April, Director General, Legal Affairs Bureau, Department of External Affairs, Proceedings, 6A:1.

(15) Response by the Department of External Affairs to Questions Submitted by the House of Commons Standing Committee on National Defence and Veterans Affairs, 9 March 1990.

(16) *Ibid.*

As well:

III The Committee recommends that the government continue discussions with the United States with a view to finally resolving the dispute over the Northwest Passage in accordance with Canadian claims. The government should examine the possibility of unilaterally obtaining an International Court of Justice ruling on Canadian sovereignty over the Passage.

E. Non-Military Threats:

With respect to “non-military” sovereignty threats, Committee Members showed particular concern over problems relating to the protection of our fisheries, drug interdiction, marine pollution and how we can best effect appropriate responses. In relation to the question of illegal fishing, by virtue of the Law of the Sea Convention, Canada sets catch quotas for domestic and foreign fleets fishing in Canadian waters. Canadian authorities can also enforce Canadian laws relating to environmental protection, the exploitation of seabed minerals and oceanic research. However, the Law of the Sea Convention is mute on the subject of authority beyond the 200-mile limit. High seas fishing restrictions depend only on the goodwill of the countries involved in regional fisheries management organizations such as the Northwest Atlantic Fisheries Organization (NAFO), to which Canada belongs.

According to Victor Rabinovitch, Assistant Deputy Minister, International Affairs, Department of Fisheries and Oceans:

The major part of what we would call “illegal” fishing takes place outside the 200-mile zone and therefore in international waters, but it is fishing that is contrary to international management rules adopted by the relevant organizations.⁽¹⁷⁾

In the Pacific, in the past several years the serious implications of large-scale driftnet fishing have become increasingly apparent. Driftnet fishing, which involves the use of huge gillnets, which entangle both target and non-target fish species, mammals and seabirds, continues to be practiced by a number of Pacific nations. Canada is directly affected by this practice due to the harvesting of salmon of Canadian origin and has broader environmental concerns about the practice. It has supported the international campaign against large-scale driftnet fishing.

NAFO, which in theory manages the Northwest Atlantic fishery, the world’s richest, is responsible for establishing catch levels for all members. However, several countries ignore NAFO quotas. The main problem is the management of the straddling stocks on the Grand

⁽¹⁷⁾ Proceedings, 11:30.

Banks, of which two portions known as "the nose" and "tail" lie beyond the Canadian Exclusive Economic Zone (EEZ) and are vulnerable to virtually unregulated fishing.

Even though Canada as a member of NAFO participates in inspections beyond the Canadian 200-mile EEZ, it currently has no enforcement power that would permit putting an end to overfishing. During his appearance before the Committee, Francois Pouliot, Senior Assistant Deputy Minister, Corporate and Regulatory Management, Department of Fisheries and Oceans, stated:

In this latter boundary area, to which the fish migrate both inside and outside the Canadian zone, foreign fishing outside the zone is not well controlled despite efforts of the 12 nations to manage the fisheries on a multilateral basis through the organization called NAFO. Foreign fleets fish for upwards of 20,000 days per year in that area, and this overfishing has resulted in declines of the fish stocks...⁽¹⁸⁾

Victor Rabinovitch described the international inspection regime applied outside the Canadian Exclusive Economic Zone:

...Beyond the 200-mile zone, there is a joint international inspection scheme ... conducted under the auspices of NAFO... Under that scheme, vessels of other flag states voluntarily submit to inspections on the high seas. Those inspections are conducted routinely, primarily by Canada. We are out there on the nose and tail of the Grand Banks and on the Flemish Cap, which is about 280 miles off our coast. Canada is the only coastal state that is present and inspecting. However, certain other states do place inspection vessels out in the area. The Soviets normally place one, sometimes two inspection vessels... That international scheme is voluntary. Information gathered from those inspections is then passed through the NAFO secretariat, and the flag state is informed of any possible violations that are detected.⁽¹⁹⁾

However, in practice, several flag states systematically ignore violation notices and continue overfishing. Moreover, some NAFO members within the European Community countries abide by national quotas considerably higher than those set by NAFO.

While the Committee recognizes that the difficulties attendant upon the protection of our fishing resources can best be minimized through international cooperation, it is important that we effectively deter illegal fishing within our EEZ. At the same time, if we are to protect our living marine resources, it is imperative that we properly manage the environment in which they grow. Concern over pollution and its potentially devastating consequences is a matter of great public concern and it is imperative that we have an effective, and well-coordinated, response capability.

Another area of focused concern was the matter of drug trafficking. Members were especially struck by the apparent growth in the availability of illicit drugs and the possibility

(18) Proceedings, 11:9.

(19) Ibid., 11:33.

that increased drug interdiction efforts in the United States might tempt traffickers to look more to the Canadian market or to augment their use of routes through Canada to the United States. According to Royal Canadian Mounted Police Commissioner Norman Inkster, it is estimated that Canadians spend approximately \$10 billion a year on illicit drugs. He went on to underline that this is "at best a well intentioned estimate" based on seizures in Canada and elsewhere, as well as on knowledge of production in various countries and on knowledge of what is not seized. The RCMP estimates that about 200 tonnes of cocaine are produced annually and about 20 tonnes are seized in the United States and Canada. "If those estimates are accurate, 180 tonnes were sold and consumed," Commissioner Inkster said.⁽²⁰⁾ The United States, however, has increased its estimate of Andean cocaine production to 775 tonnes from 400 tonnes, based on seizures of 42 tonnes in various American cities during a six-week period in 1989.

The following chart, based on statistics contained in the RCMP's National Drug Intelligence Estimate 1988/89, indicates the movement of various illicit drugs into Canada by mode of transportation in 1988, expressed as percentages of the total amount of that particular incoming drug.

Figure 1⁽²¹⁾

	<u>Air</u>	<u>Land</u>	<u>Sea</u>
Heroin	88%	8%	4%
Cocaine	25	55	20
Chemical Drugs	10	89	1
Marijuana	60	10	30
Hashish	30	10	60
Liquid Hashish	85	14	1

The chart reveals that bulkier drugs are often moved by ship. No figures are available on air transportation of illegal drugs over Canada's maritime approaches, or what percentage moves by small, unscheduled aircraft. Furthermore, no estimates were provided to the Committee of what amounts of illegal drugs transitting Canada are destined for the U.S. In October 1989, it was reported that according to unidentified U.S. Drug Enforcement Administration officials, two or three 500 kg loads of cocaine pass through the Maritimes undetected every month en route for the United States.⁽²²⁾

Concerning immigration, under international law all sovereign states have the right to close their borders to foreign nationals. At the same time, international conventions

(20) Proceedings, 9:9.

(21) Royal Canadian Mounted Police, *National Drug Intelligence Estimate 1988/89*, Ottawa, 1990.

(22) "Hiding the Drug Money," *MacLean's*, 23 October 1989, p. 42.

provide a minimum of rights to those claiming refugee status, particularly those claiming that their lives would be in danger if they were returned to their own country. Refugee claimants also have the right to have their cases heard, while receiving countries have the right to verify and evaluate claims. Refugee status can only be refused once this often long and costly procedure is completed. In the case of Canada, the refugee determination system has been overburdened for a decade, principally by "economic refugees" seeking a better standard of living than is available in their native lands.⁽²³⁾

To control the influx of economic immigrants a number of countries have adopted dissuasive measures with the aim of encouraging potential immigrants to stay in their home countries and blocking would-be economic refugees. While some states respect the principle of not returning refugee claimants to their own countries, there is no restriction on diverting such claimants to a third-party state. Those arriving by ship can be refused entry to the country and towed into international waters.⁽²⁴⁾ However, in such cases there is a legal obligation to ensure that the ship and its passengers can attain their new destination safely.

With respect to illegal immigrants and refugee claimants, relatively few have arrived in Canada by sea, the only recent incidents being the highly publicized cases of the 174 Sikhs who landed in Nova Scotia in July 1987 and the 155 Sri Lankan Tamils who arrived in Newfoundland in August 1986. Canada's geographic distance, the amount of organization required for such efforts and international intelligence have apparently been sufficient to discourage large numbers from attempting entry via the sea. Air and ground transportation remain the preferred methods.

In the case of terrorism, the Committee was informed that the measures necessary to resolve single terrorist incidents on land "...are in place and can be assumed to match the threat at least as it is currently perceived." This situation, however, cannot be said to hold for the maritime situation. Indeed, Major-General Cheriton, former Chairman of the Counter Terrorism Task Force, told the Committee that once the maritime factor is introduced, "...complications increase by a factor of three and quickly exceed the resources available in terms of equipment, skills and training."⁽²⁵⁾

(23) The Honourable Benoît Bouchard, Minister of Employment and Immigration, *The Refugee Challenge: Time for a World Response*, in Alan E. Nash, ed., *Human Rights and the Protection of Refugees under International Law*, Canadian Human Rights Foundation/Institute for Research on Public Policy, 1988, p. 14.

(24) Guy Goodwin-Gill, *The Refugee in International Law*, Oxford, Clarendon Press, 1983, p. 84.

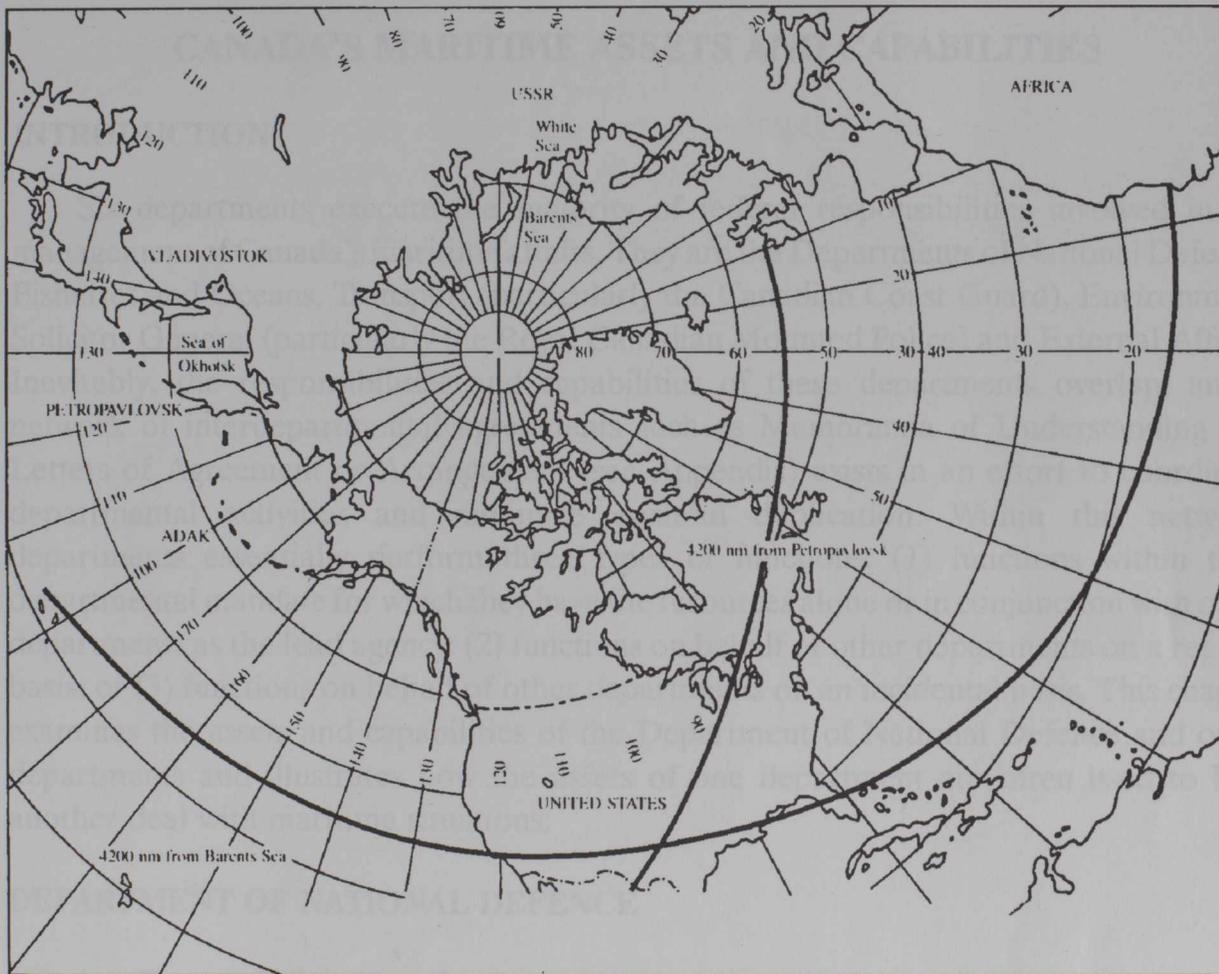
(25) Proceedings, 14:12.

While Canada has experienced several land-based terrorist incidents, it has not experienced any incidents of maritime terrorism. At the same time, the mere fact that we have not suffered such an incident does not mean it will never occur. In these matters, it is important that we at least "...take certain measures and postures in anticipation of the events."⁽²⁶⁾ Therefore, as an initial step:

IV The Committee recommends that the government consider the establishment of a maritime counter-terrorism plan.

(26) *Ibid.*

Maximum Range of Soviet Submarine-Launched Ballistic Missiles Fired from Arctic Bastions



Source: Canadian Centre for Arms Control and Disarmament

The capabilities and the kind of equipment Canada's maritime forces now possess are the result of a number of strategic and historical factors. At the end of the Second World War, Canada's large maritime forces were substantially reduced. But the small peacetime force which resulted maintained the anti-submarine warfare (ASW) expertise gained in battle. Indeed, Canada's ocean forces to the defence of North America in cooperation with United States forces, and to the protection of NATO's sea lines of communication (SLOCs) in cooperation with allied forces, as well as the need to ensure the surveillance and control of Canadian territorial waters, adjacent ocean areas and the Arctic archipelago, called for a combat-ready general purpose maritime force with anti-submarine capabilities. Over the years, the priority accorded by Canadian defence planners to anti-submarine capabilities has varied a great deal. In the 1950s, when land-based intercontinental ballistic missiles (ICBMs) became the main strategic weapon and when war between the superpowers was

CHAPTER II

CANADA'S MARITIME ASSETS AND CAPABILITIES

INTRODUCTION

Six departments execute the majority of federal responsibilities involved in the management of Canada's maritime affairs. They are the Departments of National Defence, Fisheries and Oceans, Transport (particularly the Canadian Coast Guard), Environment, Solicitor General (particularly the Royal Canadian Mounted Police) and External Affairs. Inevitably, the responsibilities and capabilities of these departments overlap, and a network of interdepartmental agreements such as Memoranda of Understanding and Letters of Agreement or Arrangement (see Appendix) exists in an effort to coordinate departmental activities and minimize wasteful duplication. Within this network, departments essentially perform three types of functions: (1) functions within their departmental mandate for which they have the resources alone or in conjunction with other departments as the lead agency; (2) functions on behalf of other departments on a regular basis; or (3) functions on behalf of other departments on an incidental basis. This chapter examines the assets and capabilities of the Department of National Defence and other departments and illustrates how the assets of one department are often used to help another deal with maritime situations.

DEPARTMENT OF NATIONAL DEFENCE

A. Factors Influencing the Composition of Canadian Maritime Forces

1. The Strategic Situation

The capabilities and the kind of equipment Canada's maritime forces now possess are the result of a number of strategic and historical factors. At the end of the Second World War, Canada's large maritime forces were substantially reduced, but the small peacetime force which resulted maintained the anti-submarine warfare (ASW) expertise gained in battle. Indeed, Canada's commitment to the defence of North America in cooperation with United States forces, and to the protection of NATO's sea lines of communication (SLOCs) in cooperation with allied forces, as well as the need to ensure the surveillance and control of Canadian territorial waters, adjacent ocean areas and the Arctic archipelago, called for combat-ready general purpose maritime forces with anti-submarine capabilities. Over the years, the priority accorded by Canadian defence planners to anti-submarine capabilities has varied a great deal. In the 1960s, when land-based intercontinental ballistic missiles (ICBMs) became the main strategic weapon and when war between the superpowers was

believed to imply a swift escalation to nuclear warfare, the attention paid to the submarine threat by Canadian and other NATO planners reached a low ebb. Since then, however, naval forces in general and anti-submarine capabilities in particular have been steadily receiving higher priority.

Indeed, since the development by the Soviet Union of its first nuclear-powered submarines capable of launching ballistic missiles (SSBNs), Canada and its NATO allies have been constantly improving the detection and attack capabilities of their anti-submarine forces. Because of the short range of their missiles, the early Soviet SSBNs had to get close to the North American coast in order to be able to strike targets in Canada and the United States. To improve the chances of NATO ships and aircraft of locating the SSBNs in the vast oceans, the United States cooperated with its allies to establish a complex network of underwater detection equipment in order to monitor the deployment of Soviet submarines from their home bases in the Kola peninsula to their combat stations off North America. The Sound Surveillance System (SOSUS), for example, is made up of very sensitive hydrophones moored to the ocean floor in chokepoints such as those between Greenland, Iceland and the United Kingdom, the GIUK gap, through which Soviet submarines must pass through to reach the Atlantic Ocean.

In recent years, however, the Soviet Union has developed submarine-launched ballistic missiles with enough range to reach North America from Soviet Arctic waters, thus allowing most of the Soviet SSBN force to stay submerged close to its home ports in bastions, areas of the Arctic Ocean defended by Soviet vessels and aircraft. While this has all but eliminated the presence of Soviet SSBNs off the North American coast, strategic and technological developments increased the threat posed to Western shipping and military installations by Soviet conventionally-powered and nuclear-powered attack submarines (SSKs and SSNs).

Indeed, the protection of allied shipping took on new importance in recent years in view of changing strategic thinking. There was a growing consensus, at least within military circles, that if war broke out in Europe, it would not necessarily become a nuclear war from the start, but would rather begin with a much longer period of conventional warfare than that which had been planned for during the 1960s and 1970s. The longer NATO's conventional forces in Europe would have to sustain their resistance to an invasion, the more dependent they would become on reinforcements and supplies coming from North America. Thus, the protection of the sea lines of communications through which most of the supplies would reach Europe became even more important in NATO planning than in the past. The likelihood of a conflict between NATO and the Soviet Bloc has greatly diminished in recent months, but so long as the presence of Canadian and United States

troops in Western Europe remains necessary to ensure peace and stability, NATO military planners will continue to give high priority to the protection of the supply lines between North America and Western Europe.

Military planners must also take into consideration the fact that the development of submarine-launched cruise missiles (SLCMs) has significantly enhanced the capabilities of submarines. Soviet SSKs and SSNs armed with SLCMs could threaten not only shipping, but also command, communications and harbour installations in North America as well as in Europe. However, in order to put targets in Canada and the United States within the range of their cruise missiles, Soviet SSKs and SSNs, unlike the new SSBNs, would have to venture far from their home waters and approach North American shores. Thus, the network of underwater sensors the West has established over the years to monitor the deployment of Soviet SSBNs now plays a key role in the tracking of other types of Soviet submarines capable of menacing Western interests.

In keeping with its commitments to the defence of North America and to NATO, Canada has participated fully in Western efforts to counter the Soviet submarine threat by patrolling the approaches to North America, by contributing ships and aircraft to NATO patrols in the Atlantic and by sharing with its allies the information gathered by the surveillance network. The focus of Canadian naval activity has traditionally been in the Atlantic Ocean because of the importance of trans-Atlantic trade and NATO's sea lines of communications and as a result, Canada's maritime forces on the Pacific coast are much smaller than those in the Atlantic. In recent years, however, more and more attention has been paid to the Pacific Ocean because of its growing strategic importance and because of the significant trade which now exists between Canada and the Pacific Rim countries.

Vancouver now handles more marine cargo than Toronto, Montreal, Quebec City and Halifax combined. Trans-Pacific trade from North America has been greater than trans-Atlantic trade for more than six years. Meanwhile, tanker traffic along the West Coast between Alaska and the contiguous United States now accounts for between one-fifth and one-quarter of that country's oil needs. The potential for small and catastrophic oil spills has grown. Colonel J.E. McGee, Base Commander at CFB Comox, told Committee Members: "The threat of large carriers leaking large quantities of pollutants must be a fundamental concern of every maritime nation, each of which needs the capability to detect and prosecute such polluters." In a brief to the Committee, Douglas Ross, the Director of the Centre for International Studies at Simon Fraser University, indicated that the fisheries enforcement requirement on the Pacific coast is likely to grow as driftnet fleets deplete open ocean stocks of fish, illegal immigration from Asia will merit effective sea patrol, tighter anti-pollution regulations will necessitate greater enforcement capability, and combatting drug smuggling on the West Coast is likely to call for more

resources. The ability to satisfy these non-military demands for ocean surveillance and control has to be weighed in the balance with current military commitments in the region, which involve arrangements with the United States for joint defence of 1,660,000 square km of the North Pacific. To help carry out that task, Canada currently provides one helicopter-equipped destroyer, seven other destroyers, one supply ship, four Aurora aircraft, CF-18 fighter aircraft, six small patrol ships and a small number of search and rescue aircraft. Therefore:

- V. Given the increased importance of trade and other maritime activities in the region, the Committee recommends that greater emphasis be placed on Canada's Pacific forces.**

2. The Technological Factor

In order to fulfill these commitments, Canada's maritime forces, like those of other countries, have had to keep pace with the technological revolution in naval warfare. Indeed, for over 30 years, Cold War antagonism between East and West fuelled a high stakes technological race which saw every advance in Soviet submarine technology matched by an upgrading of the anti-submarine capabilities of Western maritime forces. The Soviet Union has worked very hard over the years to reduce the noise produced by its submarines and the West has had to constantly improve its hydrophones in order to maintain its ability to monitor Soviet submarines.

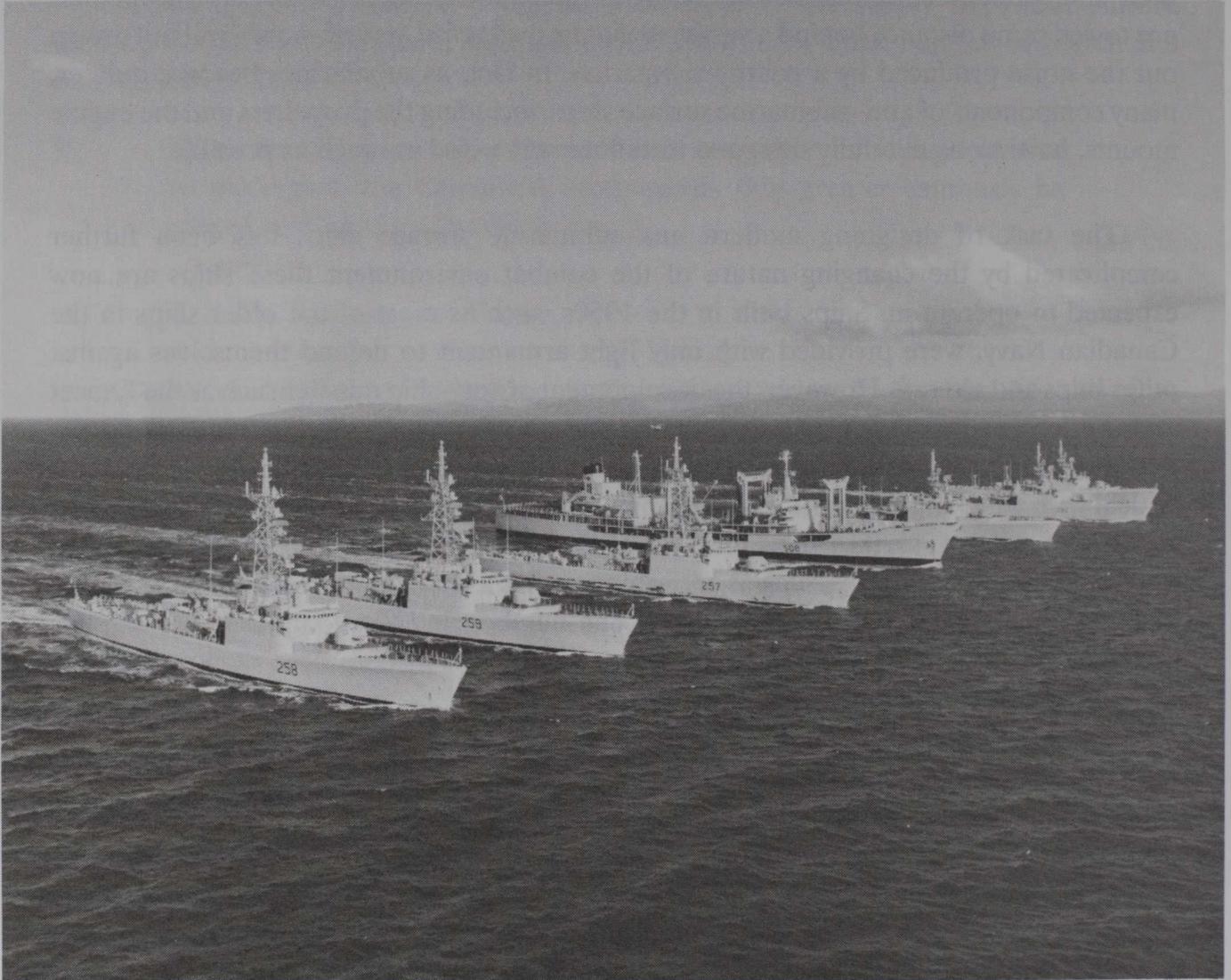
Indeed, the detection of submarines still depends to a large extent on acoustic equipment. During the Second World War, navies relied on active sonar which located submerged submarines when sound waves bounced off them. Today, submarine detection depends primarily on passive sonar which receives all the sounds in the ocean, including the noise produced by a submarine. Since the ocean is a very noisy environment and since submarines are becoming very quiet, it is becoming more and more difficult to detect submarines using acoustic equipment. As a result, more research is being done to develop non-acoustic detection technology which would be able to determine the position of a submerged submarine by detecting its wake, the effects of its exhaust on the water's temperature or other features of underwater operations.

Pending a major breakthrough in non-acoustic detection research, submarine detection will continue to depend for some time on the ever-increasing sensitivity of hydrophones and the ability of computers to quickly distinguish between the noise produced by a submarine and other noises. In order to provide wide area surveillance of the oceans in a period of increasingly quiet submarines, systems like SOSUS moored to the

ocean floor have had to be supplemented by the Surveillance Towed Array Sonar System (SURTASS) which consists of a long array of small hydrophones towed behind special slow-speed vessels. Smaller versions of SURTASS or the Canadian version, CANTASS, are also towed behind frigates and other types of vessels, including submarines, to improve their ability to detect submarines operating in their vicinity. These arrays of hydrophones are towed some distance behind a vessel so that its own noise, its self-noise, will not drown out the noise produced by a nearby submarine. In fact, as submarines become quieter, many components of anti-submarine surface ships, including the propellers and the engine mounts, have to be carefully designed to reduce self-noise as much as possible.

The task of designing modern anti-submarine surface ships has been further complicated by the changing nature of the combat environment these ships are now expected to operate in. Ships built in the 1950s, such as most of the older ships in the Canadian Navy, were provided with only light armament to defend themselves against other ships and aircraft. However, the development of anti-ship missiles such as the Exocet and the lessons learned in recent limited naval conflicts in the South Atlantic and the Persian Gulf have forced ship designers to significantly increase the ability of surface ships to deal with attacking ships and aircraft. Thus, in addition to complex submarine detection equipment, modern surface ships must now have sophisticated air defence and anti-ship radars and weapons systems, such as anti-ship missiles as well as missiles and guns capable of destroying incoming anti-ship missiles. The number and the complexity of weapons added to the three Canadian ships deployed to the Persian Gulf area demonstrate the complexity of the new naval combat environment.

The complexity of the combat environment above the surface highlights the value of using submarines in anti-submarine warfare. Although by no means invulnerable, submerged submarines have a certain advantage over surface ships which are constantly exposed to air attacks. Besides, since they operate in the same environment as the enemy submarines they are chasing, submerged submarines with towed-arrays and hull-mounted sonar often have better chances of detecting the noise produced by their prey than surface ships. Furthermore, improvements in submarine technology, such as better underwater endurance and more reliable powerplants, have improved their capabilities as anti-submarine platforms. However, experience has shown that anti-submarine forces must rely on teamwork between submarines, surface ships and aircraft in order to have the best possible chance of finding submarines. Indeed, despite the ever-increasing sophistication of anti-submarine equipment, detecting submarines and pinpointing their exact location still require considerable effort and the value of supplementing surface ships with underwater and aerial surveillance capabilities has been recognized by anti-submarine forces throughout the world.



Maritime Command ships in the Pacific

B. The Composition of Canadian Maritime Forces

1. Maritime Command (MARCOM)

a. Surface Fleet

Because of the time required to develop and produce new equipment in response to recent technological and strategic developments, Canada's Maritime Command finds itself in the middle of a modernization process which will take many years to complete. The process basically consists of replacing the 15 remaining *St. Laurent*, *Restigouche*, *MacKenzie* and *Annapolis* class destroyers built in the 1950s with 12 new Canadian Patrol Frigates (CPFs) now being built, as well as modernizing the four DDH 280 Tribal class destroyers built in the early 1970s as part of the Tribal class Update and Modernization Project (TRUMP)⁽²⁷⁾. The first new frigate, the *Halifax*, has undergone sea trials and will enter service 20 months later than planned.

The new frigates, together with the modernized Tribal class destroyers, will provide Maritime Command's naval squadrons with much more suitable ships for the modern naval combat environment they have to operate in during NATO and other operations. In addition to the latest anti-submarine equipment, including towed-arrays, the new frigates will be armed with Harpoon anti-ship missiles, Sea Sparrow surface-to-air missiles and a Phalanx 20 mm anti-missile gun, in addition to a Bofors 57 mm gun. However, the technological requirements of modern naval warfare are such that these heavily armed ships (compared to those of the 1950s), need additional help to defend themselves. The modernized Tribal class destroyers, equipped with improved weapons and command and control systems, will provide area air defence capabilities to accompanying frigates while coordinating their efforts to detect submarines. During its visit to CFB Esquimalt on Vancouver Island, the Committee toured HMCS *Huron*, which awaits its turn in the shipyard currently modernizing the *Algonquin* and the *Iroquois*. The Committee was given a briefing on the new equipment which will be added to the ships and on the current status of the work already underway as part of the estimated \$1.8 billion project.

The new frigates and the modernized Tribal class destroyers were slated to be supplemented at the turn of the century by four new NATO frigates as part of a multinational project created by a number of NATO countries known as NFR 90. The new NATO frigates would have featured advanced air defence capabilities, but for a number of reasons, including the changes in Eastern Europe, the multinational project was abandoned in early 1990. Maritime Command is still examining how this development

⁽²⁷⁾ For details on maritime assets, see Appendix.

affects future plans for the surface fleet, but of greater concern at the moment is the transition now underway from an obsolete to a modernized fleet. Since the last of the 12 new frigates is not scheduled to enter service until 1996 and since most of the four Tribal class destroyers will be in port during modernization in the coming months, the destroyers built in the 1950s have been modified in recent years under the Destroyer Life Extension (DELEX) project to keep them operating pending the arrival of the new ships. The deployment of three ships to the Persian Gulf area may affect the timetable for the withdrawal from service of the remaining old destroyers.

Committee members gained a firsthand impression of the navy's current operations and capabilities by spending a day at sea off Canada's Atlantic Coast aboard two destroyers, HMCS *Skeena* and HMCS *Margaree*, which entered service in 1957 are by no means the navy's most modern ships, but they and their crews demonstrated to the Committee how naval operations are carried out and how assistance can be provided to non-military operations such as RCMP efforts to stop the illicit entry of drugs into Canada and Department of Fisheries patrols of Canadian fishing grounds. Naval officers stressed that military personnel could deal effectively with such non-military tasks because of the high degree of skills and training required to undertake complex anti-submarine operations. The Committee was indeed impressed by the extent to which Maritime Command was already involved in non-traditional roles and was again struck by the need for the Canadian Forces to make the public better aware of their contributions to search and rescue missions and the assistance they provide to the civil authorities in police and other types of operations.

The day at sea also allowed the Committee to see other elements of the fleet in action, notably HMCS *Preserver*, one of Canada's three replenishment ships which can refuel and resupply warships at sea. Canada was a pioneer in the development of all-purpose ship-to-ship replenishment vessels. Maritime Command also has a number of small vessels for diving support, naval research and patrols of harbours and coasts which, through their many varied activities, contribute to the assertion of sovereignty in Canadian waters. The Naval Reserves play a key role in these and other duties.

b. Naval Reserve

Indeed, in recent years, greater attention has been paid to the Naval Reserve in order to develop its capacity to undertake its two wartime roles, Naval Control of Shipping (NCS) and Maritime Coastal Defence (MCD), which includes mine-clearing duties. During its visit to Halifax, the Committee was briefed on the planning now underway to prepare the Naval Reserve for the control of shipping role in Canada's harbours and the type of exercises used to develop expertise. In times of war or national emergency, the Naval

Reserve would monitor the position of merchant ships and would assist in organizing convoys or take whatever measures the Commander of Maritime Command deemed necessary. The Committee was especially interested in the possibility of using the resources available to the Naval Reserve to monitor emergency situations such as major oil spills and to assist in the coordination of cleanup operations.

The Maritime Coastal Defence role also offers capabilities which can be useful in both military and non-military tasks. From the military point of view, efforts are being made to bolster the mine-clearing capability which had been allowed to almost disappear. The renewed importance for NATO of the sea lines of communication between North America and Europe and the lessons learned in the Persian Gulf during the Iran-Iraq War have raised the priority accorded to mine countermeasures (MCM). Canada announced in June 1989 the selection of two contractors for the project definition phase in the purchase of 12 new Maritime Coastal Defence Vessels (MCDVs), which will have special equipment to clear mines. The equipment to be used is still under study, but the Naval Reserve has been gaining experience with techniques which could be used to detect underwater mines by using a remotely-piloted submersible developed by Sea-I Research Canada Ltd. called the MANTA. The Committee was able to ascertain the capabilities of the MANTA during a demonstration by the Naval Reserve at CFB Esquimalt.

As well as being used on the East and West coasts, the MCDVs will also operate in the Great Lakes and the St. Lawrence in order to provide mine-clearing and seamanship training for Naval Reserve divisions such as the ones recently established in the province of Quebec. Pending the delivery of the new vessels, two recently purchased minesweeper auxiliary vessels will fulfill training requirements. These and other small vessels will allow the Naval Reserve not only to receive better training in military tasks, but also to make available a pool of expertise and resources which can be drawn upon during non-military emergencies such as environmental disasters and search and rescue missions. Indeed, coastal defence is an important element of Canada's ability to assert its sovereignty in its waters. The enhancement of Naval Reserve capabilities in recent years is a welcome development, especially at a time when the use of small vessels along Canada's long coastline for drug smuggling is of increasing concern.

VI The Committee recommends that the enhancement of Naval Reserve capabilities should continue to receive high priority in Canadian defence planning.

c. Canadian Submarine Service

The modernization of its fleet of surface warships and the addition of 12 new MCDVs to its fleet of small surface vessels are significantly enhancing Maritime Command's ability to fulfill its commitments including sovereignty protection but, as other navies have found, a balanced naval force also requires underwater capabilities. The versatility of submarines which can work in conjunction with surface ships or patrol on their own, relying on their stealth and speed for protection, makes them valuable tools in anti-submarine warfare. In peacetime, naval forces also use submarines to provide realistic training for their surface vessels and patrol aircraft in order to sharpen their submarine detection skills and on occasion to supplement the surveillance capabilities of surface vessels in territorial waters. Thus, although equipped with only three operational submarines, the Canadian Submarine Service, which celebrated its 75th anniversary in 1989, is an important element of Canada's maritime forces, and its uncertain future is a cause for concern.

Indeed, the recent upgrading of the detection equipment and weapons of Maritime Command's three Oberon class submarines has increased their value as anti-submarine platforms, but with the end of their service life rapidly approaching, restrictions on their diving performance and other limitations are diminishing their effectiveness and increasing the urgency for a decision on their replacement. The Oberon class submarines were originally scheduled to be replaced in the late 1990s by nuclear-powered submarines (SSNs), as announced in the 1987 White Paper on Defence, *Challenge and Commitment*, but the cancellation of the SSN purchase in April 1989 and the cuts in the defence budget announced at the same time have forced a complete revision of replacement plans. As instructed in the April 1989 budget, Maritime Command has been examining alternatives to the purchase of SSNs including the acquisition of a number of conventionally-powered submarines (SSKs). Indeed, Canada still requires submarines to enhance the ability of its naval force not only to meet alliance commitments, but also to provide means with which to assert sovereignty in territorial waters.

Budget limitations, however, may mean that Canada may acquire fewer conventionally-powered submarines than the 10 to 12 SSNs it was planning to buy. Furthermore, the conventionally-powered submarines will not be as capable as the SSNs, notably in Arctic operations. Indeed, the growing strategic importance of the Arctic Ocean and the need for Canada to have boats capable of operating safely under the ice cap in Canadian Arctic waters in order to assert sovereignty were some of the reasons for the proposed SSN purchase and, although the level of East-West tensions have dramatically diminished, the necessity of providing Canada with surveillance capabilities in its Arctic waters has by no means disappeared. In considering alternatives to the SSNs, Maritime Command planners have to try to maximize the limited Arctic capabilities of

conventionally-powered submarines by examining proposed air-independent propulsion (AIP) systems which would allow such submarines to operate more safely and for longer periods of time under the Arctic ice cap than is presently possible. However, since AIP technology is still under development, the extent of under-ice capabilities remains to be determined with any certainty.

Another way of enhancing the capabilities of conventionally-powered submarines in the Arctic is to locate underwater sonar systems in chokepoints in Canadian Arctic waters through which submerged submarines have to go if they use the polar route. Once alerted of the passage of an unidentified submarine, Canadian conventionally-powered submarines would be able to lie in wait for it near the edge of the ice cap. The 1987 White Paper on Defence had indicated Canada's intention to deploy fixed sonar systems in its Arctic waters, but the cancellation of the SSN purchase and the limitations of Canada's present and future conventionally-powered submarines in Arctic operations make it even more important for Canada to proceed with the development and installation of such sonar systems. The development of sonar systems which can work effectively and reliably in the harsh and noisy environment of Arctic waters presents many technological challenges, but the Committee believes that the value of these systems in the Arctic is such that research should continue.

VII The Committee recommends that the installation of fixed acoustic sensors in Arctic waters capable of detecting intrusions from all directions and providing timely data, should proceed without delay.

Pending the installation of sonar systems in the Arctic and the acquisition of new submarines, Maritime Command will have to depend on the three old Oberon class boats. However, as was pointed out to the Committee during its visit to the Submarine Service headquarters in Halifax, the old submarines may have to be taken out of service before the new boats can be delivered, especially if the decision to acquire the latter continues to be delayed. A gap between the decommissioning of the old boats and the arrival of the new ones would not only leave Maritime Command without one of its components for a few months or perhaps years, but might also allow the expertise now within the submarine service to be lost. If this occurred, the training of the crews for the new boats could be costly and time-consuming. Such a time gap could nullify some of the benefits of recent improvements to training facilities such as the purchase of an old Royal Navy Oberon class submarine to give trainees firsthand experience without diverting the three ocean-going subs from operations. The time required to build new submarines, coupled with the rapidly approaching end of the service life of the three operational subs, means that there is less and less room for manoeuvre on this issue.

VIII Thus, as mentioned in its interim report tabled in the House of Commons on 20 December 1989, the Committee recommends that a decision on the purchase of conventionally-powered submarines should be taken without delay.

2. Maritime Air Group (MAG)

a. Helicopters

Maritime Air Group (MAG) is a component of Air Command, but its aircraft, both helicopters and fixed-wing patrol aircraft, are under the operational command of Maritime Command. Because of their speed and their ability to patrol wide areas of territorial waters, aircraft are an essential element of any maritime surveillance force, especially one like Canada's, which has such a long coastline to protect. Although designed primarily for anti-submarine warfare, the aircraft of Maritime Air Group also contribute significantly to the protection of Canadian maritime sovereignty through their participation in search and rescue and other operations assisting civil authorities.

The operation of anti-submarine helicopters from small warships like destroyers, which Canada in part pioneered, substantially enhances the capabilities of Maritime Command's small surface fleet. Equipped with torpedoes, and a sonar system they can dip into the sea while hovering, the Sea King helicopters now in use can work in close cooperation with the destroyers to detect and attack submarines or operate on their own some distance from the surface ships, thereby increasing the area these ships can patrol. Thus, the Sea Kings not only supplement the capabilities of Maritime Command's surface ships, but also provide the fleet with the flexibility it needs to meet its anti-submarine patrol commitments in Canadian waters and in areas of the Atlantic and Pacific for which it has responsibility. The availability of the Sea King helicopters for search and rescue missions and general surveillance operations in Canadian coastal waters also contributes to Canada's ability to monitor activities in its waters and to respond to new threats to its maritime sovereignty. In view of the ever-increasing strategic and economic importance of Canada's Pacific coasts and the need to bolster Canadian naval resources in the area, the Committee welcomes the recent decision to move all of 443 Squadron from the East coast to Patricia Bay airport near Victoria, British Columbia, instead of keeping only a detachment there.

However, the Sea King helicopters have now been in service for over 25 years, and maintenance is becoming a problem due to shortages of some spare parts and the age of the equipment. The need to replace the Sea Kings around the mid-1990s has already been addressed by the Department of National Defence, which has established the New

Shipborne Aircraft (NSA) project. The project is now in the definition phase. The EH-101 designed by a British-Italian consortium and selected by a number of NATO navies is the only contender for the Sea King replacement, other candidates having been eliminated in earlier stages of the NSA project, and prototypes are already undergoing flight testing in Europe. The performance of the new helicopters and the sophistication of their anti-submarine equipment should more than adequately complement the capabilities of the new frigates and updated Tribal class destroyers. About 40 new helicopters are required to equip all of Maritime Command's ships and to provide sufficient numbers for training. However, the Committee views with concern the delays in the New Shipborne Aircraft project caused by technical problems during the development phase in Europe and difficulties in assembling the consortium which will build the helicopters in Canada. Delays in the delivery of Canadian-built EH-101s may make it necessary to keep the Sea Kings in operation for longer than expected.

IX The Committee recommends that the Sea King helicopters be replaced as planned and that this be done as soon as possible to avoid costly stopgap measures.

b. Patrol Aircraft

To supplement the air surveillance capabilities provided by shipborne helicopters, Maritime Air Group also has patrol aircraft which can work in conjunction with Maritime Command ships and their helicopters to detect and attack submarines or operate by themselves to patrol wide expanses of ocean. These aircraft are a vital element of Canada's anti-submarine capabilities; the value of patrol aircraft in anti-submarine warfare was amply demonstrated during the Second World War. The ability of patrol aircraft to monitor fishing and shipping activities in the sea approaches to Canada also make them valuable assets in the assertion of Canadian sovereignty.

At the present time, Maritime Air Group's fleet of maritime patrol aircraft consists of 18 CP-140 Aurora long-range patrol aircraft. Three Arcturus aircraft, which are basically identical to the Auroras but lack the anti-submarine detection equipment, are on order. Prior to 1 April 1990, Maritime Air Group also operated a fleet of Tracker aircraft, but these aircraft were taken out of service as a result of the cuts in the Department of National Defence budget announced in the April 1989 federal budget. The Trackers were used mainly for general surveillance, their anti-submarine warfare equipment having been removed in the early 1970s. These small, twin-engined, medium-range patrol aircraft were ideal for monitoring fisheries activities, icebergs, pollution and a variety of other occurrences in Canadian coastal waters of interest to Canadian authorities, and they also participated in search and rescue operations. Thousands of patrols were carried out over

Canadian waters between the early 1970s and the April 1990 by Trackers flown by both Canadian Forces and Air Reserve pilots. It has been argued that the airframes could have given many more years of service, but the old piston engines were causing problems. There were plans to install new turboprop engines, but the April 1989 budget put an end to this project.

As noted in its interim report tabled on 20 December 1989, the Committee views with concern the withdrawal from service of the medium-range patrol aircraft and the lack of any immediate plans for a replacement. At a time when the surveillance of Canada's coastline is more important than ever in the face of new threats to Canadian sovereignty, this need ought to be addressed on an urgent basis. During the Committee's visits to the East and West coasts and its sittings in Ottawa, the implications of the retirement of the Trackers were fully discussed, as were the measures taken by the Department of Fisheries, the Department of the Environment and other departments who benefitted from the surveillance provided by the Trackers. Some of the measures taken by departments other than National Defence to compensate for the loss of the Trackers' surveillance capabilities are described in other sections of this report.

However, despite the loss of the Trackers, Maritime Air Group will still be involved in general surveillance of Canada's coastline. Indeed, before 1 April 1990, the surveillance patrols carried out by the Trackers were supplemented by patrols by Aurora aircraft which among other things provided up to 400 hours of patrols per year to the Department of Fisheries and Oceans. With the phasing out of the Trackers, the number of hours flown by Auroras to assist in the monitoring of fishing and other activities in Canadian waters will be slightly increased. However, the four-engine long-range Aurora aircraft equipped with sophisticated sensors and the latest torpedoes are primarily used for anti-submarine patrols as part of Canada's commitments to the defence of North America and the protection of NATO's sea lines of communications in the Atlantic. In addition to long flights over the Atlantic and the Pacific, the Auroras also carry out long patrols in the Canadian Arctic which assert Canada's sovereignty over the area. These Arctic patrols, known as NORPATs, flown a few times a month, provide surveillance of activities on land and in Arctic waters. The Auroras can detect submarines in open Arctic waters, but have limited anti-submarine capabilities when flying over the Arctic ice cap which hampers the operation of their sensors. Thus, Aurora operations in the Canadian Arctic are mainly of a general surveillance nature where activities are monitored visually, using visual aids like forward-looking infrared when flying at night or in bad weather conditions.

Maritime Air Group's fleet of 18 Auroras is often stretched to the limit in order to provide anti-submarine patrols in the Atlantic and the Pacific Oceans, surveillance flights in the Canadian Arctic to assert sovereignty and flights over Canadian coastal waters to

monitor the activities of fishing boats and to participate in search and rescue operations. Since at any one time, some aircraft are being used for training, are undergoing maintenance checks or are in transit, heavy demand is made upon the remaining operational aircraft. Indeed, most of the Aurora airframes have already passed the 5,000-hour mark of flying time and have already undergone a major overhaul. The proposed purchase of six additional Auroras announced in the 1987 White Paper on Defence would have alleviated the problem somewhat, but this was cancelled as a result of the April 1989 budget. The subsequent announcement of the purchase of three Arcturus aircraft similar to the Aurora, except for the lack of anti-submarine equipment, promises to provide some relief since these aircraft can be used for training and surveillance flights, including those in the Arctic where the submarine detection equipment is not required, thus freeing the Auroras for other duties. The decision to allocate some Canadian Forces Challenger jets to general surveillance tasks will also help to alleviate the burden placed on the Auroras.

During its investigations at CFB Comox on Vancouver Island, the Committee was briefed on Aurora operations in general and in particular those of 407 Squadron, the only Aurora squadron on the West Coast. With only four aircraft, 407 Squadron has a heavy load, being responsible for anti-submarine patrols in the Pacific and some of the Arctic surveillance flights, as well as search and rescue missions and some fisheries surveillance flights on the West Coast. The fact that training and major maintenance facilities are located at the other Aurora base in Canada, CFB Greenwood in Nova Scotia, complicates 407's task. The use of Auroras in the monitoring of foreign fishing activities off the Pacific coast and the tracking of oil spills highlights the versatility of the aircraft for general surveillance of all Canada's coastline. Military briefers, however, also emphasized the need to maintain the anti-submarine capability and expressed concern that the updating of the submarine detection equipment of the Auroras due sometime in the 1990s might be delayed. There was also concern about the workload faced by Aurora crews at a time of limited resources and pilot shortages. However, the skill and dedication of Aurora flight and maintenance crews are still of a high order as demonstrated by the victory in the fall of 1989 of an Aurora crew from 415 Squadron in the annual international anti-submarine warfare competition for the Fincastle Trophy.

The fact remains, however, that Canada's air surveillance capability is limited because of the large area which has to be patrolled and the small number of aircraft available to carry out this duty.



A Labrador helicopter of 442 Squadron and a marine crash boat practice rescue techniques

X In view of the growing need to improve the surveillance of Canada's coastline, the Committee, as it did in its interim report, recommends that the air surveillance capability of the Canadian Forces be increased.

c. Other Elements of Air Command

Other elements of Air Command besides Maritime Air Group contribute to Canada's ability to assert its sovereignty in its territorial waters. Indeed, the Canadian Forces play an important role in rescue operations off Canada's coasts.

The Minister of National Defence is designated as the lead minister for Search and Rescue. As such, he is responsible for coordinating the delivery of air and marine responses to incidents of distress in the Canadian area of responsibility. This coordination is accomplished by four Rescue Coordination Centres (RCC) jointly manned by DND and Canadian Coast Guard personnel. DND provides dedicated Search and Rescue aircraft and coordinates the activities of the Civil Air Search and Rescue Association. The Minister is assisted by an independent National Search and Rescue Program Secretariat and by the Interdepartmental Committee on Search and Rescue, which includes representatives of most government departments.

During its investigations at CFB Comox, the Committee was briefed on the operations of 442 Search and Rescue and Utility Transport Squadron of Air Transport Group which, like search and rescue squadrons on the East coast, is involved in a number of rescue missions off Canada's coasts. The Buffalo aircraft of 442 Squadron, like the Auroras, can drop a maritime Survival Kit Air Droppable (SKAD) which can allow survivors of an incident at sea to await rescue by vessels or one of 442's Labrador helicopters. One of the Squadron's paramedics gave a most impressive demonstration of the equipment needed to provide medical assistance to people in distress at accident scenes in remote areas on land and at sea. The skill and dedication of the Canadian Forces personnel involved in search and rescue is one of the most important assets in Canada's ability to respond to incidents near or in its territorial waters. Indeed, the best way for Canada to assert its sovereignty is to demonstrate its ability to monitor and respond to any kind of incident in its territorial waters. The replacement of the aging Buffalo aircraft and Labrador helicopters used by rescue squadrons, although not scheduled until the late 1990s, already deserves serious consideration.

XI Because of the contribution made by Canadian Forces search and rescue squadrons to Canada's ability to respond to incidents near or in its territorial waters, the Committee recommends that more attention be paid to the equipment requirements of these squadrons.

The presence of a detachment of 441 Tactical Fighter Squadron at CFB Comox also allowed some consideration of how other assets of Air Command can contribute to the protection of Canada's maritime sovereignty. The three CF-18s of 441 Squadron's detachment are used primarily for NORAD interceptions, but the Committee was briefed on some of the capabilities of the aircraft for the surveillance of surface shipping and for the support of operations of Maritime Air Group aircraft.

CF-18s are also being used in efforts to curb the smuggling of illegal drugs. The Department of National Defence recently announced a policy requiring all aircraft entering the NORAD Canadian Air Defence Identification Zone to file flight plans. All unidentified aircraft or aircraft which have not filed a flight plan will be directed by NORAD aircraft to land at a specified aerodrome port of entry to be cleared by Canada Customs and the RCMP.

C. Assistance Provided to Other Departments

DND provides support in the marine context on a regular basis to the Department of Fisheries and Oceans (DFO), the Department of the Environment (DOE), the Ministry of the Solicitor General (for the Royal Canadian Mounted Police) and Employment and Immigration under a number of Memoranda of Understanding.

DND annually provides 65 ship days on the East coast, 30 ship days on the West coast and 420 aircraft hours to DFO for fisheries patrols at no cost. Prior to the withdrawal of the Tracker aircraft from service in April 1990, DND provided 1,480 Tracker flying hours to DFO at no cost and up to 800 more hours charged at a standard incremental rate. DND provides 20 ship days and 750 aircraft hours to the Royal Canadian Mounted Police at no cost. DND also provides ongoing intelligence, surveillance and target tracking for drug interdiction. Costs for additional ship days or aircraft hours would be recovered from the departments.

All DND ships and aircraft carry out pollution surveillance on behalf of DOE while conducting other operations. In addition, there is close cooperation between DOE's Atmospheric Environment Service (AES) and the Canadian Forces Weather Service for meteorological services, including ice reconnaissance and forecasting. DND provides support for AES ice reconnaissance flights from Canadian Forces Bases and carries AES ice observers on Northern Patrols conducted by Aurora aircraft. Provisions exist for cost recovery for most of these services.

DND provides numerous identical services to other departments in the maritime context. Some of these are the result of specific areas of expertise within the Department.

For example, DND: assists the Department of Transport in the administration of Dangerous Goods Shipping Regulations as they relate to explosives on board ships; acquires machine guns and ammunition (and provides training in their use) for the Department of Fisheries and Oceans; and provides support to the Department of Energy, Mines and Resources in the investigation of diving accidents. Costs are usually recovered.

Other DND services make use of the characteristics of military personnel and equipment. DND can provide substantial logistics, surveillance and communications support to assist with major environmental catastrophes under assistance to civil authority policies. Support provided can include Hercules transport aircraft, helicopters, ships, field medical facilities, Aurora surveillance aircraft, satellite terminals, and radio and telex systems. The Department is required to charge a fee equivalent to the commercial rate for services provided during a public welfare emergency "in order to ensure that the Forces do not compete unfairly with the private sector."⁽²⁸⁾ DND is responsible for providing air transportation resources (Challenger and Hercules aircraft) and military support, such as naval vessels, other aircraft, armoured vehicles, communications and logistics support, to the RCMP Special Emergency Response Team on short notice. DND also provides the RCMP with intelligence, surveillance and surface interdiction resources for anti-drug operations. Again, provisions exist in Memoranda of Understanding to recover costs, though they may be reduced or waived if circumstances warrant.

Finally, in the event of a national security emergency, DND would assume greater responsibility for directing the activities of other departments in the marine context, particularly Canadian Coast Guard resources.

OTHER DEPARTMENTS

A. Department of Fisheries and Oceans

The Department of Fisheries and Oceans (DFO) has responsibility for all matters not assigned by law to any other government agency relating to: (a) seacoast and inland fisheries; (b) fishing and recreational harbours; (c) hydrography and marine sciences; and (d) policy and program coordination of the Government of Canada respecting oceans. The Department is responsible for the administration of 15 Acts and 42 sets of regulations designed to conserve and protect Canada's fisheries resources.⁽²⁹⁾

(28) Department of National Defence, Oral Presentation to the Public Review Panel on Oil Spills and Tanker Safety, p. 9.

(29) Department of Fisheries and Oceans, *Presentation to the House of Commons Standing Committee on National Defence and Veterans Affairs Regarding the Department of Fisheries and Oceans Involvement in Canadian Maritime Sovereignty*, 13 December 1989, p. 1.

To fulfill its mandate, DFO conducts scientific research (including hydrographic research), manages fish stocks (by, for example, establishing quotas and devising regulations, standards and programs), and enforces fisheries regulations. Enforcement is accomplished by licensing, inspection, observation and patrols. All vessels, foreign and domestic, fishing in Canadian waters must be properly licensed. All foreign vessels licensed to operate in Canadian waters (of which there are approximately 125) carry DFO contracted observers to monitor their activities. Approximately 24% of domestic vessels over 30 metres in length also carry observers. A joint international inspection scheme operates under the auspices of the Northwest Atlantic Fisheries Organization (NAFO) beyond Canada's 200-mile limit off the East coast. Within the scheme, foreign vessels voluntarily submit to routine inspections by other countries.

DFO's surveillance and enforcement program is implemented by fisheries officers and enforcement staff using the 84 fisheries patrol vessels managed and operated by the Department. The program also charters three private aircraft (two helicopters and one airplane) to conduct aerial surveillance. DFO is in the process of contracting additional private sector aircraft to conduct surveillance, in part because of the loss of the Tracker patrols. Seven DFO vessels are able to patrol to Canada's 200-mile limit. Five are based on the East coast, and are armed with .50-calibre machine guns; the two based on the West coast are unarmed. Between them, these seven vessels conducted 598 vessel days of patrols in 1989-90. DFO aircraft resources, including the Trackers, conducted 5,406 hours of surveillance in 1989-90, of which 3,002 hours was "sovereignty surveillance" beyond Canada's 12-mile limit.

DFO chairs the Interdepartmental Committee on Oceans. Its mandate involves the review, facilitation and coordination of governmental marine science, oceanic and industry development programs. It is composed of representatives from all government departments and agencies with ocean programs or requiring services from those programs. However, it has no executive power nor an independent secretariat.

On an incidental basis, vessels and aircraft are provided to the Department of Environment, the Canadian Coast Guard, Customs and Excise and the Canadian Wildlife Service on request. Pollution occurrences are reported to the Department of Environment and the Coast Guard, and DFO is considered a resource agency for marine spills. DFO and the RCMP have a mutual assistance Memorandum of Understanding covering the provision of vessels, aircraft, personnel and equipment on request. These activities are not cost recovered. DFO also provides regular support to the National Search and Rescue Program. Currently, 13 multi-tasked vessels and one helicopter are committed.

B. Department of Transport

The marine branch of the Department of Transport (DOT) is the Canadian Coast Guard (CCG). The Coast Guard's role is to maintain a safe and effective marine transportation system and to provide essential facilities and services in Canadian waters. Commissioner R.A. Quail of the Canadian Coast Guard stated:

Control in support of sovereignty translates, in our view, to an effective presence through coastal patrol and protection. Essential elements are: (1) a visible presence in coastal areas and in all major waterways, providing the essential safety net no prudent mariner wishes to ignore; (2) knowledge of the domestic and foreign activities taking place; (3) a recognized capability to respond effectively and appropriately to a range of challenges.⁽³⁰⁾

In order to accomplish this, Commissioner Quail explained:

...the Coast Guard maintains an active presence on all major commercial waterways and coastal areas, including the Arctic, in support of the following activities: aids to navigation such as radio aids, light stations, buoys and channel markers; icebreaking of harbours and shipping lanes; escort of commercial shipping and fishing fleets; dedicated marine search and rescue coordinated from National Defence Search and Rescue centres; vessel traffic management services from those that use radar screens to those that use radio reports from the ships.

We are involved in pollution control, and ... for cleanup where Coast Guard is the lead agency for ship-source spills and a support agency for others such as drill rigs...⁽³¹⁾

Approximately 49% of Coast Guard resources are expended on navigation systems, 23% on icebreaking and Arctic operations, 13% on search and rescue, 6% on regulatory activities (for example, inspections) and 7% on harbours and ports. The Coast Guard's fleet of 300 large and small vessels and 36 aircraft provides the largest federal government presence in Canadian waters.

While the Minister of National Defence is the lead minister for Search and Rescue, statutory responsibility for the provision of Search and Rescue services rests with the Minister of Transport. The Coast Guard jointly mans the four Search and Rescue Coordination Centres with National Defence, and mans two Marine Rescue Sub-Centres. The Coast Guard provides 42 dedicated search and rescue vessels and 4 hovercraft, supplemented in summer by inshore rescue boats. CCG also coordinates the activities of the Canadian Marine Rescue Auxiliary.

The Department of Transport, largely through the Coast Guard, provides a variety of services to other government departments on a regular basis. Some of these arrangements are formalized through Memoranda of Understanding, but others are arranged informally.

⁽³⁰⁾ Proceedings, 7:7.

⁽³¹⁾ *Ibid.*, 7:5.

The services include: the laying of weather and wave buoys; icebreaking for flood control on the upper St. Lawrence; the provision of marine platforms to transport RCMP officers during special incidents; the provision of platforms to DFO for fisheries enforcement; transportation support to DOE, for example to support isolated weather stations or to conduct research; icebreaking escort support for DND vessels; surveillance of ocean dumping for DOE; interdiction of illegal immigrants; and hydrographic and oceanographic surveys. In addition, while the Coast Guard is the lead agency only for ship source spills, it is an important resource agency for other maritime spills. The Coast Guard maintains 54 pollution response centres with approximately \$30 million worth of spill response equipment. Costs are recovered for most of these incidental activities.

In the event of an emergency, MoUs exist between CCG and DND providing for the transfer of operational control from CCG to DND of radio stations, vessels and aircraft and for the coordination of vessel traffic information.

A study has been conducted recently by the Coast Guard in cooperation with other departments and agencies to examine the possibility of an enhanced role for the Coast Guard in the areas of law enforcement, maritime security, defence support, science, monitoring and sovereignty. In testimony before the Committee it was estimated that this study would be completed and forwarded to ministers in 1990.

C. Department of Environment

Environment Canada's mandate in the marine context is principally a meteorological, regulation, inspection and monitoring role. While DOE has responsibilities under several Acts, those arising out of the *Government Organization Act* (which assigns responsibility for the provision of weather services to DOE), the new *Canadian Environmental Protection Act*, and DOE's responsibility for Section 33 of the *Fisheries Act* (which protects fish and fish habitat from water pollution) are its larger marine responsibilities. The Department operates research ships, both departmental and contracted, in inland waters, but relies principally on the Coast Guard for vessel support for research and inspection off the coasts. DOE provides meteorological services principally to DND and DOT in the marine context. The Department recently acquired a DASH-7 aircraft for ice surveillance, and contracts up to three other aircraft from the private sector to perform that function.

As lead agency for mystery spills, DOE prepares and exercises contingency plans. Regional Environmental Emergency Teams chaired by DOE coordinate data and information from federal agencies, provincial agencies, academics and industry to provide advice and direction to spill on-scene commanders. As lead agency for spill response technology, the Department researches and develops techniques and equipment for oil

spill control and recovery, mobile analytical equipment, pollution control and hazard assessment methods. The Department also retains a residual lead role to direct or control any federal spill response operation in which the environment is not being adequately protected.

On an incidental basis, DOE provides a variety of support to other departments. This can include: advice and information on regulatory interpretation and impacts; adequacy of environmental impact assessments; disposal of substances; remedial measures; emergency response and adequacy of cleanup; results of scientific studies; wildlife distribution and migration routes; and industrial and plant processes relating to pollution and its control. Very few costs are recovered in connection with these services, rather DOE requests reciprocal services from other departments as required.

D. Ministry of the Solicitor General

The Ministry of the Solicitor General is the lead agency for federal law enforcement. Within that mandate, the Ministry Secretariat develops law enforcement policy, including the coordination of drug law enforcement. The Secretariat also coordinates counter-terrorism policy and response to terrorist incidents, including incidents at sea, within the Ministry's lead agency responsibility for counter-terrorism.

The Royal Canadian Mounted Police (RCMP) has a mandate to enforce Canadian laws in areas where it has a policing contract with the province or territory. All coastal provinces and territories contract with the RCMP for police services. The RCMP is also responsible for enforcing federal statutes. Currently, the full extent of Canadian law, and therefore RCMP authority, applies only within the 12-mile territorial limit. Beyond that, Canadian jurisdiction only applies to natural resources within a 200-mile limit.

The RCMP has few vessels and no dedicated marine officers, and so relies heavily on the assistance of the Coast Guard, DFO and DND for water transport. Costs are recovered in most instances. The RCMP operates a Special Emergency Response Team to react to terrorist incidents, including incidents at sea. In the event of an emergency, the RCMP would be responsible for matters of internal security, including port and travel security.

The RCMP enforces or assists in the enforcement of numerous Canadian statutes which are administered by other departments. For example, assistance is provided to Revenue Canada, the lead agency for the control, deterrence and suppression of illegally imported drugs. In addition, the RCMP assists the Canadian Coast Guard in the investigation of ship collisions, and Transport Canada in the enforcement of small vessel regulations, the monitoring of the transportation of dangerous goods, and the development of water safety programs. The RCMP can provide search and rescue resources as needed, but is primarily responsible for the response to ground search and rescue incidents.

The RCMP also provides general monitoring and inspection services to, for example, the Canadian Transport Commission in marine regions where customs offices are not available. It also assists the Department of Fisheries and Oceans. DFO Fisheries Officers receive their firearms and boarding training from the RCMP. Costs associated with training of DFO officers by the RCMP or of RCMP officers to perform inspection, monitoring and enforcement functions are recovered.

E. Department of External Affairs

The Department of External Affairs operates principally in a consultative role in the marine context. DEA provides policy and legal advice on international aspects of maritime affairs to other departments and leads delegations to international negotiations on maritime issues. Enforcement actions by other departments against foreign nationals or vessels require DEA consultation and authorization. For example, an MoU between DFO, DND and DEA outlines the consultation processes between those departments in the event of military vessels being engaged in fisheries enforcement against foreign vessels. Since certain enforcement regimes in Canada's marine economic zones are flag-state enforcement, such as ocean dumping, External Affairs may be responsible for presenting cases to foreign flag-state authorities and requesting that action be taken.

F. Other Government Departments

Many other government departments and agencies have interests in the marine context. Some departments have responsibilities relative to Canada's borders, which obviously include maritime boundaries. Revenue Canada is responsible for preventing smuggling, particularly of illicit drugs, into Canada, while Employment and Immigration is responsible for preventing illegal immigration, and for administering the arrival of refugee claimants at Canada's borders.

Besides departments and agencies with obvious maritime administration responsibilities such as Ports Canada, the St. Lawrence Seaway Authority, and Public Works Canada, several other departments have interests in managing coastal and offshore resources development, including Energy, Mines and Resources, Indian Affairs and Northern Development, and the Canadian Oil and Gas Lands Administration (COGLA). For example, the Canadian Geological Survey, part of Energy, Mines and Resources, is engaged in mapping Canada's continental shelf. The activities of these departments can further involve departments such as Regional Industrial Expansion and Science and Technology. It is worth noting that, in general, COGLA is the lead agency for spills originating from offshore platforms such as oil rigs. However, in the Newfoundland offshore area, that responsibility rests with the Canada-Newfoundland Offshore

Petroleum Board. Still other departments become involved in the marine context through their responsibilities for regulations and standards such as Health and Welfare and Communications which require inspections to be conducted on ships (usually by the Coast Guard) in connection with their mandate.

As is the case with most services provided by one department for another, incremental costs resulting from those activities are recovered from the benefitting department.

Approaches to coordination are almost as varied as the services provided, but are essentially of six types: takeover; integrated command; divided responsibility with consultation; divided responsibility without consultation; incidental response; and informal arrangement.

1. Takeover

Takeover arrangements apply principally when the Department of National Defence extends its responsibilities following the invocation of the *Emergency Act*. Under several Memoranda of Understanding, in the event of an emergency, DND naval commanders would take over operational control of Coast Guard resources. Command and administration remain Coast Guard responsibilities. In the case of Coast Guard ships, the commanding officer retains the right to make the final decision if safety is involved.

2. Integrated Command

The National Search and Rescue Program is the only example of a fully integrated interdepartmental maritime command and coordination system. Four Rescue Coordination Centres (RCCs) are jointly manned by military and Coast Guard personnel. They control dedicated search and rescue resources, including Canadian Forces aircraft and Coast Guard ships, and are responsible for coordinating all air and marine search and rescue operations in Canada and surrounding waters using dedicated and non-dedicated resources. The RCCs are under the control of search and rescue regional Commanders (RCCs) who report administratively to the Deputy Chief of the Defence Staff. Administratively, DND and DPT Air-based search and rescue resources report through their operational chains of command. Joint Canada-United States and Canada-Denmark rescue centres also report to the appropriate RCCs.

3. Divided Responsibility with Consultation

There are many interdepartmental Memoranda of Understanding which delineate departmental responsibilities for providing support and services on a regular basis. As well as lists of departmental responsibilities in the event of an emergency, MOUs establish the

CHAPTER III

COORDINATION AND EFFECTIVENESS

A. Interdepartmental Coordination

The numerous instances of interdepartmental cooperation require means of coordination. Approaches to coordination are almost as varied as the services provided, but are essentially of six types: takeover; integrated command; divided responsibility with consultation; divided responsibility without consultation; incidental response; and informal arrangement.

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3. Divided Responsibility with Consultation

There are many interdepartmental Memoranda of Understanding which delineate departmental responsibilities in providing cooperative services on a regular basis. As well as lists of departmental responsibilities in the area concerned, some MoUs establish the

standards which cooperative arrangements must meet. The extent of detail and coordination varies widely. Towards one extreme, for example, according to the MoU between DND and DOE concerning meteorological services, DND and DOE jointly select a director for the Canadian Forces Weather Service, cooperate in the development of annual plans and establish a number of channels of communication. In the case of the DFO and DOE Atlantic Regional Agreement for the administration of Section 33 of the *Fisheries Act*, the departments establish a Section 33 Committee. A joint annual planning process is set up and regional contacts are identified. The establishing of committees at various levels to oversee cooperative activities is fairly common. Other agreements merely identify contact people and indicate that cooperative arrangements should be agreed between them as necessary. In most cases, there are provisions for annual meetings to establish standards and review the operations of the Memoranda of Understanding. In addition, there are frequently provisions for resolving disputes arising from the operation of the MoUs, and for amending the agreements.

4. Divided Responsibility without Consultation

At the other extreme, however, are MoUs, such as those between the Coast Guard and several agencies (including the Department of Indian Affairs and Northern Development, the St. Lawrence Seaway Authority, and COGLA) respecting spill response responsibilities, which simply indicate departmental obligations, without establishing any mechanisms for interdepartmental coordination.

5. Incidental Response

Arrangements for the provision of assistance on an incidental basis between departments follow a consistent pattern, but differ in the extent of detail and the level of responsibility. Requests for assistance can be made at the director general level (as in the case of DND assistance to Energy, Mines and Resources in investigating diving accidents), the regional level (as in the case of DFO assistance to the RCMP), or at the ministerial level (as in the cases of DND assistance to the RCMP or DFO for enforcement). The MoU governing Coast Guard assistance to the RCMP identifies different levels of contact depending on the size of the operation. In most cases, the request must be made in writing, though in some circumstances, requests may be made verbally if time is short. The requested department then considers what, if any, resources it can provide and a plan is developed in cooperation with the requesting department. Other departments may be brought into the consultation process, such as the Department of External Affairs if an operation involves foreign nationals. The requested department retains operational control of its resources at all times during the operation, and reserves the right to withdraw them at any time in the interests of safety, or to perform tasks that it considers a higher

priority. The commander of a ship (or aircraft) providing assistance retains full command of his vessel and consults with the officer-in-charge from the other department. The several MoUs concerning incidental assistance define the chains of command for operations with varying degrees of precision.

6. Informal Arrangement

The final form of interdepartmental coordination is informal arrangement. Examples of this include the informal understanding by which the Coast Guard provides DFO with helicopter flying hours for scientific purposes, and the informal procedures between DFO and DOE for emergencies arising out of fish habitat management.

B. Effectiveness

The Committee did not intend to attempt a comprehensive examination and audit of government activity in the maritime context. Rather, it focused on those issues of effectiveness brought particularly to its attention, and concentrated predominantly on issues of interdepartmental coordination.

It was noted above that there are several different means by which government departments coordinate their operations with each other. In the opinion of some witnesses, current procedures are not effective. Departments appear to cooperate and coordinate only because they have to, and set up different arrangements to govern each type of interaction. The end result appears to be a lack of coordination. Captain Leslie Hutchins, Past President of the Ottawa Branch of the Naval Officers Associations of Canada described the situation with regard to the various federal agencies:

Some of these have big fleets, some have little fleets, some have no fleets at all. They all operate as independent entities. If one examines arrangements made between these various agencies in the matter of responsibilities, what stood out ... was that there was always some lack of coordination. It appeared to us that on occasion arbitrary decisions were made without regard to offices of collateral interest.

...departments have overlapping responsibilities. There is a degree of cooperation, but not total cooperation. In spite of these arrangements, the present managerial and administrative approach is insufficient to ensure totally efficient actions and conclusions.⁽³²⁾

The problem may become particularly serious during marine emergencies, broadly defined. It is especially noteworthy, in that context, that an integrated approach has been adopted to respond to the most acute of marine emergencies, those requiring search and rescue.

(32) Proceedings, 10:7.

1. Marine Spills

The environmental consequences of oil and other chemical spills within Canadian maritime jurisdictions make this a serious issue. While the expected frequency of large or catastrophic oil spills from tankers is not large (one spill every 53 years over 150,000 barrels and one spill over 1,000 barrels every one to two years), 118 spills under 1,000 barrels can be expected in Canadian waters *every year from tankers alone*, not including spills on land or from offshore platforms.⁽³³⁾ It is essential that responses to spills be rapid and effective, wherever they occur. The issue of oil and hazardous material spills has been the subject of intense study recently, notably by the Federal Public Review Panel on Tanker Safety and Marine Spills Response Capability. The Committee considers this attention to be warranted and overdue.

The Committee recognizes the usefulness of having a single agency control and coordinate spill response operations. In that context, the division between "lead agency" and "resource agency" seems sensible. The lead agency is responsible: for taking preparatory measures, such as contingency planning, training, liaison with resource agencies; and for commanding (appointing the on-scene commander), organizing and funding the response to an emergency. Resource agencies control and make available expertise, authority, responsibility, manpower and resources which may be required by the on-scene commander. However, there is no single governmental lead agency for spill responses, or even for marine spill response. Lead agency responsibility depends on the location and source of the spill. Still other agencies are responsible for spills which occur on land, to the extent that there are no fewer than 14 different types of spill in the Northwest Territories alone for which a lead agency has to be designated. Further complications exist in situations where a spill results from shore-to-ship transfers, where the tide ebbs and flows into harbours, and where the spill crosses national boundaries. Finally, in spite of the fact that the Coast Guard operates federal government spill response equipment, the Department of Environment is the lead agency for spill response technology development. The Committee believes that such a multiplicity of responsibilities may lead to confusion and delay at the moment of spill discovery, when rapid action is critical.

2. Drug Interdiction

If marine spills represent an area in which too many agencies overlap to ensure an efficient response, drug interdiction may represent an area which falls into the gaps

⁽³³⁾ S.L. Ross Environmental Research, *Expected Frequency of Oil Spills from Tankers in or near Canadian Waters*, Submission to the Federal Marine Spills Review, 30 May 1989, Executive Summary.

between departmental jurisdictions. The responsibility for interdicting drugs entering Canada illegally clearly lies with the Royal Canadian Mounted Police, however, with the minor exception of the Coastal Watch program (a coastal version of Neighbourhood Watch), the RCMP has none of the resources for detecting, tracking and intercepting aircraft and ships transporting drugs into Canada. Those departments with such resources, principally the Department of Transport (through its Vessel Traffic Centres) and the Department of National Defence (through its ships, aircraft and radars) have systems optimized for other purposes. The end result was described by the Department of National Defence with reference to aerial coverage:

The NORAD radar system was established for long-range detection of the high-speed, high-flying bomber threat to North America. However, current equipment is not calibrated to acquire the low-speed, low-altitude patterns that are flown by drug smuggling aircraft. Department of Transport (DOT) radars, which do have a certain capability for low-altitude and low-speed aircraft, are set up to control local area air traffic but are limited in range. The end result is national radar coverage with holes (deadspots) of sufficient size to allow the knowledgeable (drug) smuggler to successfully navigate and land at isolated airstrips *undetected*.

Canada's fighter interceptors are based at specific locations to address the hostile bomber threat to North America. As such, these assets are oriented North, Northeast and Northwest. Therefore, rapid response against drug smugglers that take routes through the maritime provinces and across the width of the Canada/U.S. border is limited.⁽³⁴⁾

The vast majority of illegal drugs enter Canada by air and sea. Bulky drugs, such as marijuana and hashish in particular, usually enter by ship. Furthermore, the RCMP believes that Canada is becoming increasingly popular as a trans-shipment point for illicit drugs destined for the United States. The East and West coastlines, and the New Brunswick land border are particularly attractive because of their sparse populations and abundance of isolated landing strips. The RCMP further noted in a submission to the Committee that:

The [South American drug] cartels also suspect that Canadians do not possess adequate interdiction resources to combat this threat nor sufficient enforcement personnel in these isolated areas to effectively respond to their activities.⁽³⁵⁾

The RCMP estimates that it only successfully interdicts 20-25% of the illegal drugs entering Canada.⁽³⁶⁾ The Committee believes that this is an unacceptably low proportion, even though it recognizes the limitations on interdiction efforts. Referring to the American drug interdiction effort, Professor Jean-Paul Brodeur, Director of the Centre for Comparative Criminology at the University of Montreal, argued that, according to American evidence:

(34) Department of National Defence, Departmental Submission, Response T2.

(35) Ministry of the Solicitor General, Departmental Submission, Response T4.

(36) Proceedings, 9:10.

The overall conclusion is that if you spend as much money as you want [on interdiction], you will make a difference of perhaps 5% in the amount of drug consumption in the United States.⁽³⁷⁾

However:

If we were ready to abolish a great part of our civil freedoms and democratic rights in Canada, one could envisage that the efficiency of the police would be heightened...

The question is not really: are we bound to fail in stopping drug smuggling? The question would be: what are we prepared to trade off in order to have a better performance in terms of money, in terms of civil rights, and so forth...⁽³⁸⁾

The government currently spends 70% of drug control funds on education and 30% on enforcement. The Committee is convinced that this is the right approach to limiting and eventually eradicating the scourge of illegal drug use from Canada. Commissioner Norman Inkster of the RCMP noted:

When the discussions were held relative to the national drug strategy, the question was asked whether or not we needed more investigators, and at that time in general terms we took the position that no, we did not need more drug investigators; what we really need is help. That help has to come...from parents, health professionals, educators and so on. It must be recognized as a social problem, not a police problem. We can only be part of the solution.⁽³⁹⁾

The most effective interdiction of drugs results from good intelligence. This can come from many sources: domestic police work, foreign and international police and drug interdiction efforts, intelligence from other governmental agencies. Nevertheless, there still remains a need to detect, track and intercept vessels and aircraft suspected of carrying drugs in Canadian jurisdictions. The compartmentalization of maritime surveillance resources and law enforcement responsibilities can only hinder attempts to effect such interdiction.

3. Fisheries Enforcement

The Committee is concerned with the ability of the Department of Fisheries and Oceans to enforce Canadian fishing laws and regulations. A particular focus for this concern was provided by the *Concordia* incident which is described below. In that case, an American vessel was caught red-handed fishing illegally in Canadian waters, but could not be apprehended. Here, the Committee wishes to make some more general points.

(37) *Ibid.*, 14:6.

(38) *Ibid.*, 14:29-30.

(39) *Ibid.*, 9:11.

According to the 1988 Auditor General's report which examined fisheries enforcement, the best available estimate of the cost of illegal fishing activity was \$100 million in 1982 in the Atlantic Zone alone.⁽⁴⁰⁾ This is the cost of illegal fishing within Canada's 200-mile limit. The cost of foreign overfishing of straddling stocks outside the 200-mile limit can only be guessed at because of its negative impact on the long-term viability of Canadian stocks. The Auditor General's report went on to say, "Many of the important support mechanisms for a Fishery Officer in performing this [enforcement] role are weak. Furthermore, the information to plan, control and evaluate the efficiency and success of operations is often inadequate or inconsistent."⁽⁴¹⁾

The Department has undertaken a number of initiatives to enhance offshore fisheries enforcement in the past several years, but the Committee believes them to be incomplete. In the first place, DFO charters private aircraft to perform fisheries surveillance, and as a result of the loss of Tracker surveillance, has begun to charter more. The Committee has serious reservations with regard to the privatization of aerial surveillance, and these are discussed below. However, the Committee also believes that current criteria for offshore patrol activity (the identification of 3% of offshore fishing vessels on the East Coast and 2% on the West Coast) are too limited to ensure adequate enforcement. The Committee is also concerned about the limited night surveillance and illumination capability of DFO chartered aircraft.

Second, DFO has armed offshore patrol vessels on the East Coast. In view of the reluctance of the Department to use force to stop vessels fishing illegally, a reluctance which was demonstrated during the *Concordia* incident, it is not clear to the Committee that arming fisheries vessels serves any purpose. In addition, it is not at all evident to the Committee that circumstances are sufficiently different on the East and West coasts to merit arming vessels on the former, but not the latter.

Third, fisheries protection legislation has been amended to greatly increase fines for illegal foreign fishing. As the *Concordia* incident shows, however, the value of this is limited if vessels can escape to jurisdictions with considerably lower penalties.

Finally, as was noted previously, all foreign fishing vessels in Canadian waters have DFO observers on board. Again, the value of this is limited since fewer than one-quarter of Canadian boats, which are responsible for the majority of illegal fishing in Canadian waters, carry observers. Furthermore, foreign vessels fishing outside Canada's 200-mile limit on the East coast are only subject to voluntary inspection under NAFO auspices. The

⁽⁴⁰⁾ Report of the Auditor General of Canada, 1988, para. 13.61.

⁽⁴¹⁾ *Ibid.*, para. 13.63.

unwillingness of vessels fishing in those waters to accept NAFO fish quota restrictions must call into question the usefulness of a voluntary inspection scheme.

4. Vessel Fleet Utilization

The Committee believes that there are several indicators that government vessel fleet utilization is not as efficient as it could be. In the first place, the Auditor General questioned some DFO fleet practices in his 1988 report, and then reported in 1989 that the Coast Guard appeared not to use the most efficient manning, maintenance and deployment practices for its fleet. Second, in testimony before the Committee, François Pouliot noted that DFO vessels have a higher rate of operation than DOT vessels, and it is not self-evident to the Committee why this is the case. Third, in the opinion of Paul Godbout, President of the Ottawa Branch of the Naval Officers Associations of Canada:

One only has to look at dockyard facing dockyard in Halifax. There are vessels of various shades of grey passing each other in the night, not knowing what one is doing and being fully capable of doing two or three of those jobs. There is no doubt that there are possible savings in that area.⁽⁴²⁾

5. Aircraft Fleet Utilization

a. Fleet Utilization

Government surveillance aircraft are excessively specialized, and seem likely to become more so. While some aircraft, such as DND Auroras and DFO helicopters, contributed incidentally to pollution surveillance or search and rescue, the Tracker aircraft recently withdrawn from service were the only truly multi-role aircraft in the Canadian maritime inventory. As Martin Shadwick told the Committee, "It was the ability of the Tracker or a successor to swing between the various non-military, quasi-military, and military roles that [we] will lose in the future. I think this is a serious concern."⁽⁴³⁾ Increasing specialization can also have negative effects. For example, the Department of Environment has recently acquired an aircraft for ice reconnaissance which can make almost no contribution to pollution surveillance which will be diminished by the loss of the Tracker. The move towards increased privatization is only likely to increase specialization since departments are unlikely to include capabilities to benefit other departments if no one is paying them to do so.

b. Privatization

One approach adopted by government departments to provide aerial surveillance services is to contract with the private sector. This issue has been highlighted in the

(42) Proceedings, 10:10.

(43) *Ibid.*, 18:9.

maritime context by the decision of DND to withdraw the Tracker medium-range patrol aircraft from service. As has been noted, this aircraft performed a substantial amount of surveillance for other departments, particularly DFO and DOE. Both departments intend to compensate for the loss of these aircraft through arrangements with the private sector. DFO has allocated \$28 million over five years for additional private sector aerial surveillance beyond the three aircraft it currently charters. DOE has developed spill scanning sensors which can be mounted on chartered aircraft. The Coast Guard has also been studying the possibility of contracting out its helicopter services.⁽⁴⁴⁾ At the same time, some agencies are moving in the other direction. For example, as was noted above, Environment Canada's Atmospheric Environment Service recently bought an aircraft for ice reconnaissance purposes which were previously contracted to the private sector or the Coast Guard.

Privatization has been subjected to a considerable amount of criticism. Martin Shadwick noted before the Committee:

I think the shift from the public to the private sector ... will on balance result in a less flexible, effective and cost-effective coastal patrol regime ... those aircraft and that operation are not equipped, staffed, trained, or available to support other government departments or to undertake military missions.⁽⁴⁵⁾

Other critics of privatization have questioned whether the private sector has standards of operating and maintenance discipline which are as high as those of the government, and particularly the military. Concerns have also been expressed in the past about departmental expertise in evaluating private sector bids to provide services.⁽⁴⁶⁾

The Committee is concerned that the government is accepting the principle of privatization with a view toward cutting costs without a full appreciation of other benefits. Therefore:

XII The Committee recommends that the government re-evaluate privatization as an option for non-DND aircraft and vessel fleets, taking into account considerations of government responsibilities, standards and competitive practices, as well as cost.

(44) "Coast Guard May Take Flier on Privatized Helicopters," *Ottawa Citizen*, 2 September 1989.

(45) Proceedings, 18:9.

(46) Report of the Auditor General, para. 13.68.

6. Incidental Support

The Committee is particularly concerned about the arrangements for interdepartmental coordination in incidental circumstances. Memoranda of Understanding covering cooperation between departments are not standardized. Inevitably, as will be demonstrated below, the involvement of multiple departmental lines of command and responsibility complicates and slows decision-making. Departments requiring support have little way of knowing what is available before a request is made, and supporting departments retain considerable discretion over what is supplied, and are usually permitted to withdraw support at will.

Further delays are likely if personnel, vessels or aircraft from one department accidentally encounter incidents within other departments' mandates. The responsible department must be informed through the discovering department's chain of command before any action can be taken. Once the responsible department has been informed, the absence of its personnel or resources on the scene may inhibit action being taken, particularly if enforcement action is required and no duly authorized officers are at the scene.

Third, some departments are quite dependent on incidental support provided by other departments. Therefore, unilateral decisions by departments can have profound effects on others who are not involved in the internal decision-making process. A recent glaring example of this was the decision by National Defence to cancel Tracker aircraft operations. Although the decision was a budgetary one, no other departments were consulted in spite of the multiple uses of the aircraft by those other departments. The impact of this on DFO, the department which made most use of the aircraft, could have been quite serious if the department had not already planned to investigate other surveillance options. DOE, which relies entirely on incidental surveillance by other departments and the general public, was seriously affected by the decision. The Deputy Minister of Environment of Prince Edward Island noted that the decline in military surveillance "will mitigate directly against the effectiveness of any efforts at monitoring and early response."⁽⁴⁷⁾ Denis Davies, Director General of Inland Waters for the Department of the Environment pointed out that Tracker information "plays a major role in DOE response to about half a dozen spill events off the Atlantic Coast of Canada each year."⁽⁴⁸⁾

(47) "Loss of Tracker Fleet Threatens Environment," *Summerside Journal-Pioneer*, 10 November 1989.

(48) Department of Environment, Letter expanding departmental testimony.

The end result of interdepartmental coordination was described by Rear Admiral Crickard in a submission to the Committee:

In daily operations at regional and local levels, various federal agencies work in a pragmatic and piecemeal way to carry out the regulation, monitoring and enforcement of Canada's offshore activities. However, this is done in the absence of a comprehensive oceans policy, an agreed maritime strategy and an integrated concept of operations. Such coordinated policies and joint operations that do exist are sectoral... Contingency planning for a wide range of maritime emergency situations crossing sectoral or departmental lines is neither comprehensive, integrated or practised.⁽⁴⁹⁾

Some of the problems that can result from this approach were amply demonstrated during the Committee's deliberations by an interdepartmental fisheries enforcement incident which provided the Committee with an opportunity to examine, in detail, some aspects of interdepartmental coordination in the protection of Canada's maritime sovereignty. This incident is described below.

7. Incidental Coordination: The Concordia Incident

a. The Incident

At 9:00 a.m., Atlantic Standard Time, on 11 December 1989, a Canadian Forces Tracker aircraft spotted the United States fishing vessel *Concordia* fishing illegally in the Exclusive Economic Zone on the Canadian side of the Georges Bank maritime boundary off Nova Scotia. At the time, crews of Fisheries and Oceans vessels were on strike, and DND vessels were carrying out fisheries patrols. The Tracker photographed the American vessel in the act of fishing, and attempted to contact it. The *Concordia* did not respond and headed for American waters. The Tracker established hot pursuit and directed HMCS *Saguenay*, a Canadian Forces destroyer on fisheries patrol, to intercept the fishing vessel. HMCS *Saguenay* took up the pursuit shortly before 11:00 a.m. and, while holding a steady course and attempting to contact the *Concordia*, the *Saguenay* was rammed by the American boat. After slowing to inspect damage, the *Concordia* picked up speed and continued towards United States territorial waters.

At 1:00 p.m., an interdepartmental consultation process began in Ottawa with the Minister of Fisheries and Oceans being informed. After the Department of External Affairs was informed, the Minister of Fisheries and Oceans requested from the Minister of National Defence, at 3:00 p.m., that steps be taken to apprehend the *Concordia*. At 5:00 p.m., DND indicated that it was prepared to act, and a conference call was set up between DFO, DND, DEA and the Privy Council Office (PCO) at Assistant Deputy Minister level

(49) Crickard, "Canada's Security Interests", p. 55.

for 5:30 p.m. Officials from the Privy Council Office were unavailable, but the other departments agreed that warning shots could be fired, followed, if possible, by other reasonable measures, but with the constraint that nothing be done to hazard life or limb on either vessel. However, DFO insisted on PCO approval before action was taken, and that approval was not obtained until 6:25 p.m.

Approval to fire warning shots was transmitted to HMCS *Saguenay* and small arms shots were fired across the *Concordia's* bows at 6:45 p.m. This had no effect, and so the main deck cannon of HMCS *Saguenay* fired across the *Concordia's* bows at 7:48 p.m. The *Concordia* turned off her running lights and took evasive action, but continued towards United States territorial waters which were entered at 9:51 p.m. HMCS *Saguenay* discontinued pursuit, but continued to track the *Concordia* on radar until the United States Coast Guard assumed pursuit at 11:00 p.m.

The *Concordia's* skipper and owner were subsequently fined \$10,000 each under United States civil law, but the U.S. fisheries attorney offered to settle for \$9,000 each, less than the value of the catch, which was not seized. The skipper and owner intend to appeal.

The Committee is naturally concerned that Canadian authorities were unable to apprehend individuals engaging in illegal actions in Canadian waters, and believes that the efficiency of interdepartmental coordination is a critical factor.

b. Improving Enforcement

Mr. Serge April, Director General of the Legal Affairs Bureau at the Department of External Affairs, noted, "When an incident occurs on the high seas, if the skipper is unwilling to cooperate ... there is almost no possibility of bringing the boat to a stop without risking human lives."⁽⁵⁰⁾ Whether lives should be risked in an attempt to enforce Canadian laws, particularly for violations which do not threaten lives, or which have international implications, is a matter of considerable gravity. In the Committee's view, there are two avenues to pursue in order to minimize the need to confront this issue.

The first avenue is to reduce, where possible, the incentives for suspect boats to flee. The Committee has recognized throughout this report that Canada cannot always achieve all its sovereignty goals alone. The perpetrators of illegal acts may be able to escape Canadian jurisdictions. In the case of fishing violations, there are no extradition provisions. Therefore, if foreign vessels escape to their own waters, they will be prosecuted, if at all, under their national laws. In the case of American vessels, the maximum fine that can

⁽⁵⁰⁾ Proceedings, 20:22.

currently be levied under U.S. law against them for fishing illegally in foreign waters is \$10,000. However, agreement has been reached to raise this to \$100,000, to come into effect in 1991. Under Canadian law, they can be fined up to \$750,000. This disparity in penalties represents a significant incentive for American fishermen to escape to American waters if they are caught in Canadian waters. The contrast with other illegal acts is noteworthy. Lieutenant-General David Huddleston, Deputy Chief of the Defence Staff, pointed out that, if the *Concordia* had been a drug boat attempting to flee to the United States:

I am sure he would have been received not with open arms but with the same sort of welcoming party he would have received in Canada.

The nature of the offence and the degree of collaboration between Canada and the United States in opposing the illegal importation of drugs puts a somewhat different colour on the situation.⁽⁵¹⁾

Canada must, therefore, through the Department of External Affairs, persuade other countries and the international community at large to enact laws of sufficient severity that foreign nationals do not have incentives to escape to their own jurisdictions.

The second avenue is to seek methods of stopping uncooperative boats without risking human lives, either by boarding them or stopping them remotely. The Committee was told that research is ongoing within DND on these problems, and particularly on the problem of boarding uncooperative vessels in conjunction with the RCMP. Therefore:

XIII The Committee recommends that research be conducted as a high priority into methods of stopping uncooperative boats on the high seas without endangering human life. Such research should be coordinated by DND, but involve input and resources from all other departments with related enforcement mandates in Canadian waters.

c. Interdepartmental Coordination

Although the fact that DFO vessels were on strike made this situation atypical, the Committee is concerned with the operation of the interdepartmental chain of command during the incident, which fits within the incidental response type of coordination described earlier. The structure of command and coordination in instances of DND enforcement support to DFO against foreign vessels is laid out in a fairly detailed Memorandum of Understanding. In general, the procedures followed during the incident were in accordance with the MoU. The Committee's concern is with the time taken to accomplish those procedures. The Committee accepts that decisions made during instances of enforcement

(51) *Ibid.*, 20:28.

which involve the possible use of force should not be made unduly rapidly. Nevertheless, the Committee notes that three hours elapsed after the ramming of HMCS *Saguenay* by the *Concordia* before External Affairs was contacted, another hour passed before the Ministers of Fisheries and Oceans and National Defence were consulted, two more hours passed before DND indicated it was prepared to use force, and another hour and 25 minutes elapsed, largely because of the unavailability of a PCO official, before a decision to fire warning shots could be transmitted to HMCS *Saguenay*. Almost 7 1/2 hours passed between the ramming of the *Saguenay* and the decision to fire warning shots. This seems an inordinate amount of time to make a decision that, according to DFO boarding procedures, could have been accomplished at Deputy Minister level if the enforcement vessel had been from DFO.

The Committee recognizes that, given the decision not to risk lives and the lack of options for stopping the American vessel, the time taken may not have made a difference in this case. However, other circumstances may well be time-sensitive and 7 1/2 hours may not always be available. In addition, not all interdepartmental coordination procedures are as well-established as the one relevant to the *Concordia* incident, and so delays can only be expected to increase. Also, the delay induced by the absence of representatives of the Privy Council Office for half an hour, even though that Office has only a consultative role, not a decision-making one, seems inexcusable. The Committee will have more to say on governmental organization for interdepartmental coordination; however, witnesses before the Committee suggested that the time taken during this incident may have been partly a result of the rarity of such incidents. Therefore:

- XIV The Committee recommends that the government institute a program of regularly exercising interdepartmental coordination procedures, particularly for emergency situations, with a view to identifying problems and reducing necessary consultation time. Such exercises should include all responsible individuals and their alternates.**

CHAPTER IV

CONCLUSION: THE CANADIAN FORCES AND THE FUTURE OF GOVERNMENT MARITIME ACTIVITY

A. AN OCEANS POLICY FOR CANADA

Throughout this report, the Committee has attempted to describe the current state of Canada's capability to ensure national sovereignty and to look to future needs.

The preoccupation of the Committee has been with how Canada's maritime sovereignty can be enhanced to meet current national and global challenges and those that are now appearing on the horizon. With those concerns in mind, a number of witnesses stressed the importance of developing a new policy framework that includes a comprehensive oceans strategy for Canada, as well as a wider, up-to-date security strategy.

In his presentation to the Committee, Rear-Admiral Crickard (ret.) stated that the Oceans Policy for Canada articulated in 1987 by the Minister of Fisheries and Oceans adopted as a national policy "a strategy to seize development opportunities on Canada's ocean frontier," but neglected to mention how the activities of the Department of National Defence should be coordinated with other oceans-related programs.⁽⁵²⁾

The goals and action plan of Oceans Policy for Canada are a welcome first step in the formulation of an integrated and comprehensive oceans policy. However, the role of Canada's naval and maritime air forces as the ultimate guarantors of that sovereignty, and their many activities in support, ranging from fisheries surveillance to northern operations and search and rescue, received scant attention.⁽⁵³⁾

Throughout their testimony, representatives of the Naval Officers Associations of Canada also addressed the necessity for an integrated oceans policy involving the Armed Forces.

Committee members share the view that a clearly articulated and comprehensive policy, including assessment of the future military, economic and environmental threats to Canada in the maritime domain is essential. The Committee hopes that its recommendations on maritime issues provides some ideas and impetus for a wider review, as well as timely action in the specific areas underlined in its report.

(52) Proceedings, 13:7.

(53) *Ibid.*, 13:8.

XV The Committee recommends that the government undertake to redraft an oceans policy for Canada that takes into account the importance of Canada's Armed Forces in guaranteeing national sovereignty and how the Armed Forces may be of greater use in addressing newly emerging security issues.

B. ENHANCING GOVERNMENTAL EFFECTIVENESS

1. A New Chain of Command and Control

A larger solution suggested before the Committee to the problems of interdepartmental coordination is that a single organization could be made responsible for command and control of government maritime operations. One specific suggestion was made with regard to marine emergencies. Rear-Admiral Crickard stated:

It is my belief that there should be a common operations centre on [all] coasts, run by the Department of National Defence, in which the RCMP, the Department of Fisheries and Oceans, the Canadian Coast Guard, and all the other marine agencies that have fleets could sit and work together during an emergency like the *Concordia*.⁽⁵⁴⁾

The Committee believes that such an arrangement has considerable merit. The centres would be informed of the movements and plans of departmental resources and would be able to communicate with them. Departmental resources encountering emergency situations such as uncooperative fishing vessels or oil spills would report them to the centres which could immediately determine the availability of resources to assist.⁽⁵⁵⁾ The emergency centres could then contact departments and ministers to effect top-level consultation and obtain necessary authorizations. Similarly, departments requiring platform support or other kinds of assistance could contact the emergency centres and rapidly determine what resources are available. The centres would have to maintain communication with the Rescue Coordination Centres and with vessel and air traffic management centres. The centres would be able to establish government-wide inventories and priorities for resources and thereby ensure that individual departmental priorities would not interfere with larger objectives.

(54) *Ibid.*, 13:28.

(55) A spill response network already exists whereby marine pollution incidents can be reported to 24-hour reporting offices at Coast Guard Vessel Traffic Management Centres. Those offices' functions would be transferred to the new emergency centres.

2. Alternative Structures for Coordination

While emergency centres might answer the short-term need for greater efficiency of interdepartmental coordination in some circumstances, the Committee believes that a broader realignment may eventually be necessary. In its hearings, the Committee saw evidence of inefficiencies and problems with coordination.

Several alternative structures for the organization of government activities in Canada's maritime jurisdictions were discussed before the Committee. At one end of the spectrum was the concept of a single "super-department" of oceans which would develop and implement a single integrated maritime policy while controlling all governmental maritime resources. Witnesses before the Committee did not favour this approach. Apart from the bureaucratic monster that might be created, the earlier discussion on the nature and extent of departmental activities in the maritime context suggests that it would be difficult to know where the line should be drawn between such a department and the rest of government activity. Such an approach could still result in duplication of government expertise. For example, would the department be responsible for inland waters and fisheries as well as offshore, or would another department of inland fisheries be needed?

Paul Godbout suggested that all governmental fleets should be put under a single command. His preferred command would be the Navy, since it already has the most highly developed command and control system.⁽⁵⁶⁾ This would eliminate the need for separate infrastructure and separate command and control structures. The personnel could all be integrated because:

The outstanding feature of all these people is that they are sea-going. You can make a drug buster, or a fisheries officer, or a naval gunner, and that is technology. But the ability to live at sea takes time to develop and they all have that in common. I think all of them could learn the other jobs to some degree.⁽⁵⁷⁾

Government marine policy would be made the responsibility of a Minister of Oceans, under whom would be a coordinating committee including representatives of all departments with marine interests.

Ray Creary, Vice-President of Veterans Against Nuclear Arms, identified two government functions in the marine context: a regulatory and law enforcement function and a service function. According to his plan, the first function would be carried out by the Canadian Forces and the second function would be carried out by the Coast Guard. The present marine functions of other government departments would be incorporated into those organizations as applicable. Mr. Creary identified the elements of the two functions:

⁽⁵⁶⁾ Proceedings, 10:14.

⁽⁵⁷⁾ *Ibid.*, 10:12.

The regulatory and law enforcement function would comprise: patrol over and in Canadian waters out to the 200-mile limit of the exclusive economic zone and over the Continental Shelf, where it protrudes, for surveillance, monitoring and control, where applicable, in accordance with the Law of the Sea; patrol over and in the areas assigned to Canada by competent authority for exercise of article 51 of the UN Charter, dealing with a nation's right to self-defence; enforcement of fisheries and mineral extraction regulations in the exclusive economic zone in accordance with the Law of the Sea, international and national agreements and regulations; suppression of terrorism, piracy, drug traffic, illegal immigration and smuggling; pollution control; and search, rescue and safety at sea.

The service function would comprise: provision of physical aids to navigation, such as buoys, lights, foghorns, etc.; provision of radio aids to navigation; meteorological and ice forecasting; icebreaking; other Coast Guard functions of assistance to navigation; marine science and hydrography; search, rescue and safety at sea.⁽⁵⁸⁾

Other suggestions involved the transfer of particular functions between departments. Martin Shadwick suggested that the larger DFO patrol vessels could be transferred to DND, which would then perform all offshore enforcement patrol.⁽⁵⁹⁾ Some of the vessels are already able to be armed, albeit with machine guns, and could probably be modified for minesweeping. Cynthia Lamson, Associate Director of the Oceans Institute of Canada, suggested that military marine science activity should be more closely integrated with civilian marine science.⁽⁶⁰⁾ This approach could even go so far as to integrate military and non-military research and data collection functions and facilities into a single ocean research service.

3. The Costs and Benefits of Reorganization

The realignment and reorganization of government responsibilities and departments is not an activity which can be undertaken lightly. It is inevitably a costly exercise, in time and resources devoted both to planning the reorganization and to carrying it out. In addition, the Committee is aware that the government has sponsored several studies and attempts to integrate interdepartmental fleets to achieve better planning, coordination and efficient use of resources, with little effect. This Committee's predecessor, the Standing Committee on External Affairs and National Defence, recommended in its 1970 report on Canada's Maritime Forces that government fleets not be integrated into a single service.

One of the serious problems that would accompany any attempts at integration would be the bureaucratic conflict that would result. It is to some extent a natural bureaucratic attitude to want to ensure, to the greatest extent possible, that the resources required to

(58) *Ibid.*, 17:14-15.

(59) *Ibid.*, 18:15.

(60) *Ibid.*, 15:9.

fulfill a departmental mandate are at the disposal of that department. This view was clearly expressed in the 1975 *Report of the Task Force on the Consolidation of Government Vessel and Aircraft Fleets*:

...the department having the program mandate should also have control over the necessary resources to carry out that mandate, unless the benefits of separating program from resources were clear and overwhelming. Any other principle, it was argued, would be inconsistent with the concept of ministerial or managerial program responsibility and destructive of sound organizational principles.⁽⁶¹⁾

As Franklyn Griffiths noted, if resources and responsibilities are integrated, "The departments will complain ferociously and say, how can we fulfill our mandates?"⁽⁶²⁾

Reorganization might also encounter the opposite bureaucratic attitude: agencies which do not want additional responsibilities. Martin Shadwick described this view in reference to DND:

This school of thought in a sense want to pull in the DND perimeter, and, far from going after new missions in [quasi-military] areas, would ... welcome the jettisoning of current roles in those areas — for example, things like search and rescue... Their thinking perhaps is that if those roles are jettisoned, it will free up money that may be used to protect the core military activities of the armed forces.⁽⁶³⁾

Other witnesses did not think that complete integration was wise. Denis Davies of the Department of Environment pointed out:

...in many of the issues the government must face, there are different ways of organizing. Often it gets very complex, just because of the wide diversity of interests, and sometimes in solving one problem by bringing a group together, it may create others.⁽⁶⁴⁾

Furthermore, Rear-Admiral Crickard argued:

I do not think it is necessary to go as far as a complete unification or integration of all government fleets, where this would mean common training, supply, and support systems. In fact, I think that would be a very bad move. All these government fleets, including the navy, have different characteristics and different capabilities, and they complement each other.⁽⁶⁵⁾

The Committee, however, believes that there may be infrastructure economies of scale to be gained from some integration of government air and surface fleets which would not significantly interfere with the ability of departments to fulfill their mandates. Currently,

(61) Department of Fisheries and Oceans, Departmental Submission, Response T4.

(62) Proceedings, 13:29.

(63) *Ibid.*, 18:12.

(64) *Ibid.*, 8:14.

(65) *Ibid.*, 13:28.

departments which want to operate small fleets of their own must, in any case, either borrow other departments' infrastructure, as in the case of DOE aircraft using Canadian Forces facilities to support ice reconnaissance aircraft, or develop their own operating infrastructure, which is not likely to be cost-efficient. Francois Pouliot explained the problem with reference to aerial fisheries surveillance:

There are times when we do not need extensive air coverage. There is also the whole problem of maintenance of these aircraft. We do not have the personnel to do this. In the old days, when it was done by the Department of National Defence, it was fine. But we do not have the resources, personnel or otherwise really to be able to sustain our own aircraft.⁽⁶⁶⁾

DFO's solution, under these circumstances, is to privatize the service and lease aircraft, a process about which the Committee has significant reservations, as has already been noted.

4. Personnel Issues in Reorganization

Any reorganization of governmental marine activity involving integration or amalgamation of departmental resources would inevitably have an impact on personnel. In some cases, personnel might have to transfer or be seconded to different departments or assume new responsibilities. While the precise nature and extent of the problems which might arise would depend on the particular circumstances of the reorganization, two issues do stand out. If the reorganization involved the transfer of resources and responsibilities to the Department of National Defence, then personnel currently working for other departments could face greater obligations than at present. It is not evident that those who have joined a non-military organization would join a military one to perform the same task. However, there are currently a few naval vessels, principally research vessels, that are predominantly crewed by civilians, and some special arrangement could be arrived at.

Second, integration might involve a greater likelihood that government personnel would be called upon to perform enforcement functions. It might, therefore, be desirable to train as many as possible in a variety of peace officer functions, in effect creating general maritime enforcement officers. The current arrangements whereby RCMP officers are appointed Fisheries, Wildlife, Customs and Game Officers to fulfill various responsibilities could provide a model. Problems might develop in attempting to reconcile military and peace officer responsibilities, or in delegating peace officer responsibilities to the resolutely civilian Canadian Coast Guard. Perhaps the most satisfactory alternative would be to embark officers with different statutory responsibilities on government vessels on a routine basis.

⁽⁶⁶⁾ Proceedings, 11:20.

5. Conclusions and Recommendations

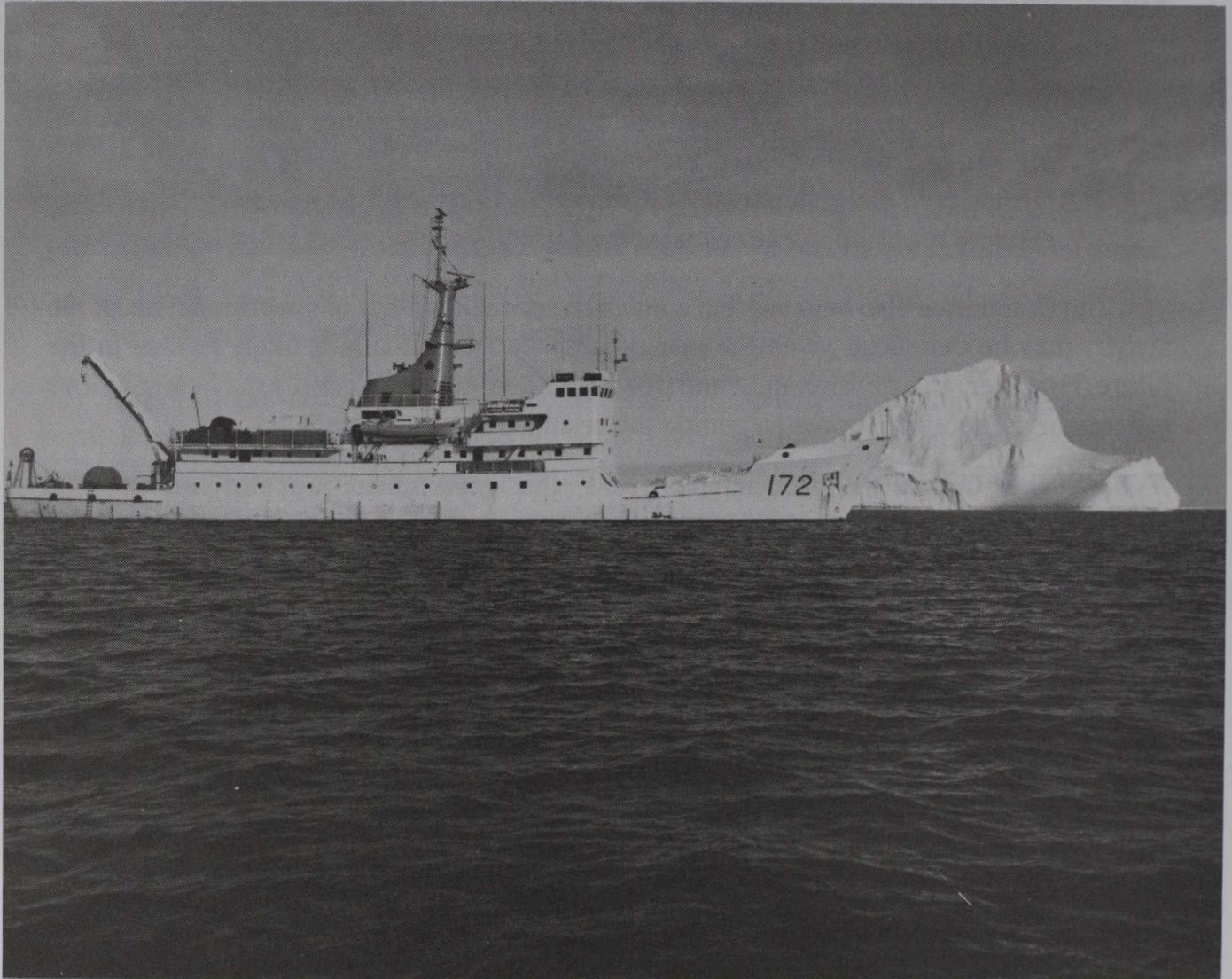
In light of the evidence that current maritime coordination could be made more effective if the Search and Rescue model was more broadly employed.

XVI The Committee recommends that the government establish emergency operations centres for all three coasts and the Great Lakes on the model of the Rescue Coordination Centres. The emergency centres should include representatives from all departments operating ships and aircraft on Canada's coasts and the Great Lakes. They should have the authority to direct departmental resources to respond as necessary to emergency situations or requests for assistance.

The Committee also believes that a much larger realignment of government maritime activity may be beneficial given the maritime challenges Canada is likely to face in the future. However, an extensive audit and canvas of alternatives to identify the best solutions is necessary. Therefore, notwithstanding the results of previous studies:

XVII The Committee recommends that the government appoint an independent panel of experts to study federal government activities in Canada's maritime jurisdictions. The panel must be given access to all relevant departments and departmental information, as well as to previous evaluations and program effectiveness studies of governmental maritime activities. The mandate of the study must be clearly and publicly defined, and should include, at least, evaluations of:

- governmental divisions of responsibility with a view to rationalization;
- coordination among government departments and, where relevant, between government and the private sector with a view to clarifying and rationalizing linkages;
- government air and vessel fleet equipment and operations with a view to reducing inefficiencies;
- possible integrated command and control structures with a view to exercising optimum use of resources and ensuring a more rapid response;
- the costs and benefits of reorganizing governmental maritime activities; and
- mechanisms to implement the conclusions and recommendations of the study.



The oceanographic research ship *Quest* in Canadian Arctic waters

C. THE CANADIAN FORCES

The Committee was repeatedly reminded that the primary purpose of the armed forces is to defend Canada against military threats. Admiral Robert Falls, former Chief of the Defence Staff, stated:

...if Canada's Armed Forces are properly structured and equipped for the right reasons, they will first and foremost be a professional military force, and the ability to use force in response to a direct challenge to our sovereignty will automatically have been adequately addressed. Such forces will also have the capability to provide the surveillance and presence necessary to the assertion of sovereignty and be available to assist in the enforcement of Canadian law...⁽⁶⁷⁾

The Committee agrees that the Canadian Forces must always be prepared to defend Canada militarily, and to operate in a military threat environment.

Nevertheless, in the absence of a clear and present military threat, there may be a public perception that the need for armed forces is diminishing. As the Gulf crisis has shown, however, the international environment is neither static nor particularly stable. Once allowed to disappear, military capabilities are difficult and costly to rebuild, and it is the Committee's view that even in a pure military sense, it is important to maintain balanced and flexible military forces.

At the same time, the benefits the Canadian Forces provide to Canada go far beyond purely military ones. In the Committee's opinion, the work the Forces do on a day-to-day basis in such areas as search and rescue and cooperation with other departments in maritime matters is not fully appreciated by most Canadians. Apart from these ongoing roles, the military is also available to assist civilian authority as necessary in emergency situations. While their training and expertise allows them to assist in many areas, however, the military cannot automatically solve problems or confront challenges it has not prepared for. As a Report to the Premier of British Columbia on marine spills noted with regard to military aid in spill emergencies:

The Canadian policy with respect to the use of the military appears to combine the worst of all worlds. On the one hand, the military is expected to respond to spill emergencies when other agencies have shown themselves incapable of handling the problem without them. Inevitably, this means that they will be called in late, when the opportunity of a successful effort will be slim indeed. On the other, because they constitute a final reserve, it is unlikely that spill response training will be a matter of priority, or that the personnel ultimately sent will be effectively equipped and trained with specialized equipment. Indeed, at the present time, I understand that the Canadian military

⁽⁶⁷⁾ Ibid., 16:6.

receive no spill response training and have no specialized equipment for this work, other than what is incidental to the deployment of naval vessels. On both counts, the Armed Forces response to a spill can be expected to be ineffectual, through no fault of the military, but by reason of the policy vacuum.⁽⁶⁸⁾

Even in terms of numbers, DND's resources are not unlimited. As it noted in its presentation to the Public Review Panel on Oil Spills and Tanker Safety:

It is perhaps unfortunate that when the public think of calling out the army, many think of thousands of troops capable of descending instantly onto whatever problem may need to be solved... The reality is that the troops are few, widely spread and better employed in a specialized support role than a front-line role. Should the emergency be such as to warrant the declaration of a national emergency as defined in the *Emergencies Act*, the C[anadian] F[orces] could produce some 5,000 troops only and very few could be instantaneously deployed.⁽⁶⁹⁾

The Committee does not believe that the Canadian Forces should be primarily structured, equipped or trained for non-military or "quasi-military" maritime tasks, but rather that more consideration should be given to identifying those tasks which will become more important in the future and how the military can assist in performing them. While this process will challenge the Canadian Forces, they have a long history of rising to challenges, and the Committee agrees with Major-General Cheriton that some loss to the combat edge may have to be accepted "as the price to be paid for contemporary relevance."⁽⁷⁰⁾

In terms of organization, while the Committee does not wish to pre-judge the outcome of the broad study of government maritime activity it has recommended, it wishes to state its opinion for the record. If the study should conclude that a restructuring of government maritime assets and roles is appropriate, the Committee feels that the Canadian Forces would be a logical candidate as a focus for such a process. Although its operating costs may be somewhat higher than those of other departments involved in the maritime environment, due to its need to maintain military effectiveness, its training standards are unsurpassed in Canada, as are its command and control capabilities.

While this report has concerned itself with maritime issues, these must be addressed within the broader context of Canadian defence and security policy. The Committee believes that what is also needed is a redefinition of Canada's defence priorities which takes into account the changes in East-West relations, evolving security threats in their broadest sense, and puts forward viable medium- and long-term plans to meet national and

(68) David Anderson, Report to the Premier, p. 91.

(69) Department of National Defence, Oral Presentation, p. 9-10.

(70) Proceedings, 14:10.

international objectives. In the near term, this report hopefully will contribute to a national debate on defence and security issues, particularly those issues directly related to Canada's maritime interests.

The necessary national consensus can only be built if the Canadian public is involved in the process. In view of the importance of defence spending in relation to government expenditures — eight cents of every tax dollar — security policies can only be sustained if they meet the concerns of Canadians. In an era when the traditional threat is fading, any in-depth review of security policy would serve as a vehicle for increasing awareness of the many valuable roles carried out by the Forces at home and abroad. Public appreciation of those tasks and an understanding of their importance in a broader security framework would go a long way towards ensuring that Canada possess the necessary capabilities to meet future requirements. The Gulf Crisis and the resolution of the confrontation at Oka have highlighted the importance of the Canadian Forces.

All Committee Members share the belief that the government should undertake a major re-examination of Canadian security policy. A new review ought to be public, extensive, and culminate in the publication of policy recommendations by 1 January 1992. Therefore:

XVIII The Committee recommends that the government undertake a major public review of Canadian security policy in its broadest sense and that the review be completed by 1 January 1992.

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LIST OF WITNESSES

THURSDAY, OCTOBER 19, 1989 (Issue No. 5):

From the Department of National Defence:

General John de Chastelain,
Chief of the Defence Staff;

Vice-Admiral Charles Thomas,
Vice Chief of the Defence Staff;

Lieutenant-General David Huddleston,
Deputy Chief of the Defence Staff;

Vice-Admiral Robert E. George,
Commander, Maritime Command;

Rear-Admiral Denis Boyle,
Chief, Engineering and Maintenance.

WEDNESDAY, NOVEMBER 22, 1989 (Issue No. 6):

From the Department of External Affairs:

Serge April,
Director General, Legal Affairs Bureau;

Robert Rochon,
Director, Legal Operations Division.

THURSDAY, NOVEMBER 23, 1989 (Issue No. 7):

From Transport Canada:

R.A. Quail,
Assistant Deputy Minister,
Marine Transport and Commissioner of the Coast Guard.

WEDNESDAY, NOVEMBER 29, 1989 (Issue No. 8):

From Environment Canada:

Denis Davies
Director General, Inland Waters;

Dave Thornton,
Director, Environmental Technology Centre;

Gisèle Jacob,
Director, Regulatory Affairs and Program Integration.

WEDNESDAY, DECEMBER 6, 1989 (Issue No. 9):

From the Royal Canadian Mounted Police:

Norman D. Inkster, Commissioner;

Marcel Coutu, Assistant Commissioner;

Dennis Farrell, Assistant Commissioner.

From Solicitor General of Canada:

D. Ian Glen, Assistant Deputy Solicitor General,
Police and Security.

TUESDAY, DECEMBER 12, 1989 (Issue No. 10):

From the Naval Officers Associations of Canada:

Captain Paul Godbout (ret.),
President, Ottawa Branch;

Captain Leslie Hutchins,
Past President, Ottawa Branch.

WEDNESDAY, DECEMBER 13, 1989 (Issue No. 11):

From the Department of Fisheries and Oceans:

François Pouliot, Assistant Deputy Minister;

Hugh Trudeau, Director, Atlantic Operations;

Dennis Brock, Director, Regulations and Equipment;

Victor Rabinovitch, Assistant Deputy Minister, International Affairs.

THURSDAY, JANUARY 25, 1990 (Issue No. 12):

Individual:

General Gérard Theriault, (ret.)
Former Canadian Chief of the Defence Staff;

From the Canadian Institute of Strategic Studies:

Alex Morrison, Executive Director.

From the Canadian Institute for International Peace and Security:

Roger Hill, Director of Research.

THURSDAY, FEBRUARY 1, 1990 (Issue No. 13):

From Dalhousie University:

Rear-Admiral Fred Crickard (ret.),
Research Associate, Centre for Foreign Policy Studies.

From Simon Fraser University:

Professor Douglas Ross, Centre for International Studies.

From the University of Toronto:

Franklyn Griffiths.

WEDNESDAY, FEBRUARY 7, 1990 (Issue No. 14):

From the University of Montreal:

Professeur Jean-Paul Brodeur, Director,
Centre for Comparative Criminology.

Individual:

Major-General G. R. Cheriton (ret.),
Chairman, Counter-Terrorism Task Force.

THURSDAY, FEBRUARY 8, 1990 (Issue No. 15):

From the Canadian Arctic Resources Committee:

Stephen Hazell, Executive Director.

From the Oceans Institute of Canada:

Cynthia Lamson, Associate Director.

From Inuit Tapirisat of Canada:

John Amagoalik.

WEDNESDAY, FEBRUARY 14, 1990 (Issue No. 16):

Individual:

Admiral Robert Falls (ret.),
Former Canadian Chief of the Defence Staff.

From Project Ploughshares:

Ernie Regehr, Research Coordinator;

Major-General Leonard Johnson (ret.), Chairperson.

THURSDAY, FEBRUARY 22, 1990 (Issue No. 17):

From the Canadian Centre for Arms Control and Disarmament:

John Lamb, Executive Director;

Tariq Rauf, Senior Research Associate.

From Veterans Against Nuclear Arms Association:

Ray Creary, Vice-President.

TUESDAY, MARCH 6, 1990 (Issue No. 18):

From the Centre for International and Strategic Studies:

Martin Shadwick, Research Associate.

THURSDAY, MARCH 8, 1990 (Issue No. 20):

From the Department of Fisheries and Oceans:

Carl Goodwin, Chief of Surveillance and Operations;

François Pouliot, Senior Assistant Deputy Minister;

Bernie Sullivan, Fisheries Officer.

From the Department of National Defence:

Lieutenant-General David Huddleston,
Deputy Chief of the Defence Staff;

Commander E.J. Lerhe, C.D., Commanding Officer,
H.M.C.S. Saguenay;

From External Affairs:

Serge April, Director General, Legal Affairs Bureau.

From the Privy Council Office:

William Rowat, Assistant Secretary to the Cabinet,
(Government Operations and Labour Relations).

THURSDAY, MARCH 15, 1990 (Issue No. 21).

From the U.S. Coast Guard:

Commander Bruce Leek, Liaison Officer, Department of State,
Bureau of International Narcotics Matters.

From the Drug Enforcement Administration:

John Brophy, Liaison Officer, Department of State,
Bureau of International Narcotics Matters.

APPENDICES

1. CURRENT AND PLANNED CANADIAN NAVAL AND GOVERNMENT MARITIME ASSETS
2. INVENTORY OF FEDERAL OCEANS-RELATED PROGRAMS AND ACTIVITIES.
3. INVENTORY OF DEPARTMENT OF NATIONAL DEFENCE COOPERATION WITH OTHER FEDERAL DEPARTMENTS IN A MARITIME CONTEXT.

Current and Planned Canadian Naval and Governmental Maritime Assets

Department of National Defence, Maritime Command and Maritime Air Group

Name	Commissioned	Displacement*	Armament	Notes
Submarines—Oberon Class				
Ojibwa	1965	2449	8 torpedo tubes (6 bow, 2 stern) for 20 Mk 48 torpedoes.	Oberon class scheduled for disposal after 1996.
Onondaga	1967	"	as above	
Okanagan	1968	"	" "	
Destroyers—Tribal Class				
Iroquois	1972	5182	1 Vertical Launch System for 29 Standard anti-aircraft missiles, 1 76 mm gun, 1 Phalanx anti-missile gun, 6 torpedo tubes for Mk 46 anti-submarine torpedoes, 2 anti-submarine warfare helicopters.	Algonquin and Iroquois currently undergoing Tribal Update and Modernization Program. All four ships due to be modified by 1992.
Huron	1972	4775	2 quad Sea Sparrow anti-aircraft missile launchers, 1,127mm gun, 1 3-tubed Mk 10 anti-submarine mortar 2 anti-submarine warfare helicopters.	
Athabaskan	1972	"	as above	
Algonquin	1973	5182	as Iroquois	
Frigates—City Class				
Halifax		4826	2 quad Harpoon anti-ship missile launchers, 2 octuple Sea Sparrow anti-aircraft missile launchers, 1 57mm gun, 1 Phalanx anti-missile gun, 4 torpedo tubes for Mk 46 anti-submarine torpedoes, 1 anti-submarine helicopter.	The first seven vessels are at various stages of construction. Commissioning dates have been pushed back by construction delays. HMCS Halifax is now expected to be delivered in 1991, and HMCS Ottawa in 1996.
Vancouver		"	" "	
Ville de Quebec		"	" "	
Toronto		"	" "	
Regina		"	" "	
Calgary		"	" "	
Montreal		"	" "	
Fredericton		"	" "	
Winnipeg		"	" "	
Charlottetown		"	" "	
St. John's		"	" "	
Ottawa		"	" "	
Frigates—Mackenzie Class				
Mackenzie	1962	2926	2 twin 76mm gun mountings, 6 torpedo tubes for Mk 46 anti-submarine torpedoes.	Modernized under the Destroyer Life Extension Program (1982-85) to operate until 1990-93 but may be further extended..
Saskatchewan	1963	"	as above	
Yukon	1963	"	" "	
Qu'Appelle	1963	"	" "	
Frigates—Improved Restigouche Class				
Gatineau	1959	2946	1 octuple rocket launcher for Mk 46 anti-submarine torpedoes, 2 76mm guns, 6 torpedo tubes for Mk 46 anti-submarine torpedoes, 1 3-tubed Mk 10 anti-submarine mortar.	Modernized under the Destroyer Life Extension Program (1983-86) to operate until 1991-94.
Restigouche	1958	"	as above	
Kootenay	1959	"	" "	
Terra Nova	1959	"	" "	

Name	Commissioned	Displacement*	Armament	Notes
Frigates—St. Laurent Class				
Saguenay	1956	3100	2 76mm guns, 6 torpedo tubes for Mk 46 anti-submarine torpedoes, 1 3-tubed Mk 10 anti-submarine mortar, 1 anti-submarine warfare helicopter.	Modernized under the Destroyer Life Extension Program (1979-82). Skeena and Saguenay to decommission in 1990, Margaree and Ottawa in 1991, and Fraser in 1993.
Skeena	1957	"	as above	
Ottawa	1956	"	" "	
Margaree	1957	"	" "	
Fraser	1957	"	" "	
Frigates—Annapolis Class				
Annapolis	1964	2977	2 76mm guns, 6 torpedo tubes for Mk 46 anti-submarine torpedoes, 1 anti-submarine warfare helicopter.	Modernized under DELEX (1982-86) to operate until 1991.
Nipigon	1964	"	as above	
Mine Warfare Vessels— Minesweeper Auxiliary				
Anticosti	1989	1093	Mechanical mine sweeps.	Former towing vessels commissioned in 1973.
Moresby	1989	"	as above	
Mine Warfare Vessels— Maritime Coastal Defence Vessels				
(12 Unnamed) Planned	1993-94	6-800	1 40mm gun, 2 machine guns, mechanical, acoustic and magnetic sweep gear.	To be manned by Reservists.
Operational Support Ships				
Provider	1963	22352	3 anti-submarine warfare helicopters.	
Protecteur	1969	25095	Fitted for 2 76mm guns, 3 anti-submarine warfare helicopters.	
Preserver	1970	"	as above	
Operational Support Ships— Dun Class				
Dundurn	?	1524	none	Small tanker.
Operational Support Ships— Fleet Diving Support				
Cormorant	1978	2388	none	Carries 2 submersibles.
Research Vessels				
Endeavour	1965	1585	none	
Quest	1969	2164	none	
Riverton	1990	2604	none	
Other Vessels				
Maritime Command also operates some 54 miscellaneous vessels as patrol boats, gate vessels, firefighting craft, naval reserve training vessels, diving tenders and tugs. Of these, 11 patrol and gate vessels displace over 400 tonnes each while 2 tugs displace over 800 tonnes each.				
Aircraft—Shipborne Aircraft				
34 CH-124A Sea King helicopters			Up to 4 Mk 46 anti-submarine torpedoes or Mk 11 depth bombs.	To be replaced by EH 101 helicopters in due course.
Aircraft—Land-Based Maritime Aircraft				
18 CP-140 Aurora			Anti-submarine, surface vessel and Arctic surveillance sensors, may carry associated air-droppable weapons.	Arcturus are very austere versions of the Auroras for Arctic patrol and training purposes.
3 P-3C Arcturus			Surface and Arctic surveillance sensors.	

* Displacements are listed in metric tonnes, submarine displacements are submerged.

Department of Transport, Canadian Coast Guard

Type	No. Active	Commissioned	Displacement (tonnes)
Vessels			
Heavy Icebreakers	7	1960-1988	6,421-14,021
Heavy Icebreaker/Cable Ship	1	1965	6,477
Light Icebreaker/Navais Tenders	11	1959-1987	2,982-4,737
Ice Strengthened Navais Tenders	11	1956-1969	573-2,256
Small Navais Tenders	9	1969-1986	81-386
Small River Navais Tenders	5	1958-1988	106-870
Offshore SAR Cutters	3	1969-1990	2,057*
Ice Strengthened Offshore SAR Cutters	4	1972-1987	2,113-3,813
Small SAR Cutters	9	1963-1982	50-141
SAR Lifeboats	17	1969-1989	10-35
Small Ice Strengthened SAR Cutters	2	1986	229
Small SAR Utility Craft	12	1973-1987	5-20
Training Vessels	1	1959	627
Survey and Sounding Vessel	1	1966	950
Hovercraft	4	1968-1987	11-49
Total	97		
(plus approximately 35 Inshore Rescue Craft)			
Aircraft			
Light Utility Helicopters	29		
Medium Utility Helicopters	5		
Heavy Utility Helicopters	1		
Fixed Wing Aircraft	1		
Total	36		

*Two of these vessels are recently commissioned. Displacement refers only to the older vessel.

Department of Fisheries and Oceans

Type	No. Active	Commissioned	Displacement (tonnes)
Large Fishery Patrol Vessels	7*	1966-1985	300-2,280
Fishery Research Vessels	4	1966-1982	
Hydrographic and Oceanographic Vessels	11	1956-1985	

(The Department of Fisheries and Oceans also operates some 700 medium and small patrol craft)

*Five of these vessels are fitted to mount two machine guns each. Three can operate a light helicopter.

Source: *Jane's Fighting Ships 1990-91*, Coulsdon, Surrey: Jane's Information Group, 1990, pp. 76-95

Inventory of Federal Oceans-Related Programs and Activities

Program	Department Responsible	or Agency Resource	Governing Legislation	Program Resources*	
				\$M	PYs
Marine Transportation					
Marine Navigation Systems	CCG	DND	Canada Shipping Act	210	3300
Marine Regulatory: Ship Safety	CCG	DND,RCMP	Canada Shipping Act Transportation of Dangerous Goods Act	23	395
Icebreaking and Other Arctic Operations	CCG		Arctic Waters Pollution Prevention Act National Transportation Act	90	1025
Harbour Management	CCG	DND,RCMP	Public Harbours and Port Facilities Act	37	90
Hydrography	DFO	CCG	Government Organization Act 1979 Territorial Seas and Fishing Zones Act Charts and Publications Regulations	40	585
Marine Services					
Search and Rescue	DND/CCG	DFO	Safety of life at Sea Convention Canada Shipping Act	120	1820
Ice Management/Flood Control	CCG		Department of Transport Act	6	65
Eastern Arctic Sealift	CCG		Treasury Board Approval (June 1981)	7	11
Marine Architecture and Engineering	PW		Public Works Act	165	410
Dredging and Fleet Services	PW		Public Works Act	25	240
Small Craft Harbours	DFO		Government Organization Act Fishing & Recreational Harbours Act	43	95
Ice Services	DOE	DND,CCG	Government Organization Act (1970 and 1979)		
Marine Weather	DOE	DND,CCG	Government Organization Act (1970)	2	29
Marine Climate	DOE		Government Organization Act (1970 and 1979)	1	5
Offshore Surveys	EMR		Canada Lands Survey Act (1970) Government Organization Act (1970 and 1979) Resource and Technical Surveys Act (1966-67)	0.3	6
Marine Transport Export Services	DEA		External Affairs Act (1983)	0.1	2
Resource Development and Management (incl. environmental protection)					
Fisheries Resource Allocation, Licensing and Regulations	DFO		Fisheries Act	13	200
Monitoring, Control & Surveillance	DFO/CCG	DND,	Fisheries Act	44	925
Inshore and Nearshore		RCMP	Coastal Fisheries Protection Act		
Fisheries Enhancement and Development	DFO		Fisheries Development Act	68	420
Habitat Management	DFO	DOE	Fisheries Act	6	75
Arctic Marine Conservation	DFO		Fisheries Act		
Petroleum Development - COGLA	EMR/ DIAND	DND	Canada Oil and Gas Act Oil and Gas Production and Conservation Act Canadian Petroleum Resource Act	17	225
Marine Pollution Surveillance and Prevention	DOE	DND,CCG, DFO	Canadian Environmental Protection Act	-	-
Control of Pollution from Land Based Sources	DOE		Government Organization Act (1979) Fisheries Act, Section 33	2	35

Program	Department Responsible	or Agency Resource	Governing Legislation	Program Resources*	
				\$M	PYs
Control of Pollution from Land Based Sources	DOE		Government Organization Act (1979) Fisheries Act, Section 36-42 Canadian Environmental Protection Act (CEPA)	2	35
Resources Development and Management (incl. environmental protection)(cont.)					
Environmental Protection – Offshore Petroleum and Mineral Resources	DOE	COGLA	Government Organization Act (1979) Fisheries Act, Section 36-42 CEPA, Part IV	1	9
Toxic Substances Control	DOE		Fisheries Act, Section 36-42 CEPA, Part IV	1	12
Control of Ship-Source Discharges	CCG		Government Organization Act (1979) Fisheries Act, Section 36-42	0.2	3
National Marine Parks	DOE	CCG	National Parks Act	0.3	3
Protection of Marine Wildlife	DOE	RCMP, DFO	Canada Wildlife Act Migratory Birds Convention Act	1.2	20
Marine Environmental Protection World-wide	DEA		External Affairs Act (1982)	0.3	2
Emergencies/Clean-up of Ship Source Pollution	CCG	DND, DFO	Canada Shipping Act Emergency Planning Orders National Marine Emergency Plan	5	60
Pollution Prevention in Arctic Waters	DIAND	CCG	Arctic Waters Pollution Prevention Act	0.2	4
Framework for Development of Offshore Non-Fuel Minerals	EMR		Energy, Mines and Resources Act	0.3	3
Offshore Geoscience Information	EMR		Resource and Technology Surveys Act Energy, Mines and Resources Act	14	75
Sovereignty, Defence and Law of the Sea					
Maritime Boundary Disputes	DEA		External Affairs Act (1983)	0.2	5
U.S-Canada Arctic Co-operation and Co-ordination	DEA		External Affairs Act (1983)	0.1	1.5
Law of the Sea	DEA		External Affairs Act (1983)	0.1	1
International Fisheries Agreements	DEA	DFO	Fisheries Act	0.2	6
Monitoring, Control & Surveillance Offshore	DND/CCG DFODEA RCMP		External Affairs Act (1983) Coastal Fisheries Protection Act Fisheries Act Territorial Sea & Fishing Zones Act	36	310
Maritime Command	DND		National Defence Act	2608	18488
Maritime Air Group	DND		National Defence Act	449	5005
Federal Law Enforcement					
Prevention, Detection and Investigation of Offences against Federal Statutes and Executive Orders in Canadian Territorial Waters	RCMP	DND, CCG, DFO	Royal Canadian Mounted Police Act	N/A	N/A
Interdiction of Narcotics	RCMP	DND, CCG Revenue	Narcotics Control Act	59	N/A
Marine counter-terrorism	RCMP	DND	Security Offences Act	-	-

Program	Department Responsible	or Agency Resource	Governing Legislation	Program Resources*	
				\$M	PYs
Control of Immigration	EIC	DND, CCG DFO, RCMP	Immigration Act	N/A	N/A
Northern Development					
Northern Land Use Planning	DIAND		Indian Affairs & Northern Development Act	2	22
Indian and Inuit Environmental Protection	DIAND		Indian Act	0.5	1
Studies for Northern Oil & Gas Resource Management	DIAND		Indian and Northern Affairs Act	1	5
Granular Resources and Man-made Islands in Beaufort	DIAND		Public Lands Grants Act	0.4	1
Petroleum Development and Related Environmental Protection - COGLA	DIAND		Oil and Gas Conservation and Protection Act		
Arctic Icebreaking	CCG		Canada Oil and Gas Act Canada Shipping Act Arctic Waters Pollution Prevention Act		
Industrial Development					
Action Program	ACOA		Government Organization Act, Atlantic Canada 1987	*	*
Newfoundland Ocean Industries Development Agreement	ACOA		Economic and Regional Development Agreement	*	*
Canada/Nova Scotia Development Fund	COGLA		Federal/Provincial Agreement (1984)	*	*
Subsidiary Agreement					
Canada/Newfoundland Offshore Development Fund	COGLA		Canada/Newfoundland Atlantic Accord, Implementation Acts	*	*
Western Diversification Program	WDO		Western Economic Diversification Act (1988)	*	*
Operation and Maintenance of Certain Dry Docks	PW		Public Works Act	4.6	5.3
International Fish Trade Development	DEA		External Affairs Act (1983)	0.4	8
Program for Export Market Development	DEA		External Affairs Act (1983)	5	-
Marine Science and Technology Development					
Fisheries Resource Assessment Research	DFO		Fisheries Act	75	930
Aquaculture Research	DFO		Fisheries Development Act	7	105
Habitat Assessment and Research	DFO	DOE	Fisheries Act	8	110
Resource Development Research	DFO	CCG	Fisheries Development Act	20	195
Physical Oceanography	DFO	CCG	Government Organization Act (1979)	27	361
Chemical Oceanography	DFO	CCG	Government Organization Act (1979)	7	107
Marine Ecology	DFO		Government Organization Act (1979)	14	179
Offshore Geoscience Activities	EMR	CCG	Resource & Technical Survey Act	9	110
Materials for Offshore Structures	EMR		Energy, Mines and Resources Mandate/ PERD	2	9
Remote Sensing Relating to Oceans	EMR		Treasury Board Minute	0.2	1
Ocean Drilling Program	EMR		Energy, Mines and Resources Act Cabinet Decision	4	3

Marine Engineering (incl. \$1500M IRAP/PILP)	NRC	NRC Act (1966-67)	10	65
Marine Biology and Chemistry (incl. \$1.5M IRAP/PILP)		NRC Act (1966-67)	5	33
Grant Support to Universities	NSERC	NSERC Act	9.8	-
Climate Research	DOE	Government Organization Act (1979)	1	5
Canada/Nfld. Institute of Fisheries and Marine Technology Subsidiary Agreements	DRIE	Industrial and Regional Development Act		
Defence R. & D	DND	National Defence Act	90	5324
Arctic R & D	CCG	Arctic Waters Pollution Prevention Act	2	3
Technology Inflow Program	DEA		*	-
Industrial Research Assistance Program	NRC		*	-
Total Oceans-Related Activities				
Excluding Maritime Command and Air Group			1438	17777
Including Maritime Command and Air Group			4495	41270

Note: Most of the financial resource data relates to fiscal year 1988/89.

* These assistance programs and activities are not targeted exclusively at the oceans sector.

CCG - Canadian Coast Guard
 COGLA - Canadian Oil and Gas Lands Administration
 DEA - Department of External Affairs
 DFO - Department of Fisheries and Oceans
 DIAND - Department of Indian Affairs and Northern Development
 DND - Department of National Defence
 DOE - Department of Environment
 DRIE - Department of Regional Industrial Expansion
 DSS - Department of Supply and Services
 EIC - Department of Employment and Immigration Canada
 EMR - Department of Energy, Mines and Resources
 NRC - National Research Council
 NSERC - Natural Sciences and Engineering Research Council
 PW - Department of Public Works
 RCMP - Royal Canadian Mounted Police

Adapted from: Department of Fisheries and Oceans, *Canada's Oceans: An Economic Overview and A Guide to Federal Government Activities* (1989 Edition), Ottawa: Minister of Supply and Services, 1989, pp. 37-40

**Inventory of Department of National Defence Co-operation
with Other Federal Departments in a Maritime Context¹**

Activity	Co-operating Department	Co-ordinating Arrangement	Cost Recovery
Use of DND resources for marine spill clean-up	CCG	MoU/contingency plans	?
Administration of dangerous goods shipping regulations	CCG	informal	?
Invocation of the Emergencies Act, takeover of Coast Guard ships, aircraft, radio stations, navigation aids and marine traffic centres	CCG	MoU/contingency plans	N/A
Search and rescue	CCG/DFO	Integrated command joint	
Fisheries patrols, aircraft hours (420) and ship days (95)	DFO	MoU	no ²
Acquisition of machine-guns and ammunition	DFO	Letter of Arrangement	yes
Pollution surveillance	DOE	incidental	no
Meteorological services	DOE	MoU	yes
Ice reconnaissance support	DOE	MoU	yes
Drug interdiction platform support, aircraft hours (750) and ship days (20)	RCMP	MoU	no ²
Drug interdiction intelligence and surveillance	RCMP	MoU	no
Support for RCMP Special Emergency Response Team	RCMP	MoU	yes
VIP security	RCMP	MoU	no
Ports security during emergencies	RCMP	MoU/contingency plans	N/A
Marine arrival of refugee claimants and illegal immigrants	EIC	MoU/contingency plans	?
Investigation of diving accidents	EMR	MoU	yes
Use of DND resources for marine public welfare emergencies	EPC	contingency plans	yes

¹ The inventory is based on information provided by federal departments including National Defence and may be incomplete.

² Costs for previously agreed levels of assistance are not recovered, but additional incidental requests for DND resources are cost recovered.

- CCG – Canadian Coast Guard
- DFO – Department of Fisheries and Oceans
- DOE – Department of Environment
- RCMP – Royal Canadian Mounted Police
- EIC – Employment and Immigration Canada
- EMR – Department of Energy, Mines and Resources
- EPC – Emergency Preparedness Canada

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, your Committee requests that the Government table a comprehensive response to the Report within 150 days.

A copy of the relevant Minutes of Proceedings and Evidence of the Standing Committee on National Defence and Veterans' Affairs (Issues Nos. 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 28 which includes this Report) is tabled.

Respectfully submitted,

ARNOLD MALONE, M.P.

Chairman

MINUTES OF PROCEEDINGS

THURSDAY, OCTOBER 4, 1990 (39)

[Text]

The Standing Committee on National Defence and Veterans Affairs met *in camera* at 11:15 o'clock a.m., this day, in Room 307, West Block, the Vice-Chairman, Marc Ferland, presiding.

Members of the Committee present: Stan Darling, Marc Ferland, Girve Fretz and Bob Hicks.

Other Member present: John Brewin

In attendance: From the Library of Parliament: Wolfgang Koerner, Researcher. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* David Lord, Researcher.

The Committee considered its future business.

At 11:30 o'clock a.m., the Committee adjourned to the call of the Chair.

TUESDAY, OCTOBER 23, 1990 (40)

The Standing Committee on National Defence and Veterans Affairs met *in camera* at 9:40 o'clock a.m., this day, in Room 208, West Block, the Chairman, Arnold Malone, presiding.

Members of the Committee present: Stan Darling, Marc Ferland, Girve Fretz, Bob Hicks, Arnold Malone and Fred Mifflin.

Acting Members present: John Brewin for Derek Blackburn and George Proud for Bill Rompkey.

In attendance: From the Library of Parliament: Wolfgang Koerner, Researcher. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* David Lord, Researcher.

The Committee resumed consideration of Canada's Maritime Sovereignty Report, in accordance with Standing Order 108(2).

At 11:06 o'clock a.m., the Committee adjourned to the call of the Chair.

WEDNESDAY, OCTOBER 24, 1990 (41)

The Standing Committee on National Defence and Veterans Affairs met *in camera* at 3:40 o'clock p.m., this day, in Room 536, Wellington Building, the Chairman, Arnold Malone, presiding.

Members of the Committee present: Stan Darling, Marc Ferland, Bob Hicks, Arnold Malone and Fred Mifflin.

Acting Members present: John Brewin for Derek Blackburn and George Proud for Bill Rompkey.

In attendance: From the Library of Parliament: Wolfgang Koerner, Researcher. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* David Lord, Researcher.

The Committee resumed consideration of Canada's Maritime Sovereignty Report, in accordance with Standing Order 108(2).

It was agreed,—That the Committee print 1000 copies of the report in a bilingual format.

It was agreed,—That the Chairman be authorized to select different photographs to be included in the report.

At 5:45 o'clock p.m., the Committee adjourned to the call of the Chair.

TUESDAY, OCTOBER 30, 1990 (42)

The Standing Committee on National Defence and Veterans Affairs met *in camera* at 9:35 o'clock a.m., this day, in Room 705, 151 Sparks Street, the Chairman, Arnold Malone, presiding.

Members of the Committee present: Stan Darling, Marc Ferland, Girve Fretz, Bob Hicks and Arnold Malone.

Acting Members present: Dan Heap for Derek Blackburn and George Proud for Bill Rompkey.

In attendance: From the Library of Parliament: Wolfgang Koerner, Researcher. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* David Lord, Researcher.

The Committee resumed consideration of Canada's Maritime Sovereignty Report, in accordance with Standing Order 108(2).

It was agreed,—That the Chairman be authorized to make such typographical and editorial changes as may be necessary without changing the substance of the draft report to the House.

It was agreed,—That the Committee request a comprehensive response from the government.

It was agreed,—That the Draft Report, as amended, be concurred in.

It was agreed,—That the Draft Report, as amended, be the Committee's Report to the House.

It was agreed,—That the Chairman report to the House.

It was agreed,—That the Report be printed in special issue format.

Ordered,—That the Clerk order copies of the publication *The Military Balance* for Members and staff.

At 10:25 o'clock a.m., the Committee adjourned to the call of the Chair.

Roger Préfontaine

Clerk of the Committee







La justice de la Cour
Roger Freymont

Le 10 5 23, le Comité a voté la nouvelle composition du président.

(Résumé journalier) par les membres du personnel.

Il est ordonné - Que le premier commandant des exercices de *The Military Balance*

Il est convenu - Que le rapport sera imprimé sous forme de fascicule.

Il est convenu - Que le président présente le rapport à la Chambre.

Chambre

Il est convenu - Que le projet de rapport, modifié, devienne le rapport de la

Il est convenu - Que le projet de rapport, modifié, soit adopté.