Canadian Security Guide Book

2007 EDITION

An Update of Security Problems in Search of Solutions

COASTS

Standing Senate Committee on National Security and Defence

March 2007

39th Parliament – 1st Session

STANDING COMMITTEE ON NATIONAL SECURITY AND DEFENCE

The Honourable Colin Kenny, *Chair*The Honourable Norman K. Atkins, *Deputy Chair*

and

The Honourable Tommy Banks

The Honourable Joseph A. Day

The Honourable Wilfred P. Moore

The Honourable Rod A. A. Zimmer

*The Honourable Marjory LeBreton, P.C., (or the Honourable Gerald Comeau)

*The Honourable Céline Hervieux-Payette (or the Honourable Claudette Tardif)

*Ex Officio Members

Other Senators who participated during the 39th Parliament – 1st Session:

The Honourable George Baker

The Honourable Janis G. Johnson

The Honourable Michael A. Meighen

The Honourable Grant Mitchell

The Honourable Pierre Claude Nolin

The Honourable Hugh Segal

The Honourable Gerry St. Germain, P.C.

The Honourable Terry Stratton

The Honourable David Tkachuk

38th Parliament – 1st Session

STANDING COMMITTEE ON NATIONAL SECURITY AND DEFENCE

The Honourable Colin Kenny, Chair

The Honourable J. Michael Forrestall, Deputy Chair

and

The Honourable Norman K. Atkins

The Honourable Tommy Banks

The Honourable Jane Cordy

The Honourable Joseph A. Day

The Honourable Michael A. Meighen

The Honourable Jim Munson

The Honourable Pierre Claude Nolin

Other Senators who participated during the 38th Parliament – 1st Session:

The Honourable Ione Christensen

The Honourable Anne C. Cools

The Honourable Percy Downe

The Honourable Rose-Marie Losier-Cool

The Honourable John Lynch-Staunton

The Honourable Terry M. Mercer

The Honourable Wilfred P. Moore

The Honourable Donald H. Oliver

The Honourable Gerard A. Phalen

The Honourable William Rompkey

The Honourable Peter A. Stollery

The Honourable David Tkachuk

The Honourable Marilyn Trenholme Counsell

^{*}The Honourable Jack Austin, P.C. (or the Honourable William Rompkey, P.C.)

^{*}The Honourable Noël A. Kinsella (or the Honourable Terry Stratton)

^{*}Ex Officio Members

37th Parliament – 3rd Session

STANDING COMMITTEE ON NATIONAL SECURITY AND DEFENCE

The Honourable Colin Kenny, *Chair*The Honourable J. Michael Forrestall, *Deputy Chair*

and

The Honourable Norman K. Atkins

The Honourable Tommy Banks

The Honourable Jane Cordy

The Honourable Joseph A. Day

The Honourable Michael A. Meighen

The Honourable Jim Munson

The Honourable David P. Smith, P.C.

^{*}The Honourable Jack Austin, P.C. (or the Honourable William Rompkey, P.C.)

^{*}The Honourable John Lynch-Staunton (or the Honourable Noël A. Kinsella)

^{*}Ex Officio Members

37th Parliament – 2nd Session

STANDING COMMITTEE ON NATIONAL SECURITY AND DEFENCE

The Honourable Colin Kenny, *Chair*The Honourable J. Michael Forrestall, *Deputy Chair*

and

The Honourable Norman K. Atkins

The Honourable Tommy Banks

The Honourable Jane Cordy

The Honourable Joseph A. Day

The Honourable Michael A. Meighen

The Honourable David P. Smith, P.C.

The Honourable John (Jack) Wiebe

*The Honourable Sharon Carstairs, P.C. (or the Honourable Fernand Robichaud, P.C.)

*The Honourable John Lynch-Staunton (or the Honourable Noël A. Kinsella)

*Ex Officio Members

37th Parliament – 1st Session

STANDING COMMITTEE ON NATIONAL SECURITY AND DEFENCE

The Honourable Colin Kenny, *Chair*The Honourable J. Michael Forrestall, *Deputy Chair*

and

The Honourable Norman K. Atkins

The Honourable Tommy Banks

The Honourable Jane Cordy

The Honourable Joseph A. Day

The Honourable Laurier L. LaPierre

The Honourable Michael A. Meighen

The Honourable John (Jack) Wiebe

*The Honourable Sharon Carstairs, P.C. (or the Honourable Fernand Robichaud, P.C.)

*The Honourable John Lynch-Staunton (or the Honourable Noël A. Kinsella)

*Ex Officio Members

TABLE OF CONTENTS

Problem 1: Canada's Toothless Coast Guard	1
Problem 2: Too Many Holes to Fill Without a Plan	12
Problem 3: Inadequate Coastal Radar	
Problem 4: Inadequate Short-Range Coastal Patrols	21
Problem 5: Dearth of Long-Range Patrols on Three Coasts	23
Problem 6: Lack of Coastal Warnings Network	25
Problem 7: Lack of Great Lakes Surveillance	31
Problem 8: Lack of Policing on Canada's Inland Coastal Waters	39
APPENDIX I	45
Order of Reference	45
APPENDIX II	47
Index of Recommendations	
Canadian Security Guide Book 2005	47
APPENDIX III	
Index of New Recommendations	51
APPENDIX IV	55
Description of Coast Guard Cutter and Icebreakers Recommended by the	
Committee	55
APPENDIX V	59
Glossary	59
APPENDIX VI	67
Who the Committee Heard From	67
APPENDIX VII	107
Biographies of Committee Members	107
APPENDIX VIII	111
Biographies of the Committee Secretariat	111

Coasts

Problem 1:

Canada's Toothless Coast Guard

The Canadian Coast Guard has not been able to contribute to the defence of Canada's coastlines in any significant way because it lacks the mandate, the experience, the equipment, and the institutional focus to do so.

The Coast Guard does some things extremely well, but it does not guard our coasts. It has done yeoman duty tending buoys, breaking ice, enforcing fisheries regulations, and acting as a ferry service for RCMP patrols. It is not the fault of the Coast Guard that its mandate is only marginally connected to security, and much more focused on the protection of the environment, support of scientific research, facilitation of trade and commerce, navigation safety and emergency response.

The Coast Guard does not have a constabulary function, it is not armed, and it reports to the Department of Fisheries and Oceans (DFO), all of which contribute to a focus away from coastal security.

The Committee's point for several years now has been that we cannot figure out why no Canadian government has taken note of the fact that Canada's littoral waters are virtually undefended, and that the Canadian Coast Guard is ideally placed to defend them.

Some contend that because the Coast Guard is unionized it would require a significant cultural shift to turn it into a constabulary agency; union cooperation would be unlikely; and union membership would deny the Coast Guard the degree of flexibility needed to rise to the occasion when difficulties presented themselves. Unionization isn't an issue.

The Committee took testimony from the two Coast Guard unions on two occasions, and both unions endorsed the idea of a constabulary Coast Guard, subject to proper training, equipment and reasonable pay for new responsibilities. They gave their endorsements despite testimony from the Commissioner of the Coast Guard that employees would be opposed.

Canadian Security Guide Book 2007 Edition - COASTS

Why can the United States, Israel, Norway, the United Arab Emirates and many other countries put together constabulary coast guards while Canada cannot? Why, when there are such huge gaps in our coastal defences, would we not make use of an institution that plies these waters on a regular basis? Yes, the Canadian Coast Guard is badly equipped right now, and underfunded. But that does not have to be the case, if the political will is mustered to make our Coast Guard worthy of its name.

The Canadian Navy does not want this responsibility. Like most navies around the world, it sees itself as a blue water operation that fights for Canada in distant waters. It also knows it has great difficulty getting funding for the responsibilities it already has, let alone for the additional responsibility of patrolling the littoral. At any rate, Navy frigates are too expensive to provide the kind of coastal defence Canada needs. The Coast Guard could be outfitted with the kind of vessels best suited to do the job, allowing the Navy to get on with its duties elsewhere.

The key element of the government's new defence policy is Canada First. Why then, is there nothing in the planning that recognizes the basic need to defend Canada's coastlines? This policy is going to amount to a hoax if thousands of miles of Canadian coastline is left unguarded. "Canada First" sounds wonderfully patriotic and sensitive toward the needs of Canadian citizens, but without littoral defence, it will be a fraudulant attempt to pretend that the government is defending Canadians, when it isn't.

COMMITTEE'S RECOMMENDATION

• The Committee recommended that the federal government take immediate steps to transform the Canadian Coast Guard from an agency that reports to DFO to an independent agency responsible to Parliament. It should continue to carry out its duties – search and rescue, ice-breaking, navigational aids, buoy tending, boat safety, fisheries and environment protection – and take on new responsibilities for national security. On security assignments, the Coast Guard would come under the direction of Department of National Defence (DND) coastal operations centres (Trinity and Athena). (Recommended in October 2003)

2

¹ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 103). Recommendation #4.1

GOVERNMENT RESPONSE

In its August 29, 2006 response to the Committee, the Department of Fisheries and Oceans stated:

"In December 2003, the Canadian Coast Guard (CCG) became a Special Operating Agency (SOA) reporting to the Minister of Fisheries & Oceans. This change has allowed the organization to renew its emphasis on operational matters in delivering on its responsibilities as the operator of the federal government civilian fleet and other essential front line maritime services such as marine communications and navigational support services. At the same time, in order to permit a sharper focus on the enhancement of CCG's strength in the delivery of operational services to Canadians, all marine safety regulatory matters formerly with CCG were moved to Transport Canada. The Coast Guard officially became an SOA on April 01, 2005.

Over the last fours years a significant consolidated effort, under the auspices of the Interdepartmental Marine Security Working Group (IMSWG), was undertaken to clarify and strengthen accountabilities among the various federal portfolios related to marine security in Canada. IMSWG favours a collaborative, multi-agency approach to marine security, which allows each department or agency to focus on existing roles, responsibilities and leverage on existing strengths. This approach avoids potential redundancies by providing clarity on departmental roles in marine security as well as encouraging the effective and efficient use of funding to achieve federal marine security objectives through the avoidance of any duplication of efforts. Coast Guard proactively participates in the multi-agency approach through direct support to the achievement of national security objectives of its IMSWG partners.

Project funding has been provided to the security community (Canada Borders Services Agency, Transport Canada, CCG, RCMP) to co-locate with DND maritime

intelligence and operations staff in Marine Security Operations Centres (MSOCs) to bring to bear all civilian and military resources necessary to detect, assess, and respond to a marine security threat. The coastal MSOCs will be networked with the Coast Guard vessel traffic and communication systems (another integral source information for the development of maritime intelligence and the Recognized Maritime Picture). Funding has also been allocated for the establishment of an interim Great Lakes -St. Lawrence Seaway MSOC (GL-MSOC) led by the RCMP and including multi-agency (sic), including Coast Guard, participation in the development of a proposal for an ongoing GL-MSOC. An interim GL-MSOC has been established in Niagara Region (August 2005) and planning continues to develop options for the establishment of a permanent facility.

There is an inherent value in increased on-water patrols to better position the RCMP, Coast Guard and the Canadian Forces Maritime Command to intervene, interdict, and board ships that may pose threats to Canada. An increased presence project document was developed by DND and CCG resulting in funding being allocated to increase onwater patrols by the Navy and Coast Guard, as well as to enhance the Department of Fisheries and Oceans aerial surveillance program. These initiatives have been in place since October 2004.

The multi-agency approach already sees the CCG managing and operating patrol vessels with joint Royal Canadian Mounted Police (RCMP) / CCG crews in the Great Lakes - St. Lawrence Seaway system. The CCG provides its expertise in the operation of vessel at sea and fleet management, while the RCMP utilizes its constabulary powers as well as its antiterrorism and criminal code enforcement mandate to enforce Canadian law. In addition, the multi-agency approach will expand

existing co-operation between the CCG and CF in the area of maritime domain awareness and marine traffic data collection in Canadian waters and beyond. The Coast Guard is in the process of contract development for four new 30 to 35 metre patrol vessels scheduled for commissioning beginning in fiscal year 2009-10 to enhance RCMP / CCG onwater enforcement operations in the Great Lakes - St. Lawrence River region."²

CHALLENGE TO GOVERNMENT

That is an extremely long-winded way of saying that the Coast Guard is part of big happy family within the federal government that joins hands to ensure national security. In fact it amounts to no more than dividing up turf and managing various pieces of turf badly.

Take the line "There is an inherent value in increased on-water patrols to better position the RCMP, Coast Guard and the Canadian Forces Maritime Command to intervene, interdict, and board ships that may pose a threat to Canada" Of course there is. But less than a year ago, the East Coast Navy ran out of funds for the first quarter of 2007 and the Navy announced it was ceasing patrols for the rest of the fiscal year. Only after a public outcry were the patrols restored.

The above answer suggests that the Department of Fisheries and Oceans is already playing a role in the defence of Canada's coasts, and this is true. The Department hires Provincial Airways to take aerial photos and gather data through the use of AIS technology and radar to track the positioning of vessels active on our East and West coasts. Provincial Airways provides 3 fully equipped surveillance King Air 200 aircraft at an average annual utilization of 5,000 hours per year³. So far this fiscal year (2006-2007) Provincial Airways has conducted 6,400 hours of surveillance flights for the department. A mission lasts on average 5.5 hours and there are 3 to 5 missions a day. The data received during the mission is transmitted

² Department of Fisheries and Oceans, "Update to Recommendation 4.1 of the SCONSAD Report Canada's Coastlines: The Longest Under-Defended Borders in the World," (August 2006), pp.1-2

³ Provincial Airways, Aerospace and Defence, Canadian Government Relationship, available at http://www.provincialairlines.com/AMSDGovRel.htm

Canadian Security Guide Book 2007 Edition - COASTS

in near real-time (updated every 15 minutes) onto a database where all those who have access can verify if there are any "vessels of interest" off our coasts. Following a mission, it only takes up to 30 minutes after the flight has landed to disseminate this data to DFO's partners, which include the Department of National Defence⁴.

The problem is, if there are any "vessels of interest" that need to be physically checked out, who gets the call? The Coast Guard? No – it has no constabulary powers, though it may be needed to taxi the RCMP out to the vessel in question. The RCMP? Yes – although it is so understaffed that in Nova Scotia, for example, it only has 13 officers to police 7,400 kilometres of coastline.⁵

Undefended Coasts and Great Lakes

Resources that *could* be used to defend our country remain underutilized and the resources that *are* used to defend our country remain inappropriately utilized. The Coast Guard – which really could play a useful role in guarding coasts if it were properly outfitted and given a constabulary mandate – instead spends 99 percent of its time doing other things.

The Coast Guard should be moved from Fisheries into the portfolio of Public Safety and Emergency Preparedness Canada. It should remain a separate operating agency within PSEPC. Its mandate should be focussed much more on security, its employees should be trained and equipped, and it should be provided with the kinds of vessels and other equipment needed to perform interdiction in Canada's littoral waters and carry on its existing duties of search and rescue, icebreaking, navigation aides, etc.

New Vessels Needed

What kind of vessels would the Coast Guard need to do this?

On June 2, 2003, Mr. John Dewar, a retired Canadian Navy Captain, testified before the Committee⁶. He said that Canada should purchase a corvette-sized ship,

⁴ Correspondence between researcher and Department of Fisheries and Oceans Staff Officer.

⁵ Ian Atkins, *Proceedings of the Standing Senate Committee on National Security and Defence*, Hearing Transcript, September 22, 2003, Issue 22, 37th Parl., 2nd Sess., http://www.parl.gc.ca/37/2/parlbus/commbus/senate/Comedefe-e/22evb-e.htm?Language=E&Parl=37&Ses=2&commid=76 (accessed May 8, 2004).

⁶ (N) Captain (ret) John Dewar appeared before the Committee as an individual on June 2, 2003 and also on June 13, 2005.

also called a 'cutter,' for use by the navy in the performance of law enforcement functions.

He recommended a vessel measuring 75 meters that was able to operate in a high sea-state, move quickly (25 knots minimum using diesel propulsion), and remain at sea for 30 days. He said that a landing deck or hanger for a large maritime helicopter like the Sea King is essential. A helicopter would assist in the identification of ships and extend the visible range from the vessel. Typically, sailors can see 6-10 nautical miles from their ship, but most maritime helicopters have a range of 150 nautical miles.

Comparison with Canadian Coast Guard cutters

Canadian Coast Guard cutters do not currently meet the criteria outlined by Mr. Dewar. The Canadian cutters, the Gordon Reid and the Tanu, are not as fast or as large. The Gordon Reid (age 17) is 50 meters long and has a top speed of 16.5 knots, while the Tanu (age 39) is 50.1 meters long and has a top speed of 13.5 knots.

Other Coast Guard cutters, the Sir Wilfred Grenfell (age 20), Leonard J. Cowley (age 23), and Cape Roger (age 30) are large enough, but are too slow. The Sir Wilfred Grenfell is 68.5 meters long and has a maximum speed of 16 knots, the Leonard J. Cowley is 72 meters long and has a maximum speed of 15 knots, and the Cape Roger is 62.5 meters long and has a top speed of 17 knots.

In addition, of the Coast Guard's five multi-task cutters larger than 50 meters, two (the Cape Roger and Tanu) are both over 25 years old. The Tanu was modernized 20 years ago and the Cape Roger was modernized 11 years ago, however, they are still not outfitted with constabulary equipment and will eventually have to be replaced. The remainder of the fleet should be replaced shortly thereafter or they should at least be modified to carry weapons during their mid-life re-fit.

How much would this cost?

Estimates are that the vessel would cost CDN \$ 55-100 million per unit. Since it would be used for law enforcement, commercial construction and procurement practices could be adopted to lower the per unit price. Civilian sources could be relied upon for service support throughout the life of the vessel, further reducing the cost.

Canadian Security Guide Book 2007 Edition - COASTS

The main factor in the vessel's cost would be the sophistication and density of its radar, sensors, communications equipment and weapon systems. These components would cost significantly less for this type of ship than they would for a frigate or destroyer. There is a wide variation in the types of sensors and radars.

Keeping the size of the cutter roughly as specified is important because the vessel needs good sea-keeping ability⁷. The size of a ship is not directly proportional to its cost. The ship's physical dimensions are a small part of its total cost, but they have a significant impact on performance. Mr. Dewar testified before the Committee that the cutter should be around 75 metres long in order to conduct boardings and have the desired sea-keeping capability.

We believe these cutters would possess the capabilities needed for law enforcement in our littoral waters, which include:

- (1) The ability to operate in high sea states
- (2) A high maximum speed for positioning and pursuit
- (3) High endurance to maximize deployment time
- (4) The ability to operate a large helicopter (e.g. CH124)
- (5) The ability to transport and deploy boarding parties
- (6) Ice tolerance (first year ice)
- (7) Sophisticated sensors (e.g., radar, ESM, electro-optic, sonar)
- (8) The ability to participate in network-centric command and control regimes
- (9) Sophisticated communications capability
- (10) Armament commensurate with enforcement functions (e.g., small arms, machine guns (e.g., 50 Cal), medium calibre weapon (e.g., 57mm or 76mm) and close-in self-defence weapon system (e.g., Phalanx).

The Committee suggests that eight of these vessels – manned by approximately 100 personnel, and costing about one third of what Navy frigates cost – should be deployed on each of the East and West coasts.⁸

-

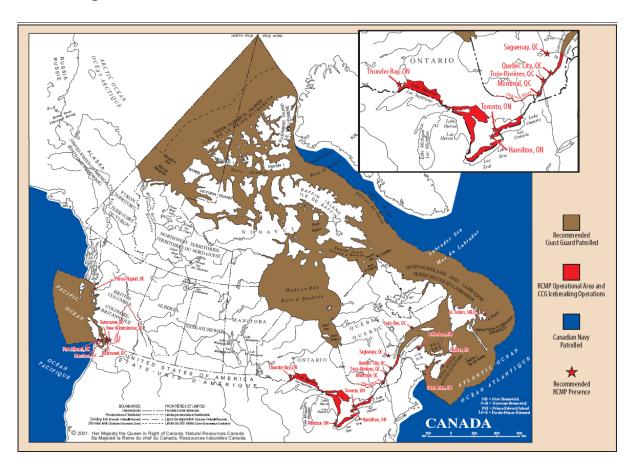
⁷ Sea-keeping ability: the ability of ship to ride comfortably in rough seas.

⁸ The government should also consider an alternative vessel being developed by the U.S. Coast Guard. For a description of this vessel, please see Appendix V.

Why can't the Navy do this job?

The Navy doesn't to have the right vessels to do the job. Frigates are too big to waste on littoral patrols, and too expensive to operate. The Navy's coastal patrol vessels (MCDVs) have poor sea-keeping capabilities and are too slow (15.5 knots is the maximum speed). Crews become seasick when these vessels are stationed off the Grand Banks for more than a few hours. They are also too slow. Essentially, these are training vessels. They are not up to protecting Canada's coasts.

The Navy *could* do the job if given new vessels, but if the Navy were given new vessels it would undoubtedly be at the expense of the frigates and destroyers it needs to operate overseas.



Map of Areas of Responsibility of the RCMP (Red), the Coast Guard (Brown) and the Canadian Navy (Blue)

Canadian Security Guide Book 2007 Edition - COASTS

What about icebreaking in the Arctic?

The current government seems to be determined to get the Canadian Navy involved in icebreaking in Arctic waters. The Committee believes that this would be a strange application of the Navy's mandate, given that Canada's northern sovereignty is not being threatened by invading navies. Sovereignty in the North is not going to be defended by force – can anyone imagine Canadian guns firing on U.S. or British vessels going through the Northwest Passage?

It would also be a strange application of resources – the Navy has not broken ice anywhere for half a century. Nobody in the Navy has any experience doing this. Part of the Canadian Coast Guard's mandate, however, is icebreaking, so why would the Coast Guard not continue to play this role in the Arctic? If the government wants to give other countries the impression that it has placed "muscle" behind Canada's sovereign claim to Arctic waters, an armed Coast Guard would be a much more efficient way of accomplishing that end than twisting the Navy out of shape.

Bottom Line:

The icebreakers and buoy-tenders now being used should be armed over the next three years. Many are already helicopter-equipped, or at least capable of carrying helicopters. The newer ones should be modified to play a constabulary role during their mid-life refits. New Coast Guard vessels coming on line should be built to play a constabulary role.

The Canadian Coast Guard is an under-utilized institution. Putting it to good use would not only improve the defence of Canada's coasts immeasurably, it would also give Canadians the added value for the assets they are paying for. The Auditor General of Canada severely criticized the Canadian Coast Guard recently, saying it is badly in need of resuscitation. Giving the Coast Guard a new role to play would help inject new life into an institution that is largely being wasted through neglect.

NEW RECOMMENDATIONS

- C1. The Committee recommends that the Government of Canada procure three, year-round, class 10 icebreakers with constabulary powers for Canadian Coast Guard presence in our Arctic waters.
- C2. The Committee recommends that the Government of Canada procure eight Canadian Coast Guard cutters to be deployed on our East and West coasts with these specifications:
 - 1. The ability to operate in high sea states;
 - 2. A high maximum speed for positioning and pursuit;
 - 3. High endurance to maximize deployment time;
 - 4. The ability to operate a large helicopter (e.g. CH124);
 - 5. The ability to transport and deploy boarding parties;
 - 6. Ice tolerance (first year ice);
 - 7. Sophisticated sensors (e.g., radar, ESM, electro-optic, sonar);
 - 8. The ability to participate in network-centric command and control regimes;
 - 9. Sophisticated communications capability;
 - 10. Armament commensurate with enforcement functions (e.g., small arms, machine guns (e.g., 50 Cal), medium calibre weapon (e.g., 57mm or 76mm) and close-in self-defence weapon system (e.g., Phalanx).

Problem 2:

Too Many Holes to Fill Without a Plan

Canada's security perimeter features thousands of kilometres of coastline and hundreds of harbours that for the most part go unwatched. Aurora maritime aircraft patrols occur on an infrequent, ad hoc basis. In addition, the Aurora is currently in the midst of the Aurora Incremental Modernatization Project (AIMP), which started in 1998 and won't be finished until 2010. So far, it has gone through three out of four modernization phases (called "Blocks") and we urge the Government of Canada to follow through on this commitment.

Canada's lack of maritime domain awareness makes it easier for organized crime to traffic contraband, makes it harder for officials to separate commercial and pleasure vessels from legitimate threats, and makes it especially difficult for Canada to assert its sovereignty claims over remote areas, like the Arctic.

COMMITTEE'S RECOMMENDATION

• The Committee recommended that the issue of the security of Canada's coastline be examined, and a plan developed to broaden and tighten its security. (Recommended in February 2002)

GOVERNMENT RESPONSE

In its July 7, 2006 response, Transport Canada stated:

"The government's April 2004 National Security Policy outlines a six-point plan for strengthening marine (including coastal) security. They include:

- Clarifying responsibility for coastal defence;
- Establishing Marine Security Operations Centres;
- Increasing coastal patrols;

⁹ February 2002 - Canadian Security and Military Preparedness, (page 116). Recommendation #10

- Improving inter-fleet communications;
- Collaborating more closely with the United States; and
- Securing the St. Lawrence Seaway.

Transport Canada (TC) has the lead in coordinating Marine Security Policy and works closely with various federal agencies. Since 2001, \$930 million has been committed to improve marine security.

Transport Canada offers concrete evidence of the high priority it places on marine security initiative. For example, development and negotiation of the International Ship and Port Facility Security (ISPS) Code in December 2002 was immediately followed by implementation in Canada via the *Marine Transportation Security Regulations* (MTSR), effective 1 July 2004. Transport Canada completed this task on time with the full cooperation of the marine industry. Indeed, since many of the initiatives identified to enhance marine security have major impacts on Canadians and Canadian business, the government has an obligation to ensure appropriate consultation, planning, and careful implementation.

The government established Marine Security Operations Centres (MSOCs) on both the east and west coasts. The coastal MSOCs' are intended to provide secure physical locations where regional representatives from federal departments and agencies [get] together to collect and analyze departmental marine information to assess threats and coordinate response activities. While continuing to work for their respective departments and agencies, MSOC personnel use the collaborative work environment to enhance their information sharing and analysis capability as well as responding more effectively to a marine security incident or threat that affects Canadians or Canada's national interests. A similar program for the Great Lakes/St. Lawrence Seaway (GL/SLS) aimed at improving

security efforts and domain awareness in this area has also been implemented on an interim basis.

The government has also enhanced Department of Fisheries and Oceans (DFO) air surveillance flights over coastal waters, and implemented a 96-hour prearrival vessel report that is screened by TC security experts. Appropriate control decisions are then taken to allow or refuse entry into Canadian waters. Two initiatives are in development: the Canadian Coast Guard (CCG) has undertaken a project (completion scheduled for 2008) to build shore stations to pick up information signals from Automatic Identification System (AIS) transponders required to be carried by vessels on international voyages (its by weight), and the Department of National Defence is in the planning stage to locate High Frequency Surface Wave Radar (HFSWR) stations on the East and West Coasts.

TC and CCG are also working with international partners to develop a Long-range Vessel Identification and Tracking system using satellite telephones.

Furthermore, in 2005 the government has strengthened its regulatory oversight capacity by dedicating more resources to the inspection and monitoring of the MTSR. This will provide additional opportunities for ISPS Code enforcement activities and further harmonize regulations and practices as requirements continue to evolve, particularly with the US Coast Guard and other partners.

Finally, the government will modify Canadian Patrol Frigates to accommodate RCMP Emergency Response Team boats. This will allow the enhanced integration of onwater coordination and response operations on Canada's coasts, and will commence in 2007 (funding begins FY 2007-2008).

The Royal Canadian Mounted Police (RCMP) and the Canadian Coast Guard (CCG), coordinating their efforts, resources and expertise, initiated joint marine security and law enforcement patrols along the Great Lakes and St. Lawrence River. This will provide RCMP officers with the capacity to better disrupt and eliminate the activities of organized crime groups and to enhance national security along the Great Lakes and St. Lawrence River. The initiative also includes the participation and cooperation of provincial and municipal police forces."¹⁰

CHALLENGE TO GOVERNMENT

Let us take a look at several components contained in this response.

- 1. (Paragraph 3) "Since 2001, \$930 million has been committed to improve marine security." Commitments are always a nice starting point, but, in themselves, they mean absolutely nothing. What the public needs to know is how much has actually been spent to improve Canada's marine security. There is no indication of that here.
- 2. (Paragraph 4) "... Since many of the initatives identified to enhance marine security have major impacts on Canadians and Canadian businesses, the government has an obligation to ensure appropriate consultation, planning and careful implementation." The Committee is not against consultation. But Transport Canada's repeated reminders that better security must not be allowed to interfere with commerce also reminds us that this is a department designed to improve commercial efficiency, not safeguard our society and our economy.
- 3. (Paragraph 5) "The government established Marine Security Operations Centres on both the east and west coasts." As described in this response, these centres are supposed to be occupied by people from various departments and agencies responsible for marine security. But when the Committee visited the Esquimalt facility on the West Coast, we discovered that most of the people

15

¹⁰ Transport Canada, "Response to Committee Recommendations," (July 7, 2006), pp.15-16.

occupying the seats in the facility had never been in the building before – they had been gathered in haste to try to demonstrate that the Centre was operational.

- 4. (Paragraph 5 again) "A similar program for the Great Lakes/St. Lawrence Seaway (GS/SLS) aimed at improving security efforts and domain awareness in this area has also been implemented on an interim basis." A permanent centre is supposed to be set up in Hamilton. This program is currently being run out of Trinity, Nova Scotia, on the East Coast. But what data is coming in that can be analyzed for security purposes? What regular patrols are being conducted on the Great Lakes? None except for a few weeks of trials. So of what use will this centre be? Security on the Great Lakes is currently left to local police forces that have a few boats to deal with the problems of pleasure boaters. These local forces are not trained to defend our country's coastlines.
- 5. (Paragraph 6 again) "... a 96-hour pre-vessel report [is] screened by TC security experts. Appropriate control decisions are then taken to allow or refuse entry into Canadian waters." First, what experts does Transport Canada actually have? Second, only vessels of more than 100 gross tonnes are required to file a 96-hour warning of arrival. It doesn't take a vessel anywhere near that large to carry a dirty bomb. Third, how do we "allow or refuse entry" when we have only a few RCMP officers on Coast Guard vessels patrolling thousands of miles of coastline?
- 6. (Paragraph 7) "TC and CCG are also working with international partners to develop a long-range Vessel Identification and Tracking System using satellite telephones." This might be good. What funding has been set aside for this? What progress has been made? When can we expect a system to be in operation, and what will it accomplish?
- 7. (Paragraph 8) "In 2005 the government has (sic) strenthened its regulatory oversight capacity by dedicating more resources to the inspection and monitoring of the MTSR." What resources? 2005 was two years ago. What was accomplished?
- 8. (Last paragraph) "The Royal Canadian Mounted Police (RCMP) and the Canadian Coast Guard (CCG) coordinating their efforts, resources and expertise, initiated joint security and law enforcement patrols along the Great Lakes and St. Lawrence River." Three vessels manned by 14 people to monitor

the Great Lakes! The territorial waters on Canada's side of the Great Lakes take up a lot of space – about 92, 200 square kilometers, 11 52 weeks a year. This amounts to a spit in the ocean when we talk about genuine security on the Great Lakes.

The government takes an inordinate pride at having implemented the provision of the International Ship and Port Facility Security Code (ISPS). The problem with that code is that it simply calls for martime nations to develop a plan to protect ports — not develop a good plan. ISPS is essentially the lowest common denominator solution that participating countries could come up with. The government has a duty to Canadians to come up with a much more effective plan, based on a vision for what is needed to defend our coastlines.

No Vision, No Action, No Canada First

There is no vision here – no sense that Canada needs a sizable combination of people and resources from the Navy, Coast Guard, RCMP and local police forces acting in coordination to surveille and defend our perimeter. Nobody is sitting down and articulating what kind of layered approach Canada really needs to defend its coasts.

Even if all the vague descriptions contained in Transport Canada's response could be traced to real and meaningful activities — which is doubtful given the department's history on this case — they would amount to a piecemeal approach to a serious, holistic problem. Canada's perimeter cannot be defended with a series of dots, some of them all but invisible. The dots have to be real, and they have to be connected.

¹¹ Government of Canada, Environment and Resources, "The Great Lakes" Accessed March 2007, available at http://www.environmentandresources.gc.ca/default.asp?lang=En&n=ADFA4936-1

Problem 3:

Inadequate Coastal Radar

Surveillance of the waters off Canada's coasts has been patchy. The Government lacks a clear picture of what is going on in Canada's territorial waters. The lack of a real time electronic picture makes it difficult for officials to distinguish between legitimate vessels and those that might be threats.

COMMITTEE'S RECOMMENDATION

 The Committee recommended that at least eight and possibly more High Frequency Surface Wave Radar (HFSWR) sites be installed to monitor areas of heavy traffic on Canada's coasts, plus other coastal sites that terrorists might target as alternates to high-traffic ports.¹² (Recommended in October 2003)

GOVERNMENT RESPONSE

In its August 14, 2006 response to the Committee, the Department of National Defence (DND) stated:

"This project was initiated as a response to the requirement for a persistent, wide-area active sensor, which had greater range than available coastal radars. It was envisaged that this project would leverage upon a separate, but associated, naval initiative, that saw the two existing experimental High Frequency Surface Wave Radar (HFSWR) sites on the Atlantic coast upgraded to operational status.

¹² October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 57). Recommendation #2.1

Although these sites are now operating, during the transition from experimental to operational licenses, a frequency management issue was identified by Industry Canada. This will affect the current and any future configuration of these radars. It is essential that any future HFSWR system be compliant with the established Industry Canada frequency management criteria and that the radar's performance meet the operational requirement. Staff deliberations are ongoing to fully ascertain the frequency management ramifications, and to assess whether Industry Canada's frequency management criteria and operational requirements are reconcilable. Additionally, efforts will continue to develop alternate uses for this technology, as well as to identify alternatives to meet the persistent widearea active sensor maritime security requirement."¹³

CHALLENGE TO GOVERNMENT

It seemed almost too good to be true – that the Department of National Defence had come up with an exciting new surveillance system that nobody else had thought of that would be just the thing to help provide a real-time picture of shipping off Canada's coasts. It turns out that it *was* too good to be true – at least that's how DND explains the shelving of the program in September 2006 after receiving one complaint that HFSWR was interfering with a frequency allotted by the International Telecommunications Union. Apparently there was another important factor that contributed to the decision: the system didn't work very well unless the weather was perfect, which isn't a situation that Canada's East Coast is known for.

According to Commander Steve Peters, former project director of HFSWR, the radar system "is not very capable against low-flying aircraft and is very susceptible to atmospherics and the environment. Some days, when the ionosphere and wind conditions and many other factors are just right, there can be 200 miles of detection. But on many days, that is not the case." Apparently there is still faint

¹³ Department of National Defence, "2006 Update on SCONSAD Recommendations," August 14, 2006, p.5.

¹⁴ Sharon Hobson, "Canada cancels HFSWR radar in spending cuts," *Jane's Defense Weekly*, (October 4, 2006) p.46

Canadian Security Guide Book 2007 Edition - COASTS

hope – although the two HFSWR sites on the East Coast were never made operational as planned, they remain as research bases under the Assistant Deputy Minister for Science and Technology at DND.

If High Frequency Surface Wave Radar is not the answer to tracking ships, other methodology should be put in place, quickly. The Committee keeps being told by DND officials that satellite technology is too expensive, but other countries use it, particularly the United States.

How expensive is too expensive? That depends on how important you think it is that Canada have as clear a picture as possible as to what is approaching our security perimeter so threats can be dealt with. The Committee believes that having that clear, real-time picture of our littoral waters is essential to the defence of the country. Period.

Under the circumstances, we will withdraw our earlier recommendation¹⁵, and replace it with the following:

NEW RECOMMENDATION

C3. The Committee recommends that the Government of Canada put in place by 2010 a satellite system, or a satellite system supported by UAVs, that will give Canadian defensive forces a clear, real-time picture of shipping activity on our East, West and Arctic Coasts and our Great Lakes and St-Lawrence Seaway.

¹⁵ The Committee withdraws the following recommendation: "The Committee recommends that at least eight and possibly more High Frequency Surface Wave Radar (HFSWR) sites be installed to monitor areas of heavy traffic on Canada's coasts, plus other coastal sites that terrorists might target as alternates to high-traffic ports" from October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 57). Recommendation #2.1

Problem 4:

Inadequate Short-Range Coastal Patrols

Canada's perimeter includes thousands of kilometres of coastline that have never been adequately patrolled from the sky. The Canadian Forces have had to squeeze the number of flying hours for Aurora patrol aircraft. Neither the Navy nor the Canadian Coast Guard have had adequate resources to maintain an effective surveillance framework on our maritime approaches.

COMMITTEE'S RECOMMENDATION

The Committee made the following recommendation to try to improve this situation in October 2003:

 The Committee recommended that tactical drones (Unmanned Aerial Vehicles – UAVs) be introduced as surveillance aids on both coasts.¹⁶ (Recommended in October 2003)

GOVERNMENT RESPONSE

In its August 14, 2006 response to the Committee, the Department of National Defence briefly explained the different types of UAVs and their functions¹⁷:

"The Canadian Forces classifies Uninhabited Aerial Vehicles (UAVs) in three tiers. Tier One includes High and Medium Altitude Long Endurance (HALE and MALE UAVs), which are employed at the strategic and operational levels and would be fully capable of conducting domestic surveillance missions given the distances/ranges/weather conditions prevalent in a Canadian context. Tier Two UAVs are tactical UAVs (Sperwer for example), which are employed to support the tactical level of operations (Army Brigade and Naval Task Group). Tier Three UAVs are Small and Mini UAVs, which are employed to support operations at the battalion, company and individual ship levels." 18

¹⁶ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 57). Recommendation #2.2

¹⁷ It should be noted that the Canadian UAV Tier system is different than the US Tier system. The Canadian system has Tier One as the biggest UAV while Tier Three is the smallest; in the American system, this is the opposite. More information available at http://en.wikipedia.org/wiki/Unmanned_aerial_vehicle#U.S. http://en.wikipedia.org/wiki/Unmanned_aerial_vehicle#U.S. LAV_tier_system

¹⁸ Department of National Defence, "2006 Update on SCONSAD Recommendations," August 14, 2006, p.5.

CHALLENGE TO GOVERNMENT

The Committee believes that Uninhabited Aerial Vehicles are crucial when it comes to the surveillance of our coasts. A significant advantage of UAVs over satellites is their capability to loiter over a particular area, and cover a specific location for an extended time period¹⁹. UAVs would not only significantly enhance our ability to detect threats close to our shores but would also enhance our search and rescue capabilities.

The High and Medium Altitude Long Endurance (HALE-MALE) UAVs have multiple capabilities for communication, intelligence, surveillance and reconnaissance. HALE UAVs perform best when rapidly covering a very large area and are sufficient for general intelligence gathering²⁰. MALE UAVs, since they cruise at a lower altitude, can transmit more detailed images and can evade most adverse weather conditions²¹.

Although the Tier 2 drones, the tactical UAVs, require relatively calm weather for takeoff and landing and are adversely affected by turbulence, they can be operated at various altitudes, with different sensors, from diverse locations. This flexibility could improve mission success and overall system availability²². These short-range tactical systems can utilize low-cost day and night sensors²³ and should continue to be used by our navy task groups as a sensor range extender – helping keep track of the vessels off our coasts.

So now that we've explained what UAVs do and we also know that the Americans, Indians, French, Germans and Israelis have a multitude of them²⁴, where is Canada in all of this?

22

¹⁹ Defense Update: International Online Defense Magazine, "Persistent UAV Platforms" 2005, issue 2, p. 2, available at http://www.defense-update.com/features/du-2-05/uav-2.htm

²⁰ Defense Update: International Online Defense Magazine, "Persistent UAV Platforms" 2005, issue 2, p. 3, available at http://www.defense-update.com/features/du-2-05/uav-3.htm

²¹ Defense Update: International Online Defense Magazine, "Persistent UAV Platforms" 2005, issue 2, p. 4, available at http://www.defense-update.com/features/du-2-05/uav-4.htm

²² Defense Update: International Online Defense Magazine, "Persistent UAV Platforms" 2005, issue 2, p. 6, available at http://www.defense-update.com/features/du-2-05/uav-6.htm

²³ Defense Update: International Online Defense Magazine, "Persistent UAV Platforms" 2005, issue 2, p. 6, available at http://www.defense-update.com/features/du-2-05/uav-6.htm

²⁴ Defense Update: International Online Defense Magazine, "Unmanned Systems Topics" 2006-2007, available at http://www.defense-update.com/topics/topics-uvs.htm

Problem 5:

Dearth of Long-Range Patrols on Three Coasts

Canada has a responsibility over vast and remote, areas of land and ocean off both coasts and in the north. The government has a duty to monitor and enforce Canada's laws and treaty commitments in those areas. Unfortunately the government does not have the resources – either in terms of Coast Guard vessels or Aurora aircraft – to conduct patrols of these areas on a regular basis.

Long endurance drones should become part of our standard kit in patrolling the coasts until we have satellites there. We may still want them to supplement the satellites. We now believe that the long endurance drones are the most sensible short-term solution in both cases, as a bridge to satellite surveillance down the road.

COMMITTEE'S RECOMMENDATION

• The Committee recommended that the government conduct a study to ascertain whether the use of higher-cost strategic drones should be introduced into Canada's surveillance matrix in the Arctic, as well as the east and west coasts. (Recommended in October 2003)

GOVERNMENT RESPONSE

In its August 14, 2006 response to the Committee, the Department of National Defence stated:

"The Canadian Forces Experimentation Centre (CFEC) investigated the use of UAVs in domestic operations, including the surveillance of Canada's coastal approaches, for a three-year period (2001-2004) during a series of major experimentation events. Experimental flights, taking place over arctic terrain, over the Pacific Ocean west of Vancouver Island, the Gulf of St-Lawrence, Canadian

²⁵ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 57). Recommendation #2.3

Forces Base Gagetown, Canadian Forces Base Suffield and the Grand Banks area, were designed to provide answers regarding the beyond-line-of-sight operation of MALE UAVs.

Significant progress has taken place in the Department's understanding of beyond-line-of-sight UAV operations and the procedures and processes that could lead to increased force effectiveness by using network-enabled operations.

The Canadian Forces (CF) continues to experiment with and consider the use of UAVs for surveillance. The Air Force is currently developing a future Medium Altitude Long Endurance (MALE) UAV Surveillance and Target Acquisition System Project (JUSTAS). DND and the CF continue to develop and experiment with this capability."²⁶

CHALLENGE TO GOVERNMENT

A good start. We recommended that DND study the use of these drones, and it did.

Now DND should get on to using the drones, on the way to a satellite surveillance system. One way or the other, we can't keep crossing our fingers and hoping that nobody takes advantage of the huge gaps in Canada's coastal surveillance.

NEW RECOMMENDATION

C4. The Committee recommends that the Government of Canada acquire sufficient Tier 1 UAVs to provide real-time maritime pictures of the Arctic, our East and West coasts as well as our Great Lakes and St-Lawrence Seaway until full satellite coverage is in place.

²⁶ DND, "2006 Update on SCONSAD Recommendations," August 14, 2006, p. 5.

Problem 6:

Lack of Coastal Warnings Network

For the most part Canadian officials are forced to rely on ocean carriers and freight forwarders to acquire information about the goods and people coming to Canada.²⁷ Ships travel the world's oceans with little monitoring or oversight from countries where they dock. While like-minded nations say they are worried about global maritime security, they rarely take the kind of unified action that would strengthen their control over infiltrators.

COMMITTEE'S RECOMMENDATION

The Committee recommended that Canada negotiate reciprocal arrangements with other Maritime nations to provide each other with advance information on vessels, crews, and cargo, including indicators of which cargo items they have already inspected and in what ways.²⁸ (Recommended in October 2003)

GOVERNMENT RESPONSE

In its response of July 7, 2006, Transport Canada stated:

"The government has reached numerous cooperation agreements with the U.S. government since the Committee's recommendation, including:

- The creation of the military-to-military Bi-national Planning Group to address issues of maritime, land and civil defence coordination and contingency planning;
- The screening of shipping containers by operating joint customs teams at major ports;

Canadian officials will continue to rely on shippers even after International Ship and Port Security Code provisions that require more detailed reporting come into effect in 2004.
 September 2002 - Defence of North America: A Canadian Responsibility, #4

²⁸ September 2002 - Defence of North America: A Canadian Responsibility, #4 October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 147). Recommendation #6.3

- The pre-screening of ships at the port of Montreal before they arrive in the Great Lakes/St. Lawrence Seaway system; and
- TC and the U.S. Coast Guard have been working closely to coordinate and harmonize the marine security regimes so that Canadian-flagged ships that meet Canadian security requirements can enter U.S. harbours and U.S.flagged vessels that comply with American requirements can enter Canadian ports.

Enhanced Canada-U.S. military collaboration has improved maritime domain awareness and warning through the Binational Planning Group. The NORAD renewal adds « Maritime Warning for North America » as a NORAD primary mission. Maritime warning is detailed in Article I - NORAD Missions, however maritime surveillance and control shall continue to be exercised by national commands, and as appropriate, coordinated bilaterally.

Marine security is coordinated with the U.S. through a variety of fora and is linked into the bi-national planning group discussions. Members of the Interdepartmental Marine Security Working Group also are involved in Bi-National Planning Group discussions.

Canada and the U.S. have established Integrated Border Enforcement Teams (IBETs) at 15 geographic locations across the border to jointly investigate cross-border criminal and terrorist activity. Canada and U.S. law enforcement intelligence officers from Integrated Border Enforcement Teams are co-located at two locations in Canada and two locations in the U.S. to share intelligence on a daily basis. Of these, the Pacific Corridor and Red River IBETs, and the Central St. Lawrence Valley and Windsor-Detroit IBETs were up and running by March 2005.

Under the 2001 Canada-U.S. Smart Border Declaration 30-Point Action Plan (Item #18), the US CBP and CBSA launched the In-Transit Container Targeting at Seaports initiative to jointly target, through an exchange of information and personnel, high-risk in-transit marine containers at the first point of arrival in Canada or the U.S. These actions include the exchange of a limited number of Canadian and U.S. unarmed customs officers in the targeting offices at the ports of Vancouver, Montréal, Halifax, Seattle-Tacoma, and Newark to target marine containers destined for either country at their first port of arrival in North America.

Under the Container Security Initiative (CSI) reciprocal agreements of principles will be negotiated with other maritime nations. Canadian customs officers will pre-screen and target containers, destined for Canada, arriving at U.S. ports and U.S. customs officers will target containers arriving in Canada destined for the United States, thereby eliminating the need to re-examine the containers at the shared border. The host nation's customs officers will examine targeted containers at the port of first arrival. Examination will include the use of contraband detection equipment and automated targeting techniques. Targeting officers will have access to their respective databanks while working in the other country. The In-Transit Container Targeting Initiative is considered the predecessor of, and pilot for, the CSI program.

The National Security Policy states that the government intends to work with our international partners bilaterally and through multilateral forums to enhance security. The strategy used by Canada and our major trading partners, including the U.S., the U.K., and Japan, is to develop a multilateral framework to confirm the application of international security standards and then to work bi-laterally with countries that do not meet those standards. For example, to

date the governments of Canada and the U.S. have entered into a bilateral agreement which addresses the manner of implementation of amendments to the International Convention of the Safety of Life at Sea, 1974 (SOLAS) and its complementary International Ship and Port Facility (ISPS) Code, as well as U.S. and Canadian maritime security laws and regulations.

As of 1 July 2004, TC and the U.S. Coast Guard agreed to conduct a joint initial verification pilot on foreign vessels entering the Seaway system for ISPS compliance. This agreement was extended for the 2005 Seaway shipping season and beyond. In addition, TC and U.S. Coast Guard officials meet biannually to discuss operational issues and to share experiences and solutions, as well as to discuss possible future initiatives such as joint training exercises. TC has worked closely with the U.S. Coast Guard to harmonize as much as possible the security regimes being applied to ports and ships within the two countries.

The government stated in the April 2004 National Security Policy that it is pursuing negotiations on the next phase of the Smart Borders Action Plan with the governments of the U.S. and Mexico. In March 2005, the leaders of Canada, Mexico, and the United States, announced the establishment of the Security and Prosperity Partnership (SPP) of North America. The SPP will establish a common approach to security to protect North America from external threats, prevent and respond to threats within North America, and further streamline the secure and efficient movement of legitimate, low-risk traffic across our shared borders, including:

- Implement common border security and bio-protection strategies;
- Enhance critical infrastructure protection, and implement a common approach to emergency response;

- Implement improvements in aviation and maritime security, combat trans-national threats, and enhance intelligence partnerships; and
- Implement a border facilitation strategy to build capacity and improve the legitimate flow of people and cargo at our shared borders.

TC is also actively engaged in marine security groups under APEC, G8, and OAS, and participates in the North Pacific Heads of Coast Guard Agencies (NPHCGA) Security Working Group, which is working on a seven-point plan that includes enhancing maritime domain awareness, personnel exchange, and developing contingency plans for suspect vessels.

In addition, TC participates in various IMO Committees and working groups, such as the Maritime Safety Committee and its Maritime Security Working Group. These meetings serve as a forum to develop international maritime security legal instruments, which in turn provides signatory countries with a framework to develop the appropriate domestic regulatory framework to implement these instruments in Canadian law. Good examples of such instruments are the ISPS Code, and the necessary amendments to SOLAS. The IMO also serves as an important discussion forum to share best practices, and develop guidance material and implementation strategies."²⁹

CHALLENGE TO GOVERNMENT

What About The Rest Of The World?

Partnering with the U.S. in the Container Security Initiative is a good start. But Canada needs agreements with the countries that ship a lot of goods to our shores to ensure we know exactly who and what is coming at us. The response above

²⁹ Transport Canada, "Response to Committee Recommendations," (July 7, 2006), pp. 19-21.

Canadian Security Guide Book 2007 Edition - COASTS

contains a lot of filler, but few details about what Canada has accomplished in reaching agreements with countries *other* than the United States.

With regards to the Bi-national Planning Group (BPG) mentioned in the government's response, the Committee acknowledges the creation of the BPG in 2002. What the government fails to say here, however, is that the BPG was dissolved in the Spring of 2006. The fact that the BPG released a report entitled "Bi-National Planning Group: The Final Report on Canada and the United States Enhanced Military Cooperation" on March 13, 2006 shows that its mandate was ending. What is being done with the BPG's findings and final recommendations? Whose responsibility is it to ensure that Canada-U.S. military-to-military coordination and contingency planning continues?

In paragraph 7 of the government's response, it states that "under the Container Security Initiative (CSI) reciprocal agreements of principles will be negotiated with other maritime nations." That's fine, but when? Which countries are we negotiating with, and what kind of progress is being made? Or are negotiations not even underway, as the use of the future tense here suggests.

Canada has inspectors embedded in Newark and Tacoma, but nowhere else. Do we really think the main threat to our security is likely to be mounted from the United States? Are the Fenians on the march again?

Canada doesn't need inspectors posted at seaports around the world. But it does need agreements with other countries that will assure that those ports have reliable inspection facilities in place, and that they will undertake inspections on our behalf when we have reason to believe that a vessel may be carrying persons or goods that we do not want entering our ports.

Problem 7:

Lack of Great Lakes Surveillance

In terms of security, the Great Lakes are Canada's soft underbelly. There has been some degree of bilateral cooperation to secure the Canada-U.S. border at airports and border crossings, but virtually no such cooperation at the federal level on the Great Lakes. With the exception of the "Shiprider" pilot project, which comprised of joint patrols between the RCMP and U.S. Coast Guard. But it was only a two-week pilot project that began and ended in September 2005.³⁰

One of the problems is that Canadian and American politicians alike are hestitant to suggest security improvements that might annoy the tens of thousands of pleasure boaters who ply the Great Lakes every summer. Boaters vote, and boaters love the sense of freedom that begins to pulse when they untie their vessel and push off from the dock. However, safety is important to them, they take their families with them. If they can afford a vessel, they should be able to afford the equipment necessary to ensure their safety. We don't charge for Search and Rescue services, so shouldn't people make it their job to at least make sure they can be found?

Installing transponders on cabin cruisers and other large pleasure craft is not a high price to pay for increased safety and security on the Great Lakes. Electronic technology is so much cheaper and so much more sophisticated these days that there should be no excuse in making it work for us wherever security can be enhanced without endangering the privacy of law-abiding citizens.

The Global Positioning System (GPS) is allowing ordinary hikers to know where they are at any given moment. Simple and inexpensive GPS is now guiding many Canadian drivers through city streets. Why not equip all boats bigger than ordinary motorboats with transponders?

Transponders would accomplish two ends: enhancing their owner's safety and making our waters more secure. Search and rescue would get a simpler and so would surveillance of our waterways for rogue boats. Authorities should be able locate and identify any moving vessel of any reasonable size. Nearly all those

³⁰ RCMP Media Release, "RCMP and USGC begin Joint Marine Pilot Project in Detroit/Windsor Region," September 12, 2005, available at http://www.rcmp-grc.gc.ca/news/2005/n 0522 e.htm

Canadian Security Guide Book 2007 Edition - COASTS

vessels will be proceeding in total innocence. But some won't be, and the lack of a proper signal may help determine that.

Equipping smaller vessels with transponders was cost-prohibitive in the past.

Class A transponders (capable of both transmitting and receiving location data) cost in the neighbourhood of \$10,000-\$12,000, installed. However, Class B transponders (which are nearly identical to Class A transponders except for a lower transmission rate and less features) 31 can now be acquired for as little as \$1,200 – a reasonable price given that even the smallest cabin cruisers cost upwards of \$150,000.

Large commercial vessels should also be subject to greater scrutiny. The Great Lakes water system is a vital economic artery for both Canada and the United States. Millions of people live around its edges. Under current security arrangements, officials are rarely sure of whether any boats on the Lakes present a threat to Canada or the United States.

Finally, both Canada and the United States should be assigning more officers to police the Great Lakes. Security is now largely in the hands of local police forces attached to cities along the lake. These forces may have some expertise in boater safety, but they can't be expected to pick needles out of a haystack when it comes to people on the Lake who may present a threat to either country's security. It is also worth noting that these local police forces get virtually no federal funding for national security issues.

A concerted effort is needed. There have been a few half-hearted efforts to date to better secure the Great Lakes. But they have not come close to measuring up to the threat. What we need is a concerted bilateral effort to assign responsibilities, provide better input for information fusion and conduct far more maritime patrols. Canada has sovereignty over about 92,200 square kilometers of Great Lakes waters. We aren't going to put a patrol boat on every square kilometer of water, by any means. But there must be at least a reasonable level of surveillance and policing on these vulnerable waters. Right now, there isn't – not by a long shot.

32

³¹ U.S. Coast Guard, "Types of Automatic Identifications Systems," (July 2005) Available at http://www.navcen.uscg.gov/enav/ais/types of AIS.htm

COMMITTEE'S RECOMMENDATIONS

- The Committee recommended that Transport Canada (TC) require all vessels of more than 15 tonnes to be equipped with transponders of at least Class B capacity by 2008.³² (Recommended in October 2003)
- The Committee recommended that mandatory reporting for all vessels (of a displacement to be determined by Canadian regulators) to Canadian authorities 24 hours prior to anticipated entry into Canadian Great Lakes ports.³³ (Recommended in September 2002)
- The Committee recommended that equipping all vessels (of a displacement to be determined by Canadian regulators) intending to operate in the Great Lakes region with transponders to permit electronic tracking by Canadian authorities (this requirement would have the added benefit of greatly improving the precision of search and rescue). (Recommended in September 2002)
- The Committee recommended that mandatory daily reporting to Canadian authorities for all vessels (of a displacement to be determined by Canadian regulators) operating in Canadian national waters. (Recommended in September 2002)
- The Committee recommended that designating Canada's Great Lakes reporting stations responsible for receipt and coordination of these reports and for communication with policing agencies.³⁶ (Recommended in September 2002)

GOVERNMENT RESPONSE

Regarding the Committee's recommendations for mandatory reporting for port entry, electronic tracking requirement and mandatory daily reporting, and reporting

³² October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 57). Recommendation #2.4

³³ September 2002 - Defence of North America: A Canadian Responsibility, (page 15). Recommendation #8.i

³⁴ September 2002 - Defence of North America: A Canadian Responsibility, (page 15). Recommendation #8.ii

³⁵ September 2002 - Defence of North America: A Canadian Responsibility, (page 15). Recommendation #8.iii

³⁶ September 2002 - Defence of North America: A Canadian Responsibility, (page 15). Recommendation #8.iv

station designations, Public Safety and Emergency Preparedness Canada, in its August 30, 2006 response to the Committee, stated:

"Similar to U.S. Customs, Canada Border Services Agency has now established the requirement for the cargo manifest of a ship bound for Canada to be sent to them electronically 24 hours before the cargo is loaded onto the ship in a foreign port.

The advance reporting timeframes vary based on type of cargo and port of loading e.g., containerized cargo loaded in any country other than the US must be reported 24 hours prior to loading in the foreign port; marine cargo loaded in the US must be reported 24 hours prior to arrival in Canada.

The Transport Canada *Marine Transportation Security Regulations*, which came into effect on July 1, 2004, require that prearrival notification be made 96 hours prior to entering Canadian waters or as soon as practical but not less than 24 hours where the estimated time of arrival of the ship in Canadian waters is less than 96 hours (generally applicable in the Great Lakes).

The combination of the Canadian Coast Guard (CCG) 24-hour vessel traffic report, Transport Canada (TC) 96 hour prearrival report, and the Canada Border Services Agency mandatory pre-loading information provides the federal enforcement community with sufficient lead-time to convert information to maritime intelligence and then react, if required.

The implementation of the Automatic Identification System (AIS), which will provide the continuous tracking of SOLAS class vessels up to 40 nautical miles off our coasts was announced in January 2003. CCG will develop the AIS on a fast track basis and develop a long-range vessel identification and tracking system (LRIT) in conjunction with AIS.

In January 2003, funding of \$ 172.5 million over five years was announced for initiatives designed to further enhance the security of Canada's marine transportation system and marine borders.

CCG is leading the implementation of a \$27.5 million AIS and LRIT, which began in 2004. Transport Canada, as the responsible for establishing regulatory department requirements, has outlined which vessels must be equipped with AIS, in line with new international requirements adopted by the International Maritime Organization (IMO). The CCG will build and operate the shore-based component of AIS and develop a capability for LRIT, which will significantly enhance awareness of SOLAS vessels³⁷ approaching and operating in Canadian waters. Additionally, the January 2003 funding included the deployment by Department of National Defence (DND) of High-Frequency Surface Wave Radar systems on our east and west coasts.

In addition, all SOLAS shipping vessels, Canadian and international, are now equipped with a Ships Security Alert System (SSAS). Similar to the alert system that exists on aircraft, SSAS works covertly (i.e. silent alarm) to let authorities know that the ship is experiencing a security problem such as piracy or a terrorist attack. When activated, the system sends an alert message to the Joint Rescue Coordination Centres, which in turn relay the alert to the proper authorities.

Relative to the suggested implementation of mandatory vessel daily reporting to Canadian authorities, PSEPC says the CCG Marine Communications and Traffic Services (MCTS) program could coordinate this task on behalf of

_

³⁷ A "SOLAS ship" refers to a vessel that is 500 gross tonnes or more or is carrying more than 12 passengers and is engaged on a voyage from a port in one country to a port in another country – other than a voyage solely on the Great Lakes and the St. Lawrence River as far seaward as a straight line drawn from Cap des Rosiers to West Point, Anticosti Island, and from Anticosti Island to the north shore of the St. Lawrence River along the meridian of longitude sixty-three degrees west.

Transport Canada, if deemed necessary. This might require changes to the current Vessel Traffic Services regulations. While in the Great Lakes, all oil tankers are now reporting their position to the U.S. Coast Guard at 0600 hours everyday.

The Information System on Marine Navigation (INNAV) used by MCTS centered in the Great Lakes has the capacity for receipt and uploading of vessel traffic information to a maritime intelligence system. Procedures are already in place for communications with federal and provincial enforcement agencies. The interim Marine Security Operation Centre (MSOC) on the Great Lakes / St. Lawrence Seaway (GL/SLS) is in the process of having this INNAV system made available to them."³⁸

On the issue of equipping cabin cruisers and other vessel well under the SOLAS cut-off of 500 tonnes with Class B transponders, Transport Canada stated in a response on July 6, 2006:

"Transport Canada and many Interdepartmental Marine Security Working Group members recognize the potential contribution of implementing an automatic identification system (AIS) for smaller vessels - particularly for improving security on the Great Lakes.

At present, the government has not announced any plans requiring vessels to carry Class B transponders. International technical standards for Class B transponders have just been approved. TC is now in a position to consider the cost-benefit analysis and economic impact on Canadian owners and operators of smaller vessels."39

CHALLENGE TO GOVERNMENT

"[Transport Canada] is now in a position to consider . . ." Why is there never a response that says "Hey, Transport Canada is going to do that, and we're going to do it right away!"

³⁹ Transport Canada, "Response to Committee Recommendations," July 7, 2006, p16.

³⁸ PSEPC, "Response from PSEPC/Portfolio on Reports from SCONSAD," August 30 2006, pp. 31-32.

In terms of daily mandatory reporting, PSEPC states that oil tankers on the Great Lakes report themselves to the U.S. Coast Guard at 0600 daily. PSEPC then states that this could be done in Canada "if deemed necessary." Do we not share parts of these same waterways? Why would it be necessary for the U.S. but not necessary for us? Could we not set up some kind of information sharing system with the U.S. Coast Guard whereby all vessels in the Great Lakes region must report daily to a Coast Guard office?

On the other hand, the department seems to be seriously considering requiring transponders for at least some smaller vessels – at least the tone of its response is mildly encouraging. The Committee's 2008 deadline obviously isn't going to be met, although we hope that Transport Canada will have finished "considering" by then and have advanced a concrete proposal to government.

Meanwhile, we offer these new recommendations:

NEW RECOMMENDATIONS

- C5. The Committee recommends that all Canadian-registered vessels longer than 30 feet or weighing more than 2 tonnes be required to be equipped with functioning Class B transponders by Dec. 31, 2008.
- C6. The Committee recommends that mandatory reporting for all vessels with a displacement of two tonnes or greater to Canadian authorities 24 hours prior to anticipated entry into Canadian Great Lakes ports by Dec, 31, 2008.
- C7. The Committee recommends that equipping all vessels 30 feet or weighing more than 2 tonnes intending to operate in the Great Lakes region with transponders to permit electronic tracking by Canadian authorities (this requirement would have the added benefit of greatly improving the precision of search and rescue) by Dec. 31, 2008.
- C8. The Committee recommends that mandatory daily reporting to Canadian authorities for all vessels with a displacement of 2 tonnes or greater operating in Canadian national waters by Dec. 31, 2008.

Canadian Security Guide Book 2007 Edition - COASTS

All the transponders in the world aren't going to help, of course, unless there are facilities to analyze the information gathered and enough vessels and police officers to interdict often enough to deter untoward behaviour on the Lakes.

Former RCMP Commissioner Zaccaredelli told the Committee that the recognized maritime picture displays the position of commercial vessels weighing more than 300 tonnes and other vessels that voluntarily report their position. As for smaller marine vessel traffic, he said the sensor technology (radar and the Automated Identification System - which operates in similar fashion to a transponder) and the governing regulations which would enhance detection and tracking have not been put in place.

Canadian authorities on the Great Lakes still do not have a real time common operating picture of what vessels are operating on the Great Lakes. Nor do they have anywhere near the policing capacity that would deter threats to Canadian society from activities on the Great Lakes.

The Committee repeats: this expanse of water is far too vast to scrutinize and police everywhere, all the time. But so is Canada's land mass. And that doesn't stop us from doing at least enough policing to deter crime.

Problem 8:

Lack of Policing on Canada's Inland Coastal Waters

Responsibility for security is confused and security is almost non-existent along Canada's maritime approaches and major inland waterways. Consider the fact that the RCMP patrols the Great Lakes and St. Lawrence Seaway with 14 officers aboard 3 vessels. There are local police force marine units – typically with less than a handful of officers – but they have their hands full dealing with pleasure boaters and can't be counted on to address national security threats.

COMMITTEE'S RECOMMENDATIONS

- The Committee recommended that the RCMP conduct a risk / threat assessment to determine the personnel, equipment, and financial resources it needs to re-establish the Marine Division and to police the St. Lawrence Seaway, St. Lawrence River, Great Lakes, the Fraser and Skeena Rivers, and inland waterways identified as high risk.⁴⁰ (Recommended in October 2003)
- The Committee also recommended that the RCMP report its findings to the public by March 31, 2004 and have an operational plan ready for March 31, 2005, and that the government be prepared to fund the stated requirements.⁴¹ (Recommended in October 2003)

GOVERNMENT RESPONSE

The Department of Public Safety and Emergency Preparedness Canada (PSEPC) stated in its August 30, 2006 reponse to the Committee:

"The Marine Security Research Project was completed. The draft report was completed in January 2005 and forwarded to partner agencies. As a result of feedback and gaps identified in the report, additional information was sought from different federal agencies. This information has now

⁴⁰ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 103). Recommendations #4.3

⁴¹ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 103). Recommendations #4.4

been acquired and was incorporated into the final report, which was completed in December 2005.

In regards to the RCMP on-water response suggested by the Committee, several marine security initiatives were included in Budget 2005 and are currently being implemented. This includes a joint RCMP-Canadian Coast Guard (CCG) maritime security program. The CCG will acquire four Mid-Shore Patrol Vessels for safeguarding patrol and response capability on the Great Lakes, St. Lawrence Seaway (GL/SLS), to be fully completed by April 2010, with an interim program in place until that time. The vessels will be maintained and operated by CCG with uniformed police officers on board.

As an interim measure, the RCMP and CCG commenced joint dedicated law enforcement patrols along the Great Lakes and the St. Lawrence Seaway (GLSLS) system in July 2005. The CCG provides its expertise in the operation of vessel at sea and fleet management, while the RCMP utilizes its constabulary powers to enforce provincial and federal law, including anti-terrorism provisions. Three vessels have been dedicated to this function.

The patrols are carried out on a daily basis. Dependent on the intelligence and the operational support requested, these patrols cover various areas throughout the region. This partnership provides needed capacity to establish federal presence and respond to security incidents in the GL/SLS, as well as supporting land-based investigative units.

This multi-agency approach involving the RCMP and CCG builds on existing mandates, strengths and successes; leverages economies of scale to achieve efficiencies and effectiveness; and, emphasizes collaborative efforts to address on-water capacity in the GL/SLS area."⁴²

-

⁴² PSEPC, "Response from PSEPC/Portfolio on Reports from SCONSAD," August 30 2006, pp. 26-27.

CHALLENGE TO GOVERNMENT

Canadian security on the Great Lakes and adjoining waters: three patrol vessels (one RCMP and two Coast Guard) staffed by 14 RCMP officers and an undetermined number of provincial and local police until 2008, when the number of boats will remain the same, but the complement of officers will rise to 30. Four permanent patrol vessels by 2010.

Again, what happened to the philosophy of "Canada First" when in comes to defence? Three or four vessels could be used in the Thousand Islands Region alone! In addition, we cannot expect a vessel to function perpetually – maintenance and repairs will inevitably be required.

Let's get real. Our Coast Guard vessels need helicopters onboard for Search and Rescue operations and to transport RCMP officers to where they are needed. Tier 2 UAVs would also be useful to have onboard if a real-time snapshot of the region is required. Finally, does the Canadian public really think that a "Canada First" defence plan can be accompished on the Great Lakes with four boats that aren't going to come in another 3 years? Is this the best we can do?

Compare that to U.S. security on the Great Lakes and adjoining waters: the 9th Division of United States Coast Guard (USCG) – the lead agency in the United States responsible for securing the Great Lakes, employs approximately 2,200 active duty members located at 48 stations from Alexandria Bay, New York to Duluth Minnesota. As the Committee said in its 2006 report Managing Turmoil:

"In order to effectively secure the GLSSS⁴³, the Government must give the RCMP Marine Program the teeth it needs. Securing the GLSSS will require an expansion of the RCMP Marine Program from its current level of approximately 14 officers to between 1200-1600 RCMP personnel, positioned at strategic locations on the GLSSS such as Thunder Bay, Kingston, Quebec City and others. This expansion in personnel should also be accompanied by a significant investment in infrastructure, marine-related assets and technology such as 12 rapid patrol vessels, 2 helicopters, 6 Unmanned Aerial Vehicles (UAVs)."

41

⁴³ Great Lakes and St-Lawrence Seaway System

Canadian Security Guide Book 2007 Edition - COASTS

The Committee believes that this will allow the RCMP to:

- a. Provide sufficient coverage and patrol capacity to effectively enforce federal statutes on the GLSSS;
- b. Gain better situational awareness of activities on the GLSSS;
- c. Maintain interdiction capacity on the GLSSS on a 24-7-365 day basis; and
- d. Have the capacity to become an effective partner to the USCG in securing the GLSSS.

This substantial increase in RCMP resources on the Great Lakes and St. Lawrence Seaway (GL/SLS) is easily justified considering that the RCMP would be responsible for policing 92, 200 sq/km of water.

While the responsibility to determine the locations for marine units lies with the RCMP, RCMP stations could, for example, be located on the shores of the GL/SLS: at Thunder Bay, Marathon, Sault Ste Marie, Parry Sound, Port Elgin, Sarnia, Windsor, Niagara Falls, Long Point, Toronto, Kingston, Cornwall, Montreal and Quebec City. On other major inland waterways such as the Fraser and Skeena Rivers in British Columbia, RCMP marine units could be located at Richmond, Chilliwack, Port Essington and Terrace. An extensive deployment plan will allow the RCMP to demonstrate a police presence as well as maintain an interdiction capacity (by vessel, UAV and/or helicopter) throughout the GL/SLS region and other major inland waterways. To do this properly at each location, the RCMP will require enough personnel to:

- Operate a number of vessels of varying sizes and UAVs on a 24-7 basis (This would require approximately four to five shifts of officers);
- Provide investigative support;
- Provide administrative support:
- Maintain technology (equipment technicians, vessel mechanics and facility maintenance); and,
- Manage the operation of the facility.

In addition to bolstering the RCMP, the government should make cooperative Canada-U.S. security projects a permanent feature of securing the Great Lakes and adjoining waters.

The "Shiprider" pilot project, which comprised of joint patrols between the RCMP and U.S. Coast Guard, was a good start. But it was only a two- week pilot project.

Pilot projects are not enough to secure the Great Lakes. More permanent joint projects and more police are required.

NEW RECOMMENDATIONS

- C9. The Committee recommends that the Government of Canada increase the size of the RCMP Marine and Ports Branch by between 1,200 and 1,400 full-time equivalents (FTEs) in order to provide the RCMP with the capacity to:
 - Provide sufficient coverage and patrol capacity to effectively enforce federal statutes on the Great Lakes and St. Lawrence Seaway (GL/SLS);
 - Gain better situational awareness of activities on the GL/SLS;
 - Maintain interdiction capacity on the GL/SLS on a 24-7 basis;
 - Have the capacity to become an effective partner to the USCG in securing the GL/SLS.
- C9(a) This expansion in personnel should also be accompanied by a significant investment in infrastructure, marine-related assets and technology, including 16 rapid patrol vessels, 4 helicopters and 6 Uninhabited Aerial Vehicles (UAVs).
- C10. The Committee recommends that the RCMP conduct a risk / threat assessment to determine the personnel, equipment, and financial resources it needs to police Lake Winnipeg.

Canadian Security Guide Book 2007 Edition - COASTS

APPENDIX I Order of Reference

Extract from the *Journals of the Senate*, Thursday, April 27, 2006:

It was moved by the Honourable Senator Kenny, seconded by the Honourable Senator Moore:

That the Standing Senate Committee on National Security and Defence be authorized to examine and report on the national security policy of Canada. In particular, the Committee shall be authorized to examine:

- (a) the capability of the Department of National Defence to defend and protect the interests, people and territory of Canada and its ability to respond to and prevent a national emergency or attack, and the capability of the Department of Public Safety and Emergency Preparedness to carry out its mandate;
- (b) the working relationships between the various agencies involved in intelligence gathering, and how they collect, coordinate, analyze and disseminate information and how these functions might be enhanced;
- (c) the mechanisms to review the performance and activities of the various agencies involved in intelligence gathering; and
 - (d) the security of our borders and critical infrastructure.

That the papers and evidence received and taken during the Thirty-seventh and Thirty-eighth Parliaments be referred to the Committee; and

That the Committee report to the Senate no later than March 31, 2007 and that the Committee retain all powers necessary to publicize the findings of the Committee until May 31, 2007.

After debate,

The question being put on the motion, it was adopted.

Paul C. Bélisle *Clerk of the Senate*

Canadian Security Guide Book 2007 Edition - COASTS

APPENDIX II Index of Recommendations Canadian Security Guide Book 2005

Problem 1: Canada's Toothless Coast Guard

The Committee recommended that the federal government take immediate steps to transform the Canadian Coast Guard from an agency that reports to DFO to an independent agency responsible to Parliament. It should continue to carry out its duties – search and rescue, ice-breaking, navigational aids, buoy tending, boat safety, fisheries and environment protection – and take on new responsibilities for national security. On security assignments, the Coast Guard would come under the direction of Department of National Defence (DND) coastal operations centres (Trinity and Athena). (Recommended in October 2003) (p. 2)

Problem 2: Too Many Holes to Fill Without a Plan

• The Committee recommended that the issue of the security of Canada's coastline be examined, and a plan developed to broaden and tighten its security. (Recommended in February 2002) (p. 12)

Problem 3: Inadequate Coastal Radar

• The Committee recommended that at least eight and possibly more High Frequency Surface Wave Radar (HFSWR) sites be installed to monitor areas of heavy traffic on Canada's coasts, plus other coastal sites that terrorists might target as alternates to high-traffic ports. (Recommended in October 2003) (p. 18)

Recommendation #2.1

⁴⁴ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 103). Recommendation #4.1

February 2002 - Canadian Security and Military Preparedness, (page 116). Recommendation #10
 October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 57).

Problem 4: Inadequate Short-Range Coastal Patrols

The Committee recommended that tactical drones (Unmanned Aerial Vehicles – UAVs) be introduced as surveillance aids on both coasts.⁴⁷ (October 2003) (p. 21)

Problem 5: Dearth of Long-Range Patrols on Three Coasts

• The Committee recommended that the government conduct a study to ascertain whether the use of higher-cost strategic drones should be introduced into Canada's surveillance matrix in the Arctic, as well as the east and west coasts. (Recommended in October 2003) (p. 23)

Problem 6: Lack of Coastal Warnings Network

• The Committee recommended that Canada negotiate reciprocal arrangements with other Maritime nations to provide each other with advance information on vessels, crews, and cargo, including indicators of which cargo items they have already inspected and in what ways. ⁴⁹ (Recommended in October 2003) (p. 25)

Problem 7: Lack of Great Lakes Surveillance

- The Committee recommended that Transport Canada (TC) require all vessels of more than 15 tonnes to be equipped with transponders of at least Class B⁵⁰ capacity by 2008.⁵¹ (Recommended in October 2003)
- The Committee recommended that mandatory reporting for all (of a displacement to be determined by Canadian regulators) to Canadian authorities

⁴⁷ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 57). Recommendation #2.2

⁴⁸ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 57). Recommendation #2.3

⁴⁹ September 2002 - Defence of North America: A Canadian Responsibility, #4 October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 147). Recommendation #6.3

⁵⁰ A Class B transponder is able to transmit but not receive. Class B transponders are expected to be smaller, more limited, lower-cost alternatives to Class A transponders. A description of the differences between Class A and Class B Automatic Identification Systems is available from the US Coast Guard here: United States Coast Guard, "Types of Automatic Identifications Systems" (27 January 2004). http://www.navcen.uscg.gov/enav/ais/types of AIS.htm (accessed September 30, 2004).

⁵¹ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 57). Recommendation #2.4

- 24 hours prior to anticipated entry into Canadian Great Lakes ports. ⁵²(Recommended in September 2002)
- The Committee recommended that equipping all vessels (of a displacement to be determined by Canadian regulators) intending to operate in the Great Lakes region with transponders to permit electronic tracking by Canadian authorities (this requirement would have the added benefit of greatly improving the precision of search and rescue).⁵³ (Recommended in September 2002)
- The Committee recommended that mandatory daily reporting to Canadian authorities for all vessels (of a displacement to be determined by Canadian regulators) operating in Canadian national waters.⁵⁴ (Recommended in September 2002)
- The Committee recommended that designating Canada's Great Lakes reporting stations responsible for receipt and coordination of these reports and for communication with policing agencies.⁵⁵ (Recommended in September 2002) All (p. 33)

Problem 8: Lack of Policing on Canada's Inland Coastal Waters

- The Committee recommended that the RCMP conduct a risk / threat assessment to determine the personnel, equipment, and financial resources it needs to reestablish the Marine Division and to police the St. Lawrence Seaway, St. Lawrence River, Great Lakes, the Fraser and Skeena Rivers, and inland waterways identified as high risk. ⁵⁶ (Recommended in October 2003) (p. 39)
- The Committee also recommended that the RCMP report its findings to the public by March 31, 2004 and have an operational plan ready for March 31, 2005, and that the government be prepared to fund the stated requirements.⁵⁷ (Recommended in October 2003) (**p. 39**)

⁵² September 2002 - Defence of North America: A Canadian Responsibility, (page 15). Recommendation #8.i

⁵³ September 2002 - Defence of North America: A Canadian Responsibility, (page 15). Recommendation #8.ii

⁵⁴ September 2002 - Defence of North America: A Canadian Responsibility, (page 15). Recommendation #8.iii

⁵⁵ September 2002 - Defence of North America: A Canadian Responsibility, (page 15). Recommendation #8.iv

⁵⁶ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 103). Recommendations #4.3

⁵⁷ October 2003 - Canada's Coastlines: The Longest Under-Defended Borders in the World, (page 103). Recommendations #4.4

Canadian Security Guide Book 2007 Edition - COASTS

APPENDIX III Index of New Recommendations

Problem 1: Canada's Toothless Coast Guard

- C1. The Committee recommends that the Government of Canada procure three, year-round, class 10 icebreakers with constabulary powers for Canadian Coast Guard presence in our Arctic waters. (p. 11)
- C2. The Committee recommends that the Government of Canada procure eight Canadian Coast Guard cutters to be deployed on our East and West coasts with these specifications:
 - 1. The ability to operate in high sea states;
 - 2. A high maximum speed for positioning and pursuit;
 - 3. High endurance to maximize deployment time;
 - 4. The ability to operate a large helicopter (e.g. CH124);
 - 5. The ability to transport and deploy boarding parties;
 - 6. Ice tolerance (first year ice);
 - 7. Sophisticated sensors (e.g., radar, ESM, electro-optic, sonar);
 - 8. The ability to participate in network-centric command and control regimes;
 - 9. Sophisticated communications capability;
 - 10. Armament commensurate with enforcement functions (e.g., small arms, machine guns (e.g., 50 Cal), medium calibre weapon (e.g., 57mm or 76mm) and close-in self-defence weapon system (e.g., Phalanx). (p. 11)

Problem 2: Too Many Holes to Fill Without a Plan

No new recommendations – old recommendations still stand. Please see Appendix II.

Problem 3: Inadequate Coastal Radar

C3. The Committee recommends that the Government of Canada put in place by 2010 a satellite system, or a satellite system supported by UAVs, that will give Canadian defensive forces a clear, real-time picture of shipping activity

on our East, West and Arctic Coasts and our Great Lakes and St-Lawrence Seaway. (p. 20)

Problem 4: Inadequate Short-Range Coastal Patrols

No new recommendations – old recommendations still stand. Please see Appendix II

Problem 5: Dearth of Long-Range Patrols on Three Coasts

C4. The Committee recommends that the Government of Canada acquire sufficient Tier 1 UAVs to provide real-time maritime pictures of the Arctic, our East and West coasts as well as our Great Lakes and St-Lawrence Seaway until full satellite coverage is in place. (p. 24)

Problem 6: Lack of Coastal Warnings Network

No new recommendations – old recommendations still stand. Please see Appendix II

Problem 7: Lack of Great Lakes Surveillance

- C5. The Committee recommends that all Canadian-registered vessels longer than 30 feet or weighing more than 2 tonnes be required to be equipped with functioning Class B transponders by Dec. 31, 2008.
- C6. The Committee recommends that mandatory reporting for all vessels with a displacement of two tonnes or greater to Canadian authorities 24 hours prior to anticipated entry into Canadian Great Lakes ports by Dec, 31, 2008.
- C7. The Committee recommends that equipping all vessels 30 feet or weighing more than 2 tonnes intending to operate in the Great Lakes region with transponders to permit electronic tracking by Canadian authorities (this requirement would have the added benefit of greatly improving the precision of search and rescue) by Dec. 31, 2008.
- C8. The Committee recommends that mandatory daily reporting to Canadian authorities for all vessels with a displacement of 2 tonnes or greater operating in Canadian national waters by Dec. 31, 2008. All (p. 37)

Problem 8: Lack of Policing on Canada's Inland Coastal Waters

- C9. The Committee recommends that the Government of Canada increase the size of the RCMP Marine and Ports Branch by between 1,200 and 1,400 full-time equivalents (FTEs) in order to provide the RCMP with the capacity to:
 - Provide sufficient coverage and patrol capacity to effectively enforce federal statutes on the Great Lakes and St. Lawrence Seaway (GL/SLS);
 - Gain better situational awareness of activities on the GL/SLS;
 - Maintain interdiction capacity on the GL/SLS on a 24-7 basis;
 - Have the capacity to become an effective partner to the USCG in securing the GL/SLS.
- C9(a). This expansion in personnel should also be accompanied by a significant investment in infrastructure, marine-related assets and technology, including 16 rapid patrol vessels, 4 helicopters and 6 Uninhabited Aerial Vehicles (UAVs).
- C10. The Committee recommends that the RCMP conduct a risk / threat assessment to determine the personnel, equipment, and financial resources it needs to police Lake Winnipeg. (All p. 43)

Canadian Security Guide Book 2007 Edition - COASTS

APPENDIX IV

Description of Coast Guard Cutter and Icebreakers Recommended by the Committee

Canadian Coast Guard – Heavy Arctic Icebreakers, the Cutter Recommended by John Dewar and the United States Coast Guard Option

This appendix briefly discusses the requirements for a new Heavy Arctic Icebreaker that would enable the Canadian Coast Guard (CCG) to break ice year-round in Canada's Arctic waters and discusses in depth the specifications of a new cutter that would enable the CCG to police and protect Canada's coasts.

Heavy Arctic Icebreaker

The Committee believes that the CCG, which has an extensive experience in the icebreaking business, should have the capacity to ensure that marine traffic can move safely through and around ice in Polar waters year round.

However, of the CCG's 19 icebreakers, ⁵⁸ only two are Heavy Arctic Icebreakers which are only capable of sustained operations in the Canadian Arctic for the period of early June to mid-November. ⁵⁹

The Committee believes 3 Heavy Arctic Icebreakers; able to operate in Polar waters year-round would provide the CCG with the capacity to provide safe passage for marine traffic through Arctic water.

Dewar's Vessel:

On 2 June 2003, Mr. John Dewar testified to the Standing Senate Committee on National Security and Defence that Canada should purchase a corvette-sized ship, also called a 'cutter,' for use by the navy in the performance of law enforcement functions.

⁵⁸ Fisheries and Oceans Canada, Canadian Coast Guard "Icebreaking Program," http://www.ccg-gcc.gc.ca/ice-gla/overview e.htm Last visited September 26, 2006.

gla/overview_e.htm Last visited September 26, 2006.

⁵⁹ Fisheries and Oceans Canada, "Commissioned Vessels, Aircraft, and Hovercraft," http://www.ccg-gcc.gc.ca/fleet-flotte/vessels-navires/main_e.asp_Last_visited_September_25, 2006.

Canadian Security Guide Book 2007 Edition - COASTS

He recommended a vessel measuring 75 meters that was able to operate in a high sea-state, move quickly (25 knots minimum using diesel propulsion), and remain at sea for 30 days. He said that a landing deck or hanger for a large maritime helicopter like the Sea King is essential. A helicopter would assist in the identification of ships and extend the visible range from the vessel. Typically, sailors can see 6-10 nautical miles from their ship, but most maritime helicopters have a range of 150 nautical miles.

Comparison with Canadian Coast Guard (CCG) Cutters:

CCG cutters do not meet the criteria outlined by Dewar. The Gordon Reid and Tanu are not as fast or large. The Gordon Reid is 50 meters long and has a top speed of 16.5 knots, and the Tanu is 50.1 meters long and has a top speed of 13.5 knots.

The Sir Wilfred Grenfell, Leonard J. Cowley, and Cape Roger are large enough, but are too slow. The Sir Wilfred Grenfell is 68.5 meters long and has a maximum speed of 16 knots, the Leonard J. Cowley is 72 meters long and has a maximum speed of 15 knots, and the Cape Roger is 62.5 meters long and has a top speed of 17 knots.

In addition, of the CCG's five multi-task cutters larger than 50 meters, two (the Cape Roger and Tanu) are at least 25 years old and should therefore be replaced.

Dewar estimates that the vessel would cost CDN \$ 55-100 million per unit. Since it would be used for law enforcement, commercial construction and procurement practices could be adopted to lower the per unit price. Civilian sources could be relied upon for service support throughout the life of the vessel, further reducing the cost.

The main factor in the vessel's cost would be the sophistication and density of its radar, sensors, communications equipment and weapon systems. There is a wide variation in the types of sensors and radars. A working group should be convened to determine the specific requirements so that the right balance between affordability and capability can be found. A consultancy process is necessary because of the number of government and departmental jurisdictions involved.

Keeping the size of the cutter roughly as specified is important because the vessel needs good sea-keeping ability. The size of a ship is not directly proportional to its

Description of Coast Guard Cutter and Icebreakers Recommended by the Committee

cost. The ship's physical dimensions are a small part of its total cost, but they have a significant impact on performance. Dewar testified before the Committee that the cutter should be around 75 metres long in order to conduct boardings and have the desired sea-keeping capability.

Dewar believes the capabilities needed for the law enforcement function are:

- 1. The ability to operate in high sea states
- 2. A high maximum speed for positioning and pursuit
- 3. High endurance to maximize deployment time
- 4. The ability to operate a large helicopter (e.g. CH124)
- 5. The ability to transport and deploy boarding parties
- 6. Ice tolerance (first year ice)
- 7. Sophisticated sensors (e.g., radar, ESM, electro-optic, sonar)
- 8. The ability to participate in network-centric command and control regimes
- 9. Sophisticated communications capability
- 10. Armament commensurate with enforcement functions (e.g., small arms, machine guns (e.g., 50 Cal), medium calibre weapon (e.g., 57mm or 76mm) and close-in self-defence weapon system (e.g., Phalanx)

Dewar recommends that the vessel have these specifications:

Length (waterline): minimum 75m Beam: minimum 12m

Displacement: minimum 1600T, desirable 2000T Propulsion: Twin Shaft, 2 x Medium Speed Diesel

Maximum Speed: minimum 25 knots

Time on Station: 30 Days

Complement: maximum 40 (mixed gender)

Accommodation: for 40 more personnel (boarding teams, etc.)

Helicopter: Large helicopter (e.g., CH124) - minimum landing

deck, hangar desirable

Estimate cost: \$55M - \$100M per unit (ROM)

Canadian Security Guide Book 2007 Edition - COASTS

United States Coast Guard (USCG) Alternative:

The USCG is implementing an Integrated Deepwater System Program. Under this major multi-year fleet upgrade and recapitalization program, an Offshore Patrol Corvette (OPC) with specifications and capabilities similar to the vessel recommended by Mr. Dewar will be constructed. The OPC will join the USCG fleet in 2013.

The price of the ship has not been determined. The USCG and the defence contractor (which is Integrated Coast Guard Systems, a joint venture established by Lockheed Martin and Northrop Grumman) do not know the cost at this time. The per-unit cost could be decreased and the construction timetable advanced if countries like Canada decided to purchase the vessel (Israel already has).

Canada could buy into the OPC production line as a straightforward military purchase. It could also enter into a co-operative agreement with the US to acquire a Canadianized version. It would not be difficult to equip the OPC with less sophisticated systems than the US model in order to reduce cost. Canada would pay for the Canadianized features it wanted, and the US would do the same. The cost for the standard elements would be shared.⁶⁰

58

⁶⁰ Senate Committee on National Security and Defence, "Canada's Coastlines: The Longest Under-Defended Borders in the World, Appendix XI," October 2003, http://www.parl.gc.ca/37/2/parlbus/commbus/senate/Come/defe-e/rep-e/rep17oct03-e.htm

APPENDIX V Glossary

Automatic Identification System (AIS): The AIS is an electronic shipboard broadcast system that acts like a transponder, operating in the VHF maritime band that is capable of handling well over 4,500 reports per minute and updates as often as every two seconds. It uses Self-Organizing Time Division Multiple Access technology to meet this high broadcast rate and ensure reliable ship-to-ship operation. The AIS can transmit information such as a velocity vector (indicating speed and heading), the actual size of the ship, GPS position, ship name, course and speed, classification, call sign, registration number, MMSI, and other information.⁶¹

Canadian Forces Experimentation Centre (CFEC): Defence experimentation is the application of scientific methods to the examination of concepts in order to solve complex problems faced by the military. The Canadian Forces Experimentation Centre (CFEC) is the centre for the exploration of emerging concepts at the joint operational level, employs a structured campaign of experimentation to investigate new military capabilities that support the transformation of the Canadian Forces.⁶²

Container Security Initiative (CSI): CSI is a US Customs and Border Protection security regime to ensure all containers that pose a potential risk for terrorism are identified and inspected at foreign ports before they are placed on vessels destined for the United States. CBP has stationed multidisciplinary teams of U.S. officers from both US Customs and Border Protection and US Immigration and Customs Enforcement to work together with host foreign government counterparts. Their mission is to target and pre-screen containers and to develop additional investigative leads related to the terrorist threat to cargo destined to the United States.⁶³

⁶¹ U.S. Coast Guard, "What is an Automatic Identification System (AIS)?," (July 7, 2005), Available at http://www.navcen.uscg.gov/enav/ais/default.htm, Accessed March 20, 2007

⁶² Defence Research Development Canada, "Annual Report 2005-2006," Available at www.drdc-rddc.gc.ca/publications/annual/supporting e.asp, Accessed March 20, 2007

⁶³ US Customs and Border Protection, "CSI in Brief," (February 15, 2006), Available at http://www.cbp.gov/xp/cgov/border-security/international-activities/csi/csi-in-brief.xml, Accessed March 20, 2007

Information System on Marine Navigation (INNAV): INNAV is a Canadian Coast Guard operated information management tool designed to support commerce by providing reliable waterway management and maximizing opportunities to integrate emerging technologies. INNAV is Canada's way to meet the marine information challenge, by addressing all the functions required for waterway management using the latest information, sensor, positioning and communications technology.⁶⁴

Integrated Border Enforcement Teams (IBETs): The Integrated Border Enforcement Team program is a multi-faceted law enforcement initiative comprised of both Canadian and American partners. This bi-national partnership enables the five core law enforcement partners (Royal Canadian Mounted Police, Canada Border Services Agency, US Customs and Border Protection, US Bureau of Immigration and Customs Enforcement , and US Coast Guard) involved in IBETS to share information and work together daily with other local, state and provincial enforcement agencies on issues relating to national security, organized crime and other criminality transiting the Canada/US border between the Ports of Entry. IBET is an intelligence-led cooperative that supports national security investigations associated to the Canada/US border and investigates cross-border illegal activities. Intelligence is developed and shared with all IBET partners in strict accordance with applicable laws, regulations and Agency/Departmental policies through appropriate protocols.

Interdepartmental Marine Security Working Group (IMSWG): The Interdepartmental Marine Security Working Group is a forum for identifying and coordinating federal government actions in support of Canada's objectives — from public security and anti-terrorism in the maritime realm to international marine security obligations. Transport Canada (TC) chairs the IMSWG. The membership includes 14 federal departments and agencies, including: Royal Canadian Mounted Police; Transport Canada; Department of National Defence; Canada Border Services Agency; Canadian Coast Guard; Department of Fisheries and Oceans; and Public Safety and Emergency Preparedness Canada. The IMSWG determines the programs to develop in addressing the four fundamental security activities — domain awareness, responsiveness, safeguarding and collaboration. 66

⁶⁴ Department of Fisheries and Oceans, "Information System on Marine Navigation (INNAV)," Available at http://www.ccg-gcc.gc.ca/mcts-sctm/docs/innav/innav_e.htm, Accessed March 20, 2007

⁶⁵ Royal Canadian Mounted Police, "Integrated Border Enforcement Teams (IBETS)," (August 2006), Available at http://www.rcmp-grc.gc.ca/security/ibets e.htm, Accessed March 20, 2007

⁶⁶ Royal Canadian Mounted Police, "Marine and Ports Branch," (July 2006), Available at http://www.rcmp-grc.gc.ca/fio/marine ports e.htm, Accessed March 20, 2007

International Convention of the Safety of Life at Sea, 1974 (SOLAS): The SOLAS Convention in its successive forms is generally regarded as the most important of all international treaties concerning the safety of merchant ships. The first version was adopted in 1914, in response to the Titanic disaster, the second in 1929, the third in 1948, and the fourth in 1960. The intention was to keep the Convention up to date by periodic amendments but in practice the amendments procedure proved to be very slow. As a result, a completely new Convention was adopted in 1974 which included not only the amendments agreed upon until that date but a new amendment procedure - the tacit acceptance procedure - designed to ensure that changes could be made within a specified (and acceptably short) period of time. As a result the 1974 Convention has been updated and amended on numerous occasions. The Convention in force today is sometimes referred to as SOLAS, 1974, as amended.⁶⁷

International Maritime Organization (IMO): The IMO is a specialized agency of the United Nations with 167 Member States and three Associate Members that is based in the United Kingdom. IMO's main task has been to develop and maintain a comprehensive regulatory framework for international shipping and its remit today includes safety, environmental concerns, legal matters, technical cooperation, maritime security and the efficiency of shipping.⁶⁸

International Ship and Port Facility Security (ISPS) Code: The ISPS Code seeks to establish an international framework of co-operation between governments, government agencies and the shipping and port industries in order to detect and take preventive measures against security incidents affecting ships or port facilities used in international trade.

Joint Unmanned Surveillance and Target Acquisition System Project (JUSTAS): The Joint UAV Surveillance and Target Acquisition System (JUSTAS) has been established to study the potential of Uninhabited Aerial Vehicle technology and the Canadian Forces' need for UAV's. JUSTAS is a \$500-million project to acquire a long-range UAV system to support domestic and international operations.⁶⁹

⁶⁷ International Marine Organization, "International Convention for the Safety of Life at Sea (SOLAS), 1974," Available at http://www.imo.org/Conventions/contents.asp?topic_id=257&doc_id=647, Accessed March 20, 2007 for International Maritime Organization, "Introduction to IMO," Available at http://www.imo.org/, Accessed March

⁶⁹ Department of National Defence, "Crew Brief: Fall 2006, Vol.4, No.2," (February 16, 2007), Available at http://www.airforce.forces.gc.ca/newsroom/crew/06-10/03 e.asp#5, Accessed March 20, 2007

Littoral Waters: Littoral waters are described as those areas adjacent to the oceans and seas that are within direct control of and vulnerable to the striking power of sea-based forces.⁷⁰

Long-Range Vessel Identification and Tracking System (LRIT): The Long Range Vessel Identification and Tracking System is a shipborne identification system to help different governments cooperate for marine search and rescue purposes. LRIT information is provided to Contracting Governments and Search and Rescue services entitled to receive the information, upon request, through a system of national, regional, cooperative and international LRIT Data Centres. Ships should only transmit the LRIT information to the LRIT Data Centre selected by their Administration. The obligations of ships to transmit LRIT information and the rights and obligations of Contracting Governments and of Search and Rescue services to receive LRIT information are established in regulation V/19-1 of the 1974 SOLAS Convention.⁷¹

Marine Security Operations Centres (MSOCs): The Marine Security Operations Centres pull together knowledge and skills for interdepartmental marine data collection, fusion, analysis and response coordination from various government departments/agencies, including Transport Canada, the Canada Border Services Agency, Canadian Coast Guard, Department of National Defence, and RCMP. There are currently two operational MSOCs: The Great Lakes-St. Lawrence Seaway Marine Security Operations Centre was established in the beginning in the summer of 2005.⁷² Another MSOC operates in the Canadian Forces Base in Esquimalt, BC.

Marine Security Contribution Program (MSCP): The Marine Security Contribution Program is a Transport Canada led 5-year, \$115-million Government of Canada commitment to assist all Canada's ports and marine facilities to modernize and strengthen their security systems and programs, to meet the requirements of the Marine Transportation Security Regulations, and to comply with the ISPS code. In November 2006, the federal government allotted \$42 million of the MSCP funds to provide surveillance equipment, dockside and

62

⁷⁰ United States Navy, "Forward...From the Sea," Washington, March 1997. http://www.chinfo.navy.mil/navpalib/policy/fromsea/ffseanoc.html.

⁷¹ International Maritime Organization, "Long range identification and tracking (LRIT)," Available at http://www.imo.org/Newsroom/mainframe.asp?topic_id=905, Accessed March 20, 2007

⁷² Transport Canada, "Canada's New Government Announces New Marine Security Initiatives," (April 22, 2005), Available at http://www.tc.gc.ca/mediaroom/releases/nat/2005/05-gc001ae.htm, Accessed January 2007

perimeter security, communications equipment for command and control, and training, across the Canadian port system.⁷³

Marine Transportation Security Regulations (MTSR): Transport Canada's Marine Transportation Security Regulations (MTSR), which came into effect July 1, 2004, acts to strengthen security requirements for vessels, marine facilities and ports so that they are in compliance with the International Maritime Organization's ISPS Code. The MTSR extends the ISPS code requirements to port facilities in Canada, cargo vessels of 100 tonnes (gross tonnage) or more and towing vessels greater than eight metres in length that tow barges carrying dangerous goods in bulk.⁷⁴

Marine Coastal Defence Vessel (MCDV): The Maritime Coastal Defence Vessel is a steel-hulled ship designed for multi-roled operations, including coastal surveillance and patrol, training and mine countermeasures. The basic equipment configuration includes surveillance radars, 40mm rapid-firing gun, two heavy machine guns, a modern communications suite and state-of-the-art navigation systems. MCDVs also provide support to other government departments such as the RCMP, Canada Customs, and Fisheries and Oceans (including the Canadian Coast Guard). The MCDV also supports search and rescue operations and environmental disaster response.⁷⁵

Marine Communications and Traffic Services Centres (MCTS): Canadian Coast Guard operated MCTS Centres facilitate ship-to-shore communications and ensure the safe use of navigable waterways. They play a crucial role in reducing the risk of vessel collisions, groundings and strikings in Canadian waters, and providing the initial response to ships in distress. The four MCTS Centres cover an area encompassing the St. Lawrence River and its tributaries, the estuary and part of the Gulf of St. Lawrence as well as the coastal waters of the Magdalen Islands. They monitor marine radio distress frequencies around the clock, twelve months of the year, and respond to mariners' calls for assistance. MCTS Centres serve a large clientele made up of commercial ships, fishers, recreational boaters and whale-watching and other excursion vessels.⁷⁶

7

⁷³ Port of Vancouver, "The Port & Operations: Security," (January 3, 2007), Available at http://www.portvancouver.com/the-port/security.html, Accessed March 20, 2007

⁷⁴ Great Lakes St. Lawrence Seaway System, "Compliance with the ISPS Code," Available at http://www.greatlakes-seaway.com/en/navigation/isps_bg.html, Accessed March 20, 2007

⁷⁵ Department of National Defence, "About the Ship: Kingston Class MCDV," (January 2007), Available at http://www.navy.forces.gc.ca/nanaimo/about/ship about e.asp?category=175, Accessed on March 20, 2007

⁷⁶ Department of Fisheries and Oceans, "MCTS – Background," (July 2006), Available at http://www.marinfo.gc.ca/en/sctm/contexte.asp, Accessed March 20, 2007

North American Aerospace Defence Command (NORAD): The North American Aerospace Defense Command (NORAD) is a bi-national United States and Canadian organization charged with the missions of aerospace warning and aerospace control for North America. Aerospace warning includes the monitoring of man-made objects in space, and the detection, validation, and warning of attack against North America whether by aircraft, missiles, or space vehicles, through mutual support arrangements with other commands. Aerospace control includes ensuring air sovereignty and air defense of the airspace of Canada and the United States. The May 2006 NORAD Agreement renewal added a maritime warning mission, which entails a shared awareness and understanding of the activities conducted in U.S. and Canadian maritime approaches, maritime areas and inland waterways.⁷⁷

Pacific Heads of Coast Guard Agencies (NPHCGA): The NPHCGA is composed of coast guards or equivalent agencies from Canada, Japan, the Peoples' Republic of China, the Republic of Korea, the Russian Federation and the United States. Their mission is to enhance multilateral maritime security and increase cooperation in enforcing fisheries treaties, combating illegal drug trafficking and illegal migration.⁷⁸

Special Operating Agency (SOA): A federal government organization that has increased management flexibility in order to improve performance. Objectives include better overall management, improved operational results and greater focus on demand.⁷⁹

Security and Prosperity Partnership (SPP): The Security and Prosperity Partnership of North America (SPP) was launched in March of 2005 as a trilateral effort to increase security and enhance prosperity among the United States, Canada and Mexico through greater cooperation and information sharing.⁸⁰

Uninhabited Aerial Vehicle (UAV): An uninhabited aerial vehicle (also known as an unmanned aerial vehicle) is an aircraft with no onboard pilot. UAVs can be

64

⁷⁷ North American Aerospace Defence Command, "NORAD: About us," Available at http://www.norad.mil/about_us.htm, Accessed March 20, 2007

⁷⁸ U.S. Coast Guard, "Sept 27, 2005," (September 27, 2005), Available at http://www.uscgpacificarea.com/go/doc/833/84287/, Accessed March 20, 2007

⁷⁹ Department of Finance, "Glossary," (May 2006), Available at http://www.fin.gc.ca/gloss/gloss-s_e.html, Accessed March 20, 2007

⁸⁰ Security and Prosperity Partnership of North America, Available at http://www.spp.gov/, Accessed March 19, 2007

remote controlled or fly autonomously based on pre-programmed flight plans or more complex dynamic automation systems. UAVs are currently used in a number of military roles, including reconnaissance and attack.⁸¹

Vehicle And Cargo Inspection Systems (VACIS): VACIS machines are gamma-ray scanning systems that allow inspection of vehicles and cargo by non-intrusive means. They can be mobile (mounted on a truck) and pallet (stationary). The VACIS units use a low-level radiation source to penetrate the vehicles and their cargo. With the assistance of gamma ray scanning, operators view radiographic images of marine container shipments on a computer to quickly and easily identify hidden compartments associated with the transportation of stolen or illegal goods. 82

_

⁸¹ Wikipedia, "Unmanned Aerial Vehicle," (March 19, 2007), Available at http://en.wikipedia.org/wiki/Unmanned_aerial_vehicle, Accessed on March 20, 2007

⁸² Canada Border Services Agency, "Factsheet – VACIS," (2005), Available at http://www.cbsa-asfc.gc.ca/newsroom/factsheets/2005/0125vacis-e.html, Accessed January 2007

APPENDIX VI Who the Committee Heard From

Abbas, Mr. Leo Mayor Town of Happy Valley Goose Bay February 3, 2005

Adams, Mr. John Commissioner Canadian Coast Guard May 5, 2003

Addy, Major General (ret'd) Clive National Past Chairman, Federation of Military and United Services Institutes of Canada October 15, 2001

Alarie, Master Corporal Bernadette Canadian Forces Dental Services School CFB Borden June 25-27, 2002

Allan, Major Murray Deputy Commanding Officer Royal Regina Rifles January 27, 2003

Allen, Mr. Jon

Director General, North America Bureau Department of Foreign Affairs and International Trade January 28, 2002, March 17, 2003

Anderson, Colonel N.J. National Defence May 2, 2005

Arcand, Chief Warrant Officer Gilles 5th Combat Engineer Regiment CFB Valcartier September 24, 2003

Atkins, Chief Superintendent Ian Criminal Operations Officer, H Division, RCMP January 22-24, 2002, September 22-23, 2003

Audcent, Mr. Mark Law Clerk and Parliamentary Counsel Senate of Canada December 2, 2002 Adams, Superintendent Bill Federal Services Directorate RCMP June 9, 2003

Adams, Corporal Terrance CFB Borden Technical Services CFB Borden June 25-27, 2002

Addy, Major General (ret'd) Clive Conference of Defence Associations (Ottawa) June 27, 2005

Alexander, Dr. Jane Deputy Director U.S. Defence Advanced Research Projects Agency (DARPA) February 4, 2002

Allard, The Honorable Wayne Ranking Member (Republican – Virginia), U.S. Senate Armed Services Committee February 5, 2002

Amos, Chief Warrant Officer Bruce 423 Maritime Helicopter Squadron, 12 Wing Shearwater January 22-24, 2002

Andrash, Mr. P. (Duke) Sergeant 481, Vancouver Police Department November 18-22, 2001

Armstrong, Tim Assistant Chief, Special Operations Vancouver Fire & Rescue Services January 29, 2007

Atkinson, Ms. Joan Assistant Deputy Minister, Policy and Program Development Department of Citizenship and Immigration January 28, 2002

Avis, Captain Peter Director of Maritime Policy, Operations and Readiness Department of National Defence April 7, 2003

Axworthy, Dr. Thomas

Chairman, Centre for Study of Democracy Queen's University September 29, 2003

Baird, Master Corporal Keith

Bravo Squadron **CFB Kingston** May 7-9, 2002

Baker, Lieutenant-Colonel Roy Wing Logistics and Engineering Officer **CFB** Trenton June 25-27, 2002

Balnis, Richard Senior Research Officer Canadian Union of Public Employees November 18, 2002

Barbagallo, Lieutenant Jason The Black Watch

November 5-6, 2002

Barr, Colonel David E.

Commander, Canadian Special Operations Forces Command (CANSOFCOM), National Defence November 20, 2006

Barrette, Mr. Jean

Director, Security Operations, Safety and Security Group Transport Canada November 27, 2002 / December 2, 2002 / October 2, 2006

Basrur, Dr. Sheela Medical Officer of Health

City of Toronto October 30, 2003

Bastien. Commander Yves Formation Administration Officer Maritime Forces Atlantic January 22-24, 2002

Bax, Ms. Janet Director General, Programs Office of Critical Infrastructure Protection and Emergency Preparedness October 20, 2003

Badger, Captain Chris J.

Vice President, Operations, Vancouver Port Authority November 18-22, 2001

Baker, Mr. Mike

Vice-President, Corporate Management Canadian Air Transport Security Authority November 25, 2002

Baker, Phillip

Director General, Afghanistan, India, Nepal, Sri Lanka Div. Canadian International Development Agency May 29, 2006

Baltabaev, M.P., Mr. Tashpolot Kvrgvz Republic May 12, 2003

Bariteau, Lieutenant-Colonel François Commanding Officer, Canadian Forces Leadership and Recruit School, National Defence

Barrett, Major Roger R. Operational Officer, 2 RCR CFB Gagetown January 22-24, 2002

Bartley, Mr. Alan

June 1, 2005

Director General, Policy Planning and Readiness, Office of Critical Infrastructure Protection and Emergency **Preparedness** July 19, 2001

Bastien, Major-General Richard Deputy Commander of Air Assistant Chief of the Air Staff Department of National Defence

December 3, 2001

Baum, Major Nigel **CFB Kingston**

May 7-9, 2002 Beare, Brigadier-General Stuart A. Commander, Land Forces

Western Area National Defence March 7, 2005

Who the Committee Heard From

Beaton, Chief of Police Jack

City of Calgary February 1, 2007

Beattie, Lieutenant-Colonel Mark

Senior Staff Officer, Canadian Forces Support Training Group, CFB Borden June 25-27, 2002

Beers, Master Corporal Robert

Canadian Forces School of Electrical and Mechanical

Engineering CFB Borden June 25-27, 2002

Begley, Inspector J.J. (Jim) Federal Policing Service RCMP

KUMP

November 18-22, 2001

Bell, Lieutenant-Commander John

Commander, HMCS Queen

National Defence March 9, 2005

Belzile, Lieutenant-General (ret'd) Charles

Chairman

Conference of Defence Associations

October 15, 2001

Bernier, Warrant Officer Michel

5th Military Police Platoon

CFB Valcartier

September 24, 2003

Berthiaume, Lieutenant-Colonel Philip (Res)

Essex and Kent Scottish Regiment

December 1, 2004

Bildfell, Mr. Brian

Director, Ambulance Services

City of Windsor

February 27, 2003

Bishop Jr., The Honorable Sanford D.

(Democrat – Georgia)

U.S. House Select Committee on Intelligence

February 5, 2002

Beattie, Captain Davie

Canadian Parachute Centre Adjutant,

CFB Trenton

June 25-27, 2002

Beazley, Chief Frank

Halifax Regional Police

Halifax Regional Municipality

September 23, 2003

Begin, Mr. Robert

Regional Director, Quebec

Office of Critical Infrastructure Protection and Emergency

Preparedness

October 27, 2003

Belcourt, Chief Warrant Officer Mario

12th Canadian Armoured Regiment

5th Canadian Mechanized Brigade CFB Valcartier

September 24, 2003

Bell, Mr. Peter

Intelligence Analyst

Organized Crime Agency of B.C.

November 18-22, 2001

Bercuson, Dr. David J.

Director, Centre for Military and Strategic Studies

University of Calgary

April 19, 2004 and March 8, 2005

Berry, Major David

Canadian Parachute Centre Training Officer Commander

CFB Trenton

June 25-27, 2002

Berthiaume, Mr. Tim

Deputy Fire Chief

City of Windsor

February 10, 2003

Bilodeau, Mr. Ronald

Associate Secretary to the Cabinet, Deputy Minister to the

Deputy Prime Minister and Security and Intelligence

Coordinator, Privy Council Office

February 24, 2003

Bissonnette, Captain J.R.A.

Commander, 5th Military Police Platoon

CFB Valcartier

September 24, 2003

Black, Mr. Bob

Director, Office of Emergency Preparedness

City of Edmonton

January 28, 2003 / January 30, 2007

Blackmore, Mr. David

Director of Building and Property, Emergency Operations

Centre Manager City of St. John's

March 31, 2003

Blair, Master Warrant Officer Gérald

Canadian Forces School of Communications and Electronics

CFB Kingston

May 7-9, 2002

Blanchette, Lieutenant-Colonel Michael

Commander, Canadian Parachute School

CFB Trenton

June 25-27, 2002

Blight, Master Corporal

8 Air Maintenance Squadron

8 Wing Trenton

June 25-27, 2002

Bloodworth, Ms Margaret

Deputy Minister

Public Safety and Emergency Preparedness Canada

February 15, 2005

Bolton, Lieutenant Colonel Bruce D

Commanding Officer

The Black Watch, Royal Highland Regiment of Canada

November 5-6, 2001

Bonnell, Mr. R.J. (Ray)

Superintendent, Officer in Charge, Protective Services

Branch, RCMP

December 2, 2002

Bouchard, Major-General J.J.C

Commander, 1 Canadian Air Division

National Defence

March 10, 2005

Boulden, Ms Jane

Canada Research Chair in International Relations and Security

Studies

Royal Military College of Canada

November 29, 2004

Black, Lieutenant Colonel Dean C.

Commanding Officer, 403 Squadron

CFB Gagetown

January 22-24, 2002

Blair. Colonel Alan

12 Wing Commander

National Defence

May 5, 2005

Blanchard, Master Corporal Piette

Canadian Forces Dental Services School

CFB Borden

June 25-27, 2002

Bland, Professor Douglas

Chair of Defence Management Program, School of Policy

Studies

Queen's University

October 29, 2001 / May 27, 2002 / June 27, 2005

Blondin, Colonel Yvan

Wing Commander, 3 Wing Bagotville

National Defence

June 1, 2005

Boisjoli, Lieutenant-Commmander André

Commanding Officer, HMCS Glace Bay, Maritime Forces

Atlantic

January 22-24, 2002

Bon. Mr. Daniel

Director General, Policy Planning, Assistant Deputy Minister,

Policy

Department of National Defence

July 18, 2001

Boswell, Lieutenant-Colonel Brad

Acting Director of Army Doctrine

CFB Kingston

May 7-9, 2002

Boucher, Mr. Mark

National Secretary Treasurer

Canadian Merchant Service Guild

February 2, 2005

Bourgeois, Mr. Terry

District Chief, Rural District 3, Communications, Fire and

Emergency Service, Halifax Regional Municipality

September 23, 2003

Who the Committee Heard From

Boutilier, Dr. James A.

Special Advisor (Policy), Maritime Forces, Pacific Headquarters Department of National Defence

June 9, 2003

Boyer, Colonel Alain

Commander 15 Wing Moose Jaw

National Defence

March 9, 2005

Brandt, Mr. Brion

Director, Security Policy

Transport Canada

May 5, 2003 / February 12, 2007

Brochet, Inspector Pierre, Chief of Operation,

Planning Section, Montreal Police Service, City of

Montreal

September 26, 2003

Brooks, Captain Melissa

CFB Petawawa

June 25-27, 2002

Brown, Rick

Executive Director, Emergency Management Alberta

Government of Alberta

January 30, 2007

Buck, Vice-Admiral Ron

Chief of the Maritime Staff

Department of National Defence

December 3, 2001, August 14, 2002, April 7, 2003

Buenacruz, Corporal

Wing Administration

8 Wing Trenton

June 25-27, 2002

Bujold, Mr. Guy

Assistant Deputy Minister

Infrastructure Canada

February 7, 2005

Burke, Captain (N) Greg

Chief of Staff, Maritime Forces Atlantic

Department of National Defence

January 22-24, 2002

Burr. Ms Kristine

Assistant Deputy Minister, Policy

Transport Canada

February 7, 2005

Bowes, Lieutenant-Colonel Steve

Armour School, C.F.B. Gagetown

National Defence January 31, 2005

Bramah. Mr. Brian

Regional Director

Transport Canada

November 18-22, 2001

Bradley, Corporal John

Imagery Technician

17 Wing Imaging and Associate Air Force Historian, 17 Wing

Winnipeg

November 18-22, 2001

Brodeur, Vice-Admiral (Ret'd) Nigel

As an individual

March 1, 2005

Brown, Major Chris

424 Squadron, CFB Trenton

June 25-27, 2002

Bryan, Mr. Robert

Emergency Planning Coordinator

City of Vancouver

January 30, 2003

Buck, Vice-Admiral Ron

Vice Chief of the Defence Staff

National Defence

December 6, 2004

Bugslag, Mr. Bob

Executive Director, Provincial Emergency Program

Government of British Columbia

March 1, 2005

Bullock, Ms. Margaret

Manager, Security Awareness, Policy and

Regulatory Corporate Security, Air Canada

November 18-22, 2001

Burke, Mr. Sean

Research Associate, National Security Studies,

Council on Foreign Relations

February 4, 2002

Burrell, Mr. Bruce

Assistant Deputy Chief Director, Halifax Regional Fire Service, Halifax Regional Municipality

Sontombor 23 2003

September 23, 2003

Burrell, Fire Chief (William) Bruce Director of Disaster Services City of Calgary February 1, 2007

Cabana, Chief Superintendent Mike Royal Canadian Mounted Police Federal and International Operations, Director General Border Integrity October 30, 2006

Cameron, Colonel Scott
Director of Medical Policy on the staff of the Director
General Health Services (DGHS)
Department of National Defence
December 10, 2001

Campbell, Anthony Vice-President, Canadian Association for Security and Intelligence Studies June 3, 2002

Campbell, Master Corporal Steve 426 Training Squadron, 8 Wing Trenton June 25-27, 2002

Caouette, Sergeant Denis, Operational Planning Section, Montreal Police Service, City of Montreal September 26, 2003

Caron, Corporal Denis National Support Arrangements Coordinator, Coast and Airport Watch National Coordinator, Organized Crime Branch, RCMP April 7, 2003

Carroll, Lieutenant-Commander Derek HMCS Tecumseh National Defence March 8, 2005

Castonguay, Staff Sergeant Charles Unit Commander, RCMP November 5-6, 2001

Cessford, Lieutenant-Colonel Michael Acting Commader, Canadian Forces Joint Operations Group, CFB Kingston May 7-9, 2002 **Butler,** Mr. John Regional Director, Newfoundland and Labrador Canadian Coast Guard February 2, 2005

Calder, Mr. Kenneth Assistant Deputy Minister, Policy Department of National Defence November 26, 2001, August 14, 2002, April 26, 2004, October 25, 2004

Cameron, Captain Keith CFB Petawawa June 25-27, 2002

Campbell, Lieutenant-General Lloyd Commander of Air Command and Chief of the Air Staff Department of National Defence December 3, 2001

Camsell, Lieutenant-Colonel J.F. 36th Service Battalion February 2, 2005

Capstick, Colonel Mike Director, Land Personnel Strategy Patricia's Canadian Light Infantry March 10, 2005

Caron, Lieutenant-General Marc Chief of Land Staff National Defence February 7, 2005

Castillo, Corporal Marvin CFB Kingston May 7-9, 2002

Cellucci, H.E. Paul Ambassador Embassy of the United States of America to Canada August 15, 2002

Chapin, Mr. Paul Director General, International Security Bureau, Department of Foreign Affairs and International Trade February 23, 2004

APPENDIX VI Who the Committee Heard From

Charette, Mr. Serge National President Customs Excise Union Douanes Accise January 22-24, 2002

Chartrant, Lieutenant-Commander Yves Acting Commanding Officer, HMCS Huron Maritime Forces Pacific November 18-22, 2001

Christie, Mr. Ryerson Researcher, Centre for International and Security Studies York University March 21, 2005

Clapham, Superintendent, Ward D. Officer in Charge RCMP November 18-22, 2001

Clarke, Master Corporal James Gulf Squadron CFB Kingston May 7-9, 2002

Coble, The Honorable Howard Ranking Member (Republican, North Carolina) U.S. House Judiciary Committee February 7, 2002

Collenette, P.C., M.P., The Honourable David Michael Minister of Transport December 2, 2002

Connolly, Mr. Mark Head, Customs Contraband, Intelligence and Investigations Canada Border Services Agency February 23, 2004

Cooper, First Officer Russ Toronto Representative, Security Committee Air Canada Pilots Association November 4, 2002 **Chartier,** Honorary Lieutenant-Colonel Victor G., OMM, CD.
The Black Watch
November 5-6, 2002

Chow, Lieutenant Commander Robert Commanding Officer, HMCS *Unicorn* (Saskatoon) January 27, 2003

Cirincione, Mr. Joseph Senior Director, Non Proliferation Project, The Carnegie Foundation February 5, 2002

Clark, Captain Robert CO BW No.2497 Cadet Corps Head Librarian, Law Library McGill University November 5-6, 2002

Clarke, Mr. Shawn Acting Regional Director, Prince Edward Island, Office of Critical Infrastructure Protection and Emergency Preparedness October 27, 2003

Cohen, Mr. Andrew Associate Professor, School of Journalism and Communications Carleton University March 21, 2005

Connolly, Mr. Mark
Director General, Contraband and Intelligence
Services Directorate, Customs Branch
Canada Customs and Revenue Agency
February 10, 2003, September 22, 2003

Conyers, Jr., The Honorable John Ranking Member Democrat-Michigan, U.S. House Judiciary Committee February 7, 2002

Corcoran, Mr. James
Former Deputy Director, Operations
Canadian Security and Intelligence Service
October 1, 2001

Cormier, Master Seaman Michael Canadian Forces Military Police Academy CFB Borden June 25-27, 2002

Côté, Mr. Bertin Deputy Head of Mission Canadian Embassy (Washington) February 4-7, 2002

Côté, Brigadier-General Gaston Commander, Land Forces Quebec Area National Defence June 1, 2005

Coulter, Mr. Keith Chief, Communications Security Establishment February 24, 2003

Crabbe, Lieutenant-General (Ret'd) Ray Royal Military Institute of Manitoba (RMIM) March 10, 2005

Crober, Mr. Paul Regional Director for B.C. and Yukon, Emergency Mgmt. and National Security Sector, Public Safety and Emergency Preparedness Canada March 1, 2005

Crosman, Colonel John Assistant Chief of Staff Plans, Maritime Forces Pacific Headquarters National Defence January 29, 2007

Croxall, Corporal Kevin CFB Borden Administration Services, CFB Borden June 25-27, 2002

D'Avignon, Mr. Michel Director General, National Security, Policing and Security Branch, Solicitor General Canada July 19, 2001

Daigle, MSC, CD, MGen. Pierre Special Advisor to the Chief of Defence Staff Department of National Defence March 17, 2003 / February 23, 2004 Cormier, Captain Michael P. Deputy Harbour Master Vancouver Port Authority November 18-22, 2001

Côté, Master Corporal Claude Bravo Squadron CFB Kingston May 7-9, 2002

Côté, Mr. Yvan Investigator, Organized Crime Task Force, Montreal Urban Community Police Department November 5-6, 2001

Couture, Lieutenant-General Christian Assistant Deputy Minister (Human Resources-Military) Department of National Defence December 10, 2001

Creamer, Mr. Dennis Vice-President, Finance and Administration Halifax Port Authority January 22-24, 2002

Crosbie, Mr. William Director General, North America Bureau Foreign Affairs Canada April 11, 2005

Crouch, Dr. Jack Dyer Assistant Secretary of Defence, International Security Policy Office of the U.S. Secretary of Defence February 6, 2002

Cushman, Dr. Robert Chief Medical Officer of Health, City of Ottawa February 3, 2003

D'Cunha, Dr. Colin Commissioner of Public Health, Chief Medical Officer of Health, Ministry of Health and Long-Term Care, Ontario October 30, 2003

Dallaire, Gabriel Gulf Squadron, CFB Kingston May 7-9, 2002

Who the Committee Heard From

Daniels, Private Jason CFB Kingston May 7-9, 2002

Davies, Ms. Krysta M. Intelligence Analyst Specialist KPMG Investigation and Security Inc. October 01, 2001

DeCastro, Second Lieutenant. Rod The Black Watch November 5-6, 2002

Deemert, Mr. Rob Cabin Security, International Association of Machinists and Aerospace Workers August 15, 2002

Dempsey, Mr. Lawrence National Secretary Treasurer Canadian Merchant Service Guild September 22, 2003, February 2, 2005

De Riggi, Mr. Angelo Intelligence Officer Organized Crime Task Force - RCMP November 5-6, 2001

Desrosiers, Chief Warrant Officer Christian 5th Canadian Light Artillery Regiment September 24, 2003

deVries, Nicolaas C.W.O. (Ret'd) Military Bands January 31, 2005

Dewitt, Mr. David Director, Centre for International and Security Studies York University December 2, 2004

Dietrich, Chief Warrant Officer Dan Chief Warrant Officer One Canadian Air Division November 18-22, 2001 **Davidson,** Rear-Admiral Glenn V. Commander, Maritime Forces Atlantic Department of National Defence September 22, 2003

Dawe, Mr. Dick Manager, Personnel Support Programmes, Maritime Forces Pacific November 18-22, 2001

DeCuir, Brigadier-General Mike Deputy Regional Commander Canadian NORAD Region Headquarters November 18-22, 2001

Deering, Richard Chief of Police Royal Newfoundland Constabulary February 3, 2005

Dempster, Major-General Doug Director General, Strategic Planning National Defence April 11, 2005

Deschamps, Col. André Director, Continental Operations Department of National Defence May 6, 2002

Devlin, Mr. W.A. (Bill) Manager, Hub Development, Vancouver International Airport Air Canada November 18-22, 2001

Dewar, Captain (N) (Ret'd) John Member, Maritime Affairs Navy League of Canada May 12, 2003, June 2, 2003

Dickenson, Mr. Lawrence T. Assistant Secretary to the Cabinet, Security and Intelligence Privy Council Office October 29, 2001 / February 24, 2003

Dion, Corporal Yves Canadian Forces Fire Academy CFB Borden June 25-27, 2002

Ditchfield, Mr. Peter Deputy Chief Officer Organized Crime Agency of B.C. November 18-22, 2001

Doherty, Lieutenant-Colonel Brian Commanding Officer, 14 Service Battalion National Defence February 1, 2007

Douglas, Lieutenant-Colonel Brian Artillery School C.F.B. Gagetown National Defence January 31, 2005

Downton, Master Corporal Doug 426 Training Squadron 8 Wing Trenton June 25-27, 2002

Droz, Superintendent Pierre Criminal Operations RCMP November 5-6, 2001

Dufour, Major Rénald Commander, 58th Air Defence Battery CFB Valcartier September 24, 2003

Duguay, Mr. Yves Senior Director Corporate Security Risk Management Air Canada November 18-22, 2001

Dumais, Lieutenant-General Marc J. Commander, Canada Command National Defence October 2, 2006

Dunn, Major General Michael Vice Director, Strategic Plans and Policy The Pentagon February 6, 2002

Earnshaw, Commander Paul F. Commanding Officer TRINITY, Joint Ocean Surveillance Information Centre National Defence September 22, 2003 **Doge**, Ms. Trish Director, Risk and Emergency Management, City of Vancouver January 30, 2003 / January 29, 2007

Dongworth, Steve Deputy Chief of Emergency Management (Fire Department) City of Calgary February 1, 2007

Dowler, Chief Petty Officer First Class George Maritime Forces Atlantic January 22-24, 2002

Doyle, Lieutenant Colonel Bert Commanding Officer, 402 Squadron 17 Wing Winnipeg November 18-22, 2001

Duchesneau, Mr. Jacques President and Chief Executive Officer Canadian Air Transport Security Authority November 25, 2002 / October 30, 2006

Dufresne, Corporal Canadian Forces Postal Unit 8 Wing Trenton June 25-27, 2002

Dumais, Lieutenant-General Marc J. Deputy Chief of the Defence Staff National Defence June 27, 2005

Duncan, Mr. Mark Vice-President, Operations Canadian Air Transport Security Authority November 25, 2002 / October 30, 2006

Durocher, Captain Pascal Deputy Commanding Officer, 2EW Squadron, CFB Kingston May 7-9, 2002

Edmonds, Captain (N) David Chief of Staff Personnel & Training, Naval Reserve Department of National Defence September 25, 2003

Who the Committee Heard From

Egener, Mark

Managing Director, Emergency Management Alberta Government of Alberta January 30, 2007

Elliott, Mr. William

Assistant Deputy Minister, Safety and Security Group Transport Canada November 27, 2002, December 2, 2002, May 5, 2003

Ellis, Captain Cameron CFB Petawawa June 25-27, 2002

Ellis, Ms. Karen

Assistant Deputy Minister (Infrastructure and Environment), National Defence June 6, 2005

Erkebaev, M.P., The Honourable Abdygany Speaker of the Legislative Assembly Kyrgyz Republic May 12, 2003

Evraire, Lieutenant-General (Ret'd) Richard J. Conference of Defence Associations April 19, 2004

Fagan, Mr. John

Director of Intelligence and Contraband, Atlantic Region Canada Customs and Revenue Agency January 22-24, 2002

Falconer, Captain Vic

Formation Drug Education Coordinator, Formation Health Services (Pacific) Maritime Forces Pacific November 18-22, 2001

Fantino, Chief Julian Toronto Police Service May 6, 2002

Farr, Mr. Bruce Chief and General Manager, Toronto Emergency Medical Services City of Toronto October 30, 2003 Elcock, Mr. Ward

Director

Canadian Security Intelligence Service August 14, 2002, February 17, 2003

Elliott, QC, William J.S. Associate Deputy Minister Public Safety and Emergency Preparedness Canada June 19, 2006

Ellis, Colonel Jim 2nd in Command, Operation Peregrine National Defence March 1, 2005

Enger, Inspector T.G. (Tonia) Operations Officer RCMP November 18-22, 2001

Evans, Ms. Daniela Chief, Customs Border Services Canada Customs and Revenue Agency November 18-22, 2001

Fadden, Mr. Richard Deputy Clerk, Counsel and Security Intelligence Coordinator Privy Council Office October 29, 2001, January 29, 2002, August 14,

Fagan, Mr. Wayne Regional Vice-President Union of Canadian Transportation Employees (UCTE) February 2, 2005

Falkenrath, Mr. Richard Senior Director U.S. Office of Homeland Security February 7, 2002

Farmer, Mr. Rick Area Manager, Ontario East Port of Entries Citizenship and Immigration Canada May 7-9, 2002

Ferguson, Mr. Brian Assistant Deputy Minister, Veterans Services Veterans Affairs Canada January 22-24, 2002

Fergusson, Mr. James

Centre for Defence and Security Studies Department of Political Studies University of Manitoba March 10, 2005

Ferris, Mr. John

Faculty of Social Sciences, International Relations Program University of Calgary March 8, 2005

Fisher, Second Lieutenant Greg The Black Watch

November 5-6, 2002

Flack, Mr. Graham

Director of Operations, Borders Task Force Privy Council Office March 17, 2003, February 23, 2004

Fleshman, Larry

General Manager, Customer Service Toronto, Air Canada June 24, 2002

Fonberg, Mr. Robert

Deputy Secretary to the cabinet, Operations Privy Council Office March 17, 2003

Forcier, Vice-Admiral J.C.J.Y. Commander, Canada Command National Defence May 8, 2006

Fortin, Jean-Pierre 1st National Vice-President

Customs Excise Union Douanes Accise (CEUDA)

December 4, 2006

Foster, Lieutenant-Colonel Rob

Acting Commanding Officer, 8 Air Maintenance Squadron CFB Trenton
June 25-27, 2002

Fox, James

Acting Assistant Deputy Minister, Bilateral Relations Foreign Affairs Canada May 29, 2006 Fernie, Iain

Regional Security Operations Manager Air Canada June 24, 2002

Fields, Fire Chief Dave Fire Department City of Windsor

February 27, 2003

Fisher, Captain Kent

J8

CFB Kingston May 7-9, 2002

Flagel, Mr. Brian

Director, Airport Operations Canada Customs and Revenue Agency November 18-22, 2001

Flynn, Commander Steven U.S. Coast Guard and Senior Fellow National Security Studies, Council on Foreign

Relations

February 4, 2002

Forcier, Rear-Admiral J.Y. Commander, MARPAC

National Defence February 28, 2005

Forgie, Mr. John

Enforcement Supervisor, Vancouver Citizenship and Immigration Canada November 18-22, 2001

Fortin, Lieutenant-Colonel Mario

Acting Commanding Officer, 426 Squadron CFB Trenton
June 25-27, 2002

Fox, Mr. John

Member

Union of Canadian Transportation Employees (UCTE) February 2, 2005

Fox, James

Assistant Deputy Minister, Bilateral Relations Foreign Affairs and International Trade Canada December 11, 2006

Who the Committee Heard From

Francis, Warrant Officer Charles

Bravo Squadron CFB Kingston May 7-9, 2002

Frappier, Lieutenant-Colonel Jean

Commander, 12th Canadian Armoured Regiment, 5th Canadian Mechanized Brigade, CFB Valcartier September 24, 2003

Fraser, Ms. Sheila

Auditor General of Canada

December 10, 2001, December 6, 2004

Frerichs. Private Travis

CFB Kingston May 7-9, 2002

Froeschner, Major Chris

Acting Commanding Officer, 429 Squadron CFB Trenton
June 25-27, 2002

Gagné, Major M.K.

Officer Commanding Administration Company, 2nd Battalion Princess National Defence March 10, 2005

Gagnon, Mr. Jean-Guy, Deputy Director, Investigations Department, Montreal Police Service, City of Montreal September 26, 2003

Garnett, Vice-Admiral (Ret'd) Gary L. National Vice-President for Maritime Affairs Navy League of Canada May 12, 2003

Gauthier, Corporal 2 Air Movement Squadron 8 Wing Trenton

June 25-27, 2002

Gauvin, Major Bart Directorate of Army Training 5 CFB Kingston May 7-9, 2002 Frappier, Mr. Gerry

Director General, Security and Emergency Preparedness and Chair of Interdepartmental Marine Security Working Group, Transport Canada April 7, 2003, June 2, 2003, February 25, 2004

Fraser, Rear-Admiral Jamie D.

Commander

Maritime Forces Pacific November 18-22, 2001

Frederick, Corporal

8 Air Maintenance Squadron 8 Wing Trenton June 25-27, 2002

Fries, Mr. Rudy

Emergency Management Coordinator, London-Middlesex Community City of London March 31, 2003

Gadula, Mr. Charles

Director General, Fleet Directorate, Marine Services, Department of Fisheries and Oceans Canada April 7, 2003

Gagnon, Major Alain

Commanding Officer, Canadian Forces Recruiting Centre, Montreal June 25-27, 2002

Gardner, Major Craig Mechanized Brigade Group CFB Petawawa June 25-27, 2002

Garnon, Lieutenant-Commander Daniel Comptroller, National Defence September 25, 2003

Gauthier, Lieutenant-General J.C.M. Commander, Canadian Expeditionary Forces Command National Defence May 8, 2006 / May 29, 2006

Gauvin, Commodore Jacques J. Acting Assistant Chief of the Maritime Staff Department of National Defence December 3, 2001

Giasson, Mr. Daniel

Director of Operations, Security and Intelligence Privy Council Office January 8, 2002 / January 29, 2002

Giffin-Boudreau, Ms. Diane

Acting Director General, Atlantic Region, Department of Citizenship and Immigration Canada September 22, 2003

Gilbert, Gary D.

Senior Vice President – Americas Hutchison Port Holdings November 6, 2006

Gilkes, Lieutenant-Colonel B.R. Kings Own Calgary Regiment

National Defence

March 8, 2005 / February 1, 2007

Gimblett, Mr. Richard

Research Fellow Centre for Foreign Policy Studies Dalhousie University February 21, 2005

Girouard, Rear-Admiral Roger, OMM, CD

Commander, Maritime Forces Pacific (MARPAC)

National Defence January 29, 2007

Glencross, Captain, Reverend Bruce

Regimental Padre Minister

The Black Watch

November 5-6, 2002

Goatbe, Mr. Greg

Director General, Program Strategy Directorate Canada Customs and Revenue Agency

January 28, 2002

Goodall, Superintendent Bob

Bureau Commander, Field and Traffic Support Bureau Ontario Provincial Police

October 30, 2003

Gotell, Chief Warrant Officer Peter

Operations

12 Wing Shearwater

January 22-24, 2002

Gibbons, The Honorable Jim

Member (Republican – Nevada)

U.S. House Select Committee on Intelligence

February 6, 2002

Gilbert, Chief Warrant Officer Daniel

Department of National Defence

December 3, 2001

Gilbert, Staff Superintendent Emory

Operational Support Services, Toronto Police

Services, City of Toronto

October 30, 2003

Gilmour, Wendy

Director, Peacekeeping and Operations Group, Stabilization

and Reconstruction Task Force

Foreign Affairs Canada

May 29, 2006

Girouard, Commodore Roger

Commander, CANFLTPAC

National Defence

February 28, 2005

Giroux, Master Corporal

Canadian Parachute Centre

8 Wing Trenton

June 25-27, 2002

Gludo, Colonel J.D.

Commander, 41 Canadian Brigade Group of Canada,

National Defence

March 8, 2005

Goetz, Captain J.J.

Mechanized Brigade Group

CFB Petawawa

June 25-27, 2002

Goss. The Honorable Porter

Chair (Republican - Florida)

U.S. House Select Committee on Intelligence

February 6, 2002

Goupil, Inspector Pierre

Direction de la protection du territoire, Unité d'urgence, région ouest, Sûreté du Québec

November 5-6, 2001

Who the Committee Heard From

Graham, Master Corporal 8 Air Maintenance Squadron 8 Wing Trenton June 25-27, 2002

Granatstein, Dr. Jack

Chair, Council for Defence and Security in the 21st Century May 27, 2002, April 28, 2004

Grant, Captain Timothy J.
Commander, 1 Canadian Mechanized
Brigade Group
National Defence
March 7, 2005

Green, Major Bill

Commanding Officer, Saskatchewan Dragoons (Moose Jaw) January 27, 2002

Gregory, Leading Seaman Wing Administration Human Resources Department 8 Wing Trenton June 25-27, 2002

Guevremont, Benoît Gulf Squadron CFB Kingston May 7-9, 2002

Gutteridge, Mr. Barry

Commissioner, Department of Works and Emergency Services City of Toronto October 30, 2003

Haché, Colonel Mike Director, Western Hemisphere Policy National Defence April 11, 2005

Hall, Major Steve Deputy Commandant, Canadian Forces School of Communications and Electronics CFB Kingston May 7-9, 2002 **Graham,** Erin Manager Safety, Capital District Health

Halifax Regional Municipality September 23, 2003

Grandy, Mr. Brian

Acting Regional Director, Atlantic Region Canada Customs and Revenue Agency January 22-24, 2002

Gray, P.C., Right Honourable Herb Chair and Commissioner, Canadian Section, International Joint Commission March 29, 2004

Grégoire, Mr. Marc

Assistant Deputy Minister, Safety and Security Group Transport Canada February 25, 2004 / October 2, 2006 / February 12, 2007

Grue, Superintendent Tom Edmonton Police Services City of Edmonton January 28, 2003

Guindon, Captain (N) Paul Submarine Division Maritime Forces Atlantic January 22-24, 2002

Gupta, Lieutenant-Colonel Ranjeet K.
Canadian Forces School of Military Engineering, C.F.B.
Gagetown
National Defence
January 31, 2005

Haeck, Lieutenant Colonel Ken F. Commandant of Artillery School IFT CFB Gagetown January 22-24, 2002

Hamel, MWO Claude Regimental Sergeant-Major Designate The Black Watch November 5-6, 2002

Hammond, Major Lee

Artillery CFB Petawawa June 25-27, 2002

Hapgood, Warrant Officer John Canadian Parachute Centre 8 Wing Trenton June 25-27, 2002

Harrison, Captain (N) R.P. (Richard)

Assistant Chief of Staff, Operations, Maritime Forces Pacific

November 18-22, 2001

Harvey, Lieutenant-Commander Max

Commander H.M.C.S. Cabot February 2, 2005

Hatton, Commander Gary Commanding Officer, HMCS Montreal Maritime Forces Atlantic January 22-24, 2002

Hazelton, LCol Spike C.M.

Commandant of Armour School C2 SIM, CFB Gagetown January 22-24, 2002

Heath, Captain (N) Jim

Assistant Chief of Staff Operations (J3), Maritime Forces Pacific Headquarters National Defence January 29, 2007

Heinbecker, Paul

Former Ambassador to the U.N.

As an individual February 21, 2005

Heisler, Mr. Ron

Canada Immigration Centre, Halifax Department of Citizenship and Immigration Canada September 22, 2003

Hendel, Commodore (Ret'd) Hans Consultant, Canadian Forces Staff College April 28, 2003 **Hansen,** Superintendent Ken Director of Federal Enforcement

RCMP

April 7, 2003, June 9, 2003

Harlick, Mr. James

Assistant Deputy Minister, Office of Critical Infrastructure Protection and Emergency Preparedness, National Defence July 19, 2001, October 20 & 27, 2003

Hart, Corporal

Wing Administration Human Resources Department, 8 Wing Trenton

June 25-27, 2002

Haslett, Lieutenant Adam

Logistics Officer & Course Commander, The Black Watch November 5-6, 2002

Haydon, Mr. Peter T.

Senior Research Fellow, Center for Foreign Policy Studies Dalhousie University

April 28, 2003, February 1, 2005

Hearn, Brigadier-General T.M.

Director General, Military Human Resources Policy and Planning Department of National Defence

December 10, 2001

Hébert, Barbara

Regional Director, Customs, Canada Customs and Revenue Agency June 24, 2002

Heimann, Dr. Alan Medical Officer of Health City of Windsor February 27, 2003

Henault, General Raymond R.

Chief of the Defence Staff National Defence December 3, 2001

Henderson, Major Georgie

Deputy A3 CFB Trenton June 25-27, 2002

Who the Committee Heard From

Henneberry, Lieutenant-Commander, HMCS Nanaimo Maritime Air Force Command Pacific

November 18-22, 2001

Henschel, Superintendent Peter Federal Services Directorate RCMP June 9, 2003

Hickey, Mr. John MHA, Lake Melville House of Assembly of Newfoundland and Labrador February 3, 2005

Hildebrand, Sergeant F.D. (Fred) "H" Division, Criminal Operations Branch, RCMP September 22, 2003

Hill, Mr. Dave Chair, Capital Region Emergency Preparedness Partnership City of Edmonton January 28, 2003

Hillmer, Dr. Norman Professor of History and International Affairs. Carleton University November 1, 2004

Hines, Colonel Glynne Director, Air Information Management, Chief of the Air Staff National Defence July 18, 2001

Hooper, Jack
Deputy Director (Operations)
Canadian Security Intelligence Service
May 29, 2006
Hornbarger, Mr. Chris
Director
U.S. Office of Homeland Security
February 7, 2002

Howard, Brigadier-General A.J. Director General Operations, Strategic Joint Staff National Defence October 16, 2006 / November 20, 2006 **Henry,** Dr. Bonnie Associate Medical Officer of Health City of Toronto October 30, 2003

Herbert, Mr. Ron Director General, National Operations Division Veterans Affairs Canada January 22-24, 2002

Hickey, Captain (N) Larry Assistant Chief of Staff Plans and Operations (Maritime Forces Atlantic) National Defence June 16, 2003

Hildebrandt, Captain Gerhard Canadian Parachute Centre 8 Wing Trenton June 25-27, 2002

Hillier, General Rick Chief of the Defence Staff National Defence May 30, 2005 / June 21, 2006

Hincke, Colonel Joe Commanding Officer 12 Wing Shearwater January 22-24, 2002

Holman, Major-General (Ret'd) Fraser Canadian Forces College Toronto June 27, 2005

Horn, Lieutenant-Colonel Bernd CFB Petawawa June 25-27, 2002

Hounsell, Master Corporal Scott Candian Forces School of Electronical and Mechanical Engineering, CFB Borden June 25-27, 2002

Howe, Corporal Kerry CFB Borden Technical Services CFB Borden June 25-27, 2002

Huebert, Dr. Rob

Professor, Dept. of Political Science University of Calgary March 8, 2005

Hunter, The Honorable Duncan Ranking Member, Subcommittee on Military Procurement (Republican – California) U.S. House Armed Services Committee February 6, 2002

Hynes, Major A.G. Air Reserve Coordinator (East) 1 Canadian Air Division Headquarters Feburary 1, 2005

Idzenga, Major Ray Commanding Officer, Gulf Squadron CFB Kingston May 7-9, 2002

Inkster, Mr. Norman President, KPMG Investigation and Security Inc. Former Commissioner, RCMP October 1, 2001

Irwin, Brigadier-General S.M. Chief Executive Officer of the Canadian Forces Housing Agency National Defence June 6, 2005

Jackson, Major David J3 CFB Kingston May 7-9, 2002

Janelle, Private Pascal CFB Kingston May 7-9, 2002

Jean, Mr. Daniel Assistant Deputy Minister, Policy and Program Development, Department of Citizenship and Immigration Canada March 17, 2003

Jeffery, Lieutenant General (ret'd) Mike June 27, 2005

Hunt, Mr. Baxter Embassy of the United States of America to Canada August 15, 2002

Hupe, Master Corporal Bryan 426 Training Squadron 8 Wing Trenton June 25-27, 2002

Iatonna, Mr. Mario Municipal Engineer City of Windsor December 1, 2004

Inglis, Brian General Manager/Task Force Leader Vancouver Fire & Rescue Services January 29, 2007

Innis, Captain Quentin Instructor, Canadian Parachute Centre 8 Wing Trenton June 25-27, 2002

Issacs, Sergeant Tony Search and Rescue Technician Maritime Forces Atlantic January 22-24, 2002

Jackson, Ms. Gaynor Manager, Military Family Support Centre, Maritime Forces Pacific November 18-22, 2001

Jarvis, Vice-Admiral Greg Assistant Deputy Minister (Human Resources Military) February 21, 2005

Jeffery, Lieutenant General M.K. Chief of the Land Staff Department of National Defence December 3, 2001 / August 14, 2002

Jenkins, Wilma Director, Immigration Services Citizenship and Immigration Canada June 24, 2002

APPENDIX VI Who the Committee Heard From

Jestin, Colonel Ryan

Commander, C.F.B. Gagetown 3 Area Support Group National Defence January 31, 2005

Johns, Fred

General Manager, Logistics and Processing Strategies Canada Post August 15, 2002

Johnson, Captain Wayne J7, CFB Kingston May 7-9, 2002

Johnston, Chief Cal Chief of Police City of Regina January 27, 2003

Jolicoeur, Mr. Alain

President, Department of Public Safety and Emergency Preparedness Canada Canada Border Services Agency February 23, 2004, April 11, 2005

Joncas, Chief Petty Officer First Class Serge Maritime Command Chief Petty Officer National Defence December 3, 2001

Jurkowski, Brigadier-General (ret'd) David Former Chief of Staff, Joint Operations Department of National Defence October 1, 2001

Kasurak, Mr. Peter Principal

Office of the Auditor General of Canada December 10, 2001, December 6, 2004

Keane, Mr. John Deputy Assistant Secretary, Bureau of Western Hemisphere Affairs U.S. Department of State February 6, 2002

Kee, Mr. Graham Chief Security Officer Vancouver Port Authority November 18-22, 2001 Job, Mr. Brian Chair, Institute of International Relations University of British Columbia March 1, 2005

Johnson, Captain Don President Air Canada Pilots Association November 4, 2002

Johnston, Rear-Admiral (Ret'd) Bruce As an individual April 28, 2003

Johnston, Mr. Kimber Director General, Stragetic Policy Public Safety and Emergency Preparedness Canada February 15, 2005

Jolicoeur, Alain President Canada Border Services Agency June 19, 2006

Judd, Jim Director Canadian Security Intelligence Service June 19, 2006

Kalincak, Captain Karl Adjutant, 33 Field Engineer Squadron National Defence February 1, 2007

Kavanagh, Paul Regional Director, Security and Emergency Planning Transport Canada June 24, 2002

Keating, Dr. Tom Professor, Department of Political Science University of Alberta March 7, 2005

Kelly, Mr. James C. As an individual May 26, 2003

Kelly, Chief Warrant Officer Michael The Black Watch November 5-6, 2002

Kennedy, Mr. Paul E

Senior Assistant Deputy Solicitor General, Policy Branch, Public Safety and Emergency Preparedness Canada February 15, 2005

Kerr, Captain Andrew CD The Black Watch November 5-6, 2002

Khokhar, Mr. Jamal Minister-Counsellor (Congressional Affairs) Canadian Embassy (Washington) February 4, 2002

King, Lieutenant-Colonel Colin Commanding Officer, Royal Regina Rifles (Regina) January 27, 2003

King, Vice-Admiral (Ret'd) Jim Vice-President, Atlantic CFN Consultants May 5, 2005

Kloster, Mr. Deryl Emergency Response Department City of Edmonton January 28, 2003

Koch, Major Pat J5, CFB Kingston May 7-9, 2002

Knapp, Corporal Raymond CFB Borden Technical Services June 25-27, 2002

Krause, Lieutenant Colonel Wayne 423 Maritime Helicopter Squadron 12 Wing Shearwater January 22-24, 2002

Kelly, Lieutenant Colonel W.J.
Force Planning and Program Coordination, Vice Chief of the Defence Staff, National Defence July 18, 2001

Kennedy, Mr. Paul

Senior Assistant Deputy Solicitor General, Solicitor General of Canada January 28, 2002, February 24, 2003

Keyes, Mr. Bob Senior Vice-President, International Canadian Chamber of Commerce December 1, 2004

Kiloh, Inspector D.W. (Doug) Major Case Manager, RCMP November 18-22, 2001

King, Vice-Admiral (Ret'd) James As an individual May 12, 2003

Kinney, Laureen Director General, Marine Security Transport Canada February 12, 2007

Kobolak, Mr. Tom

Senior Program Officer, Contraband and Intelligence Canada Customs and Revenue Agency April 7, 2003

Koop, Mr. Rudy Research Adviser, Canadian Section International Joint Commission March 29, 2004

Kneale, Mr. John Executive Coordinator, Task Force on Enhanced Representation in the U.S Foreign Affairs Canada April 11, 2005

Krueger, Master Corporal 8 Air Maintenance Squadron 8 Wing Trenton June 25-27, 2002

Who the Committee Heard From

Kubeck, Commander Kimberley

Naval Control of Shipping Intelligence, Department of

National Defence September 25, 2003

Kurzynski, Major Perry

Search and Rescue Operations Centre

Maritime Forces Atlantic

January 22-24, 2002

Lachance, Mr. Sylvain

A/Director General, Fleet

Canadian Coast Guard

February 17, 2003

Lacroix, Colonel Jocelyn P.P.J.

Commander, 5th Canadian Mechanized Brigade Group, CFB

Valcartier

September 24, 2003

Laflamme, Mr. Art

Senior Representative

Air Line Pilots Association, International

August 14, 2002

Lafrenière, Major Luc

Commander, Headquarters and Signal Squadron

CFB Valcartier

September 24, 2003

Lait, Commander K.B.

Commander, Directorate of Quality of Life,

DQOL 3 - Accommodation Policy Team Leader, National

Defence

June 6, 2005

Lamb, John

Deputy Chief, Fire Rescue

City of Edmonton

January 30, 2007

Landry, LCol (Ret'd) Rémi

International Security Study and Research Group

University of Montreal

June 2, 2005

Langelier, Mr. André

Director, Emergency and Protective Services, City of

Gatineau

February 3, 2003

Kummel, Colonel Steff J.

Wing Commander, 17 Wing Winnipeg

National Defence

March 10, 2005

Kwasnicki, Corporal Anita

CFB Kingston

May 7-9, 2002

Lacroix, Chief Warrant Officer Greg

Army Regimental Sergeant Major

National Defence

February 26, 2007

Lacroix, Colonel Roch

Chief of Staff, Land Force Atlantic Area

National Defence

May 6, 2005

LaFrance, Mr. Albert

Director, Northern New Brunswick District

Canada Customs and Revenue Agency

January 22-24, 2002

Laing, Captain (Navy) Kevin

Director, Maritime Strategy, Chief of Maritime Staff,

National Defence

July 18, 2001

Lalonde, Major John

Air Reserve Coordinator (Western Area)

National Defence

March 8, 2005

Landry, Chief Warrant Officer André

1st Battalion, 22nd Royal Regiment

CFB Valcartier

September 24, 2003

Landry, Inspector Sam

Officer in Charge, Toronto Airport Detachment

RCMP

June 24, 2002

Laprade, CWO Daniel

Headquarters and Signal Squadron

CFB Valcartier

September 24, 2003

Laroche, Colonel J.R.M.G. National Defence May 2, 2005

Last, Colonel David Registrar Royal Military College of Canada November 29, 2004

LeBoldus, Mr. Mick Chief Representative at the NATO Flight Training Centre Bombardier Aerospace March 9, 2005

Lefebvre, Denis Assistant Commissioner, Customs Branch Canada Customs and Revenue Agency May 6, 2004, February 10, 2003

Legault, Mr. Albert Université du Québec à Montréal (UQAM) February 21, 2005

Lenton, Assistant Commissioner W.A. (Bill) RCMP January 28, 2002, June 9, 2003

LePine, Mr. Peter Inspector, Halifax Detachment RCMP September 23, 2003

Leslie, Lieutenant-General Andrew Chief of the Land Staff National Defence February 26, 2007

Lessard, Brigadier-General J.G.M. Commander, Land Forces Central Area December 2, 2004

Levy, Mr. Bruce Director, U.S. Transboundary Division Department of Foreign Affairs and International Trade January 28, 2002 Larrabee, Mr. Bryan Emergency Social Services Coordinator, Board of Parks and Recreation, City of Vancouver January 30, 2003

Leblanc, Ms. Annie Acting Director, Technology and Lawful Access Division, Solicitor General of Canada July 19, 2001

Lefebvre, Mr. Denis Executive Vice-President Canada Border Services Agency February 7, 2005

Lefebvre, Mr. Paul President, Local Lodge 2323 International Association of Machinists and Aerospace Workers August 15, 2002

Leighton, Lieutenant-Commander John J1 CFB Kingston May 7-9, 2002

Leonard, Lieutenant-Colonel S.P. Royal Newfoundland Regiment (1st Battalion) February 2, 2005

Lerhe, Commodore E.J. (Eric) Commander, Canadian Fleet Pacific Maritime Forces Pacific November 18-22, 2001

Leslie, Major-General Andrew National Defence November 29, 2004

Lester, Mr. Michael Executive Director, Emergency Measures Organization Nova Scotia Public Safety Anti-Terrorism Senior Officials Committee September 23, 2003

Lichtenwald, Chief Jack Regina Fire Department City of Regina January 27, 2003

Who the Committee Heard From

Lilienthal, Lieutenant-Colonel Mark

Senior Staff Officer

Canadian Forces Support Training Group

CFB Borden

June 25-27, 2002

Loeppky, Deputy Commissioner Garry

Operations

RCMP

October 22, 2001 / December 2, 2002

Loschiuk, Ms Wendy

Principal

Office of the Auditor General of Canada

December 6, 2004

Lucas, Lieutenant-General Steve

Chief of the Air Staff

National Defence

February 26, 2007

Luciak, Mr. Ken

Director, Emergency Medical Services City of Regina

January 27, 2003

Lupien, Chief Petty Officer First Class R.M.

Canadian Forces Chief Warrant Officer

Department of National Defence

December 3, 2001

Macaleese, Lieutenant-Colonel Jim

Commander

9 Wing (Gander)

February 2, 2005

Macdonald, Lieutenant-General (Ret'd) George

CFN Consultants Ottawa

June 27, 2005

MacKay, The Honourable Peter

Minister of Foreign Affairs

May 29, 2006

MacKenzie, Major-General (Ret'd) Lewis

As an individual

May 3, 2004, December 6, 2004

Lloyd, Captain (N) Ron

Director General, Maritime Force Development

National Defence

February 26, 2007

Logan, Major Mike

Deputy Administration Officer, Canadian Forces Support

Training Group

CFB Borden

June 25-27, 2002

Lucas, Brigadier-General Dwayne

Director General – Aerospace Equipment Program

Management

National Defence

June 27, 2005

Lucas, Major General Steve

Commander One Canadian Air Division, Canadian

NORAD Region Headquarters

November 18-22, 2001

Luloff, Ms. Janet

A/Director, Regulatory Affairs, Safety and Security

Group, Transport Canada

November 27, 2002, December 2, 2002

Lyrette, Private Steve

CFB Kingston

May 7-9, 2002

Macdonald, Lieutenant-General George

Vice Chief of the Defence Staff

Department of National Defence

January 28, 2002, May 6, 2002, August 14, 2002,

February 23, 2004

Mack, Rear Admiral Ian

Defence Attaché

Canadian Embassy (Washington)

February 4, 2002

MacKay, Major Tom

The Black Watch

November 5-6, 2002

MacIsaac, Captain (N) Roger

Base Commander, CFB Halifax

National Defence

May 6, 2005

MacLaughlan, Superintendent C.D. (Craig), Officer in Charge, Support Services ``H" Division, RCMP September 22, 2003

MacLean, Vice-Admiral Bruce Chief of Maritime Staff National Defence February 14, 2005

Macnamara, Mr. W. Donald Senior Fellow Queen's University November 29, 2004

MacQuarrie, Captain Don J6 CFB Kingtson May 7-9, 2002

Magee, Mr. Andee Dog Master Canada Customs and Revenue Agency May 7-9, 2002

Maillet, Acting School Chief Warrant Officer Joseph Canadian Forces School of Communications and Electronics, CFB Kingston May 7-9, 2002

Maisonneuve, Major-General J.O. Michel Assistant Deputy Chief of Defence Staff October 22, 2001

Malec, Mr. George Assistant Harbour master Halifax Port Authority January 22-24, 2002

Mandel, His Worship Mayor Stephen City of Edmonton January 30, 2007

Manning, Corporal Rob CFB Borden Technical Services CFB Borden June 25-27, 2002

Manuel, Mr. Barry Coordinator, Emergency Measures Organization, City of Halifax May 6, 2005 / September 23, 2003 MacLaughlan, Mr. Craig Executive Director, Emergency Measures Organization Province of Nova Scotia May 6, 2005

MacLeod, Colonel Barry W. Commander 3 Area Support Group CFB Gagetown January 22-24, 2002

Macnamara, Brigadier-General (ret'd) W. Don, President, Conference of Defence Associations Institute May 3, 2004

Maddison, Vice Admiral.Greg Deputy Chief of the Defence Staff National Defence May 5, 2002, February 14, 2005

Maher, Lieutenant Earl 4 ESR CFB Gagetown January 21-24, 2002

Maines, Warren Director, Customer Service Air Canada June 4, 2002

Malboeuf, Corporal Barry CFB Kingston May 7-9, 2002

Mallory, Mr. Dan Chief of Operations for Port of Lansdowne Canada Customs and Revenue Agency May 7-9, 2002

Mandel, Mr. Stephen Deputy Mayor and Councillor City of Edmonton January 28, 2003

Manson, General (Ret'd) Paul D. Conference of Defence Associations (Ottawa) June 27, 2005

Marcewicz, Lieutenant-Colonel Base Commander, CFB Edmonton National Defence March 7, 2005

Who the Committee Heard From

Marsh, Howie

Conference of Defence Associations (Ottawa) June 27, 2005

Martin, Mr. Ronald

Emergency Planning Coordinator City of Vancouver January 30, 2003, March 1, 2005

Mason, Mr. Dwight

Joint Chief of Staff, U.S. Chair, Permanent Joint Board on Defence The Pentagon February 6, 2002

Massicotte, Ms Olga

Regional Director General/Atlantic Veterans Affairs Canada January 22-24, 2002

Matte, Colonel Perry 14 Wing Commander National Defence May 5, 2005

Mattiussi, Mr. Ron

Director of Planning and Corporate Services City of Kelowna March 1, 2005

McAdam, Lieutenant-Colonel Pat Tactics School, C.F.B. Gagetown National Defence January 31, 2005

McCuaig, Mr. Bruce Assistant Deputy Minister Policy, Planning and Standards Division Ontario Ministry of Transportation December 1, 2004

McGarr, Kevin

Canadian Air Transport Security Authority Vice-President and Chief Technology Officer October 30, 2006

McInenly, Mr. Peter Vice-President, Business Alignment Canada Post August 15, 2002 Martin, Ms Barbara

Director, Defence and Security Relations Division, Foreign Affairs Canada April 11, 2005

Mason, Lieutenant-Colonel Dave

Commanding Officer, 12 Air Maintenance Squadron, 12 Wing Shearwater January 22-24, 2002

Mason, Ms. Nancy

Director, Office of Canadian Affairs, Bureau of Western Hemisphere Affairs U.S. Department of State February 06, 2002

Matheson, Corporal 2 Air Movement Squadron 8 Wing Trenton June 25-27, 2002

Mattie, Chief Warrant Officer Fred 12 Air Maintenance Squadron 12 Wing Shearwater January 22-24, 2002

Maude, Master Corporal Kelly 436 Transport Squadron 8 Wing Trenton June 25-27, 2002

McCoy, Chief Warrant Officer Daniel Support Unit, 430th Helicopters Squadron CFB Valcartier September 24, 2003

McDonald, Corporal Marcus Canadian Forces Medical Services School CFB Borden June 25-27, 2002

McIlhenny, Mr. Bill Director for Canada and Mexico U.S. National Security Council February 7, 2002

McKeage, Mr. Michael Director of Operations, Emergency Medical Care Halifax Regional Municipality September 23, 2003

McKerrell, Mr. Neil

Chief, Emergency Management Ont. Ontario Ministry of Community Safety and Correctional Services October 30, 2003

McKinnon, Lieutenant-Colonel DB P.E.I. Regiment

February 1, 2005

McLean, Corporal Wing Operations 8 Wing Trenton June 25-27, 2002

McLellan, Mr. George Chief Administrative Officer Halifax Regional Municipality September 23, 2003

McManus, Lieutenant-Colonel J.J. (John), Commanding Officer, 443 (MH) Squadron, Maritime Air Force Command Pacific November 18-22, 2001

McNeil, Commodore Daniel Vice Chief of the Defence Staff Department of National Defence July 18, 2001

McRae, Robert

Director General, International Security Bureau Foreign Affairs and International Trade Canada December 11, 2006

Mean, Master Corporal Jorge Canadian Forces School of Aerospace Technology and Engineering June 25-27, 2002

Melançon, Lieutenant-Colonel René Infantry School C.F.B. Gagetown National Defence January 31, 2005 **McKinnon,** Chief David P. Chief of Police

Halifax Regional Police Force January 22-24, 2002

McLaughlin, Michael J.

Canadian Air Transport Security Authority Vice-President and Chief Financial Officer October 30, 2006

McLellan, The Honourable Anne, P.C. M.P. Deputy Prime Minister and Minister of Public Safety and Emergency Preparedness February 15, 2005 & April 11, 2005

McLeod, Mr. Dave Lead Station Attendant International Association of Machinists and Aerospace Workers August 15, 2002

McNeil, Rear-Admiral Dan Commander, Maritime Forces Atlantic National Defence May 6, 2005

McNeil, Commodore Daniel Director, Force Planning and Program Coordination, Vice Chief of the Defence Staff Department of National Defence July 18, 2001

McRoberts, Mr. Hugh Assistant Auditor General Office of the Auditor General of Canada December 6, 2004

Meisner, Mr. Tim Director, Policy and Legislation, Marine Programs Directorate Canadian Coast Guard February 17, 2003, April 7, 2003

Melis, Ms. Caroline Director, Program Development, Department of Citizenship and Immigration Canada March 17, 2003

Who the Committee Heard From

Mercer, Mr. Wayne

Acting First Vice-President, Nova Scotia District Branch, (CEUDA)

January 22-24, 2002

Michaud, Mr. Jean-Yves, Deputy Director, Administrative Support Directorate, City of Montreal September 26, 2003

Miller, Lieutenant-Colonel Commander, 10th Field Artillery Regiment, RCA National Defence March 9, 2005

Milner, Dr. Marc

Director, Military and Strategic Studies Program University of New Brunswick January 31, 2005

Mitchell, Mr. Barry Director, Nova Scotia District

Canada Customs and Revenue Agency

January 22-24, 2002

Mogan, Mr. Darragh

Director General, Program and Service Policy Division, Veterans Services Veterans Affairs Canada January 22-24, 2002

Morency, André

Regional Director General, Ontario Region, Transport Canada June 24, 2002

Morton, Dr. Desmond

Professor University of McGill November 15, 2004

Mulder, Mr. Nick

President, Mulder Management Associates June 9, 2003

Munger, Chief Warrant Officer JER Office of Land Force Command Department of National Defence December 03, 2001 Merpaw, Ms. Diane

Acting Deputy Director, Policy Development and Coordination
Citizenship and Immigration Canada
April 7, 2003

Middlemiss, Professor Danford W. Department of Political Science Dalhousie University
May 12, 2003, May 5, 2005

Miller, Mr. Frank

Senior Director, President's Adviser on Military Matters U.S. National Security Council February 7, 2002

Minto, Mr. Shahid Assistant Auditor General Office of the Auditor General of Canada December 10, 2001

Mitchell, Brigadier General Greg Commander Land Forces Atlantic Area January 22-24, 2002

Moran, Ron National President Customs Excise Union Douanes Accise (CEUDA) December 4, 2006

Morris, Ms. Linda Director, Public Affairs Vancouver Port Authority November 18-22, 2001

Moutillet, Lieutenant-Commander Mireille Senior Staff Officer Policy National Defence September 25, 2003

Mundy, Lieutenant-Commander Phil Executive Officer H.M.C.S. Queen Charlotte February 1, 2005

Munroe, Ms. Cathy Regional Director of Cutsoms for Northern Ontario Canada Customs and Revenue Agency May 7-9, 2002

Murphy, Captain (N) R.D. (Dan) Deputy Commander, Canadian Fleet Pacific Maritime Forces Pacific November 18-22, 2001

Murray, Major James Commandant, Canadian Forces Fire Academy CFB Borden June 25-27, 2002

Mushanski, Lieutenant Commander Linda Commanding Officer HMCS *Queen* (Regina) January 27, 2003

Nelligan, Mr. John Patrick Senior Partner, Law Firm of Nelligan O'Brien Payne LLP, Ottawa December 2, 2002

Neville, Lieutenant-Colonel Shirley Wing Administration Officer, Acting Wing Commander, 17 Wing 17 Wing Winnipeg November 18-22, 2001

Newton, Captain John F. Senior Staff Officer, Operations Maritime Forces Atlantic January 22-24, 2002

Nikolic, Mr. Darko District Director, St.Lawrence District Canada Customs and Revenue Agency May 7-9, 2002

Nordick, Brigadier-General Glenn Deputy Commander, Land Force Doctrine and Training Systems, CFB Kingston May 7-9, 2002

Normoyle, Ms. Debra Director General, Enforcement Branch Department of Citizenship and Immigration Canada April 7, 2003

Nossal, Dr. Kim Richard Professor and Head, Political Studies Department Queen's University November 29, 2004 **Murray,** Ms. Anne C. Vice President, Community and Environmental Affairs, Vancouver International Airport Authority

November 18-22, 2001

Murray, Admiral (Ret'd) Larry Deputy Minister Veterans Affairs Canada January 22-24, 2002

Narayan, Mr. Francis Detector Dog Service Canada Customs and Revenue Agency November 18-22, 2001

Neumann, Ms. Susanne M. Compliance Verification Officer Customs – Compliance Mgt. Division Canada Customs and Revenue Agency November 18-22, 2001

Newberry, Mr. Robert J. Principal Director, Territorial Security The Pentagon February 06, 2002

Niedtner, Inspector Al Vancouver Police, Emergency Operations and Planning Sector City of Vancouver January 30, 2003

Noël, Chief Warrant Officer Donald 5th Field Ambulance CFB Valcartier September 24, 2003

Norman, Mr. Mark
President of Daimler-Chrysler and Chair of the Infrastructure
Committee
Canadian Automotive Partnership Council
December 1, 2004

Normoyle, Ms. Debra Head, Immigration Enforcement Canada Border Services Agency February 23, 2004

Nymark, Ms. Christine Associate Assistant Deputy Minister Transport Canada January 28, 2002

Who the Committee Heard From

O'Bright, Mr. Gary

Director General, Operations

Office of Critical Infrastructure Protection and

Emergency Preparedness

July 19, 2001, October 20, 2003

O'Hanlon, Mr. Michael

Senior Fellow, Foreign Policy Studies

The Brookings Institution

February 5, 2002

Olchowiecki, Private Chrissian

CFB Kingston

May 7-9, 2002

Orr, Major Ken

Senior Staff Officer, Attraction Canadian Forces Recruiting

Group

CFB Borden

June 25-27, 2002

Ouellet, Chief Warrant Officer J.S.M.

5th Canadian Mechanized Brigade Group

CFB Valcartier

September 24, 2003

Ouellette, Lieutenant-Colonel Bernard

Commander, 2nd Battalion, 22nd Royal Regiment,

CFB Valcartier

September 24, 2003

Parks, Lieutenant-Commander Mike

Directorate of Army Training 5-4

CFB Kingston

May 7-9, 2002

Pasel, Mr. William

Emergency Measures Coordinator, Hamilton

Emergency Services Department, City of Hamilton

March 31, 2003

Paulson, Captain (N) Gary

Commanding Officer of HMCS Algonquin

Maritime Forces Pacific

November 18-22, 2001

O'Donnell, Mr. Patrick

President

Canadian Defence Industries Association

November 22, 2004

O'Shea, Mr. Kevin

Director, U.S. General Relations Division,

Department of Foreign Affairs and International

Trade

January 28, 2002

Oliver, Superintendent Joe

Royal Canadian Mounted Police

Director, Customs & Excise

October 2, 2006

Ortiz, The Honorable Solomon P.

Ranking Member, Subcommittee on Military

Readiness (Democrat – Texas)

U.S. House Armed Services Committee

February 06, 2002

Ouellet, Major Michel

Acting Commanding Officer, 5th Canadian Service

Battalion

CFB Valcartier

September 24, 2003

Parker, Major Geoff

Infantry

CFB Petawawa

June 25-27, 2002

Parriag, Ms Amanda

Centre for Research and Information on

Canada

December 6, 2004

Pataracchia, Lieutenant (N) John

Representing Commanding Officer, Canadian Forces

Recruiting Centre, Halifax

CFB Borden

June 25-27, 2002

Payne, Captain (N) Richard

Commanding Officer, Fleet Mantenance Facility

Cape Scott

Maritime Forces Atlantic

January 22-24, 2002

Pearson, Lieutenant Colonel Michael Commandant of Infantry School SAT CFB Gagetown January 22-24, 2002

Pelletier, France

Legislative and Regulatory Affairs, Airline Division Canadian Union of Public Employees November 25, 2002

Pennie, Lieutenant-General Ken Chief of Air Staff National Defence February 7, 2005

Pentland, Mr. Charles Political Studies, Centre for International Relations, Queen's University November 29, 2004

Peters, Colonel William Director, Land Strategic Planning, Chief of the Land Staff National Defence July 18, 2001

Pettigrew, Master Corporal Robert Canadian Forces School of Administration and Logistics, CFB Borden June 25-27, 2002

Pichette, Mr. Pierre Paul, Deputy Director, Operational Management Department, Montreal Police Service, City of Montreal September 26, 2003

Pigeon, Mr. Jacques Senior General Counsel and Head, Department of Justice, Legal Services Transport Canada December 2, 2002

Pile, Commodore Ty Commander, Canadian Fleet Atlantic National Defence May 6, 2005

Pilgrim, Superintendent J. Wayne Officer in Charge, National Security Investigations Branch, Criminal Intelligence Directorate, RCMP July 19, 2001 Pellerin, Colonel (Ret'd) Alain Executive Director Conference of Defence Associations October 15, 2001, April 19, 2004 / June 27, 2005

Penner, Lieutenant-Colonel Doug Commanding Officer, North Saskatchewan Regiment (Saskatoon) January 27, 2003

Pennie, Lieutenant-General (Ret'd) Ken June 27, 2005

Pentney, Mr. Bill Assistant Deputy Attorney General Department of Justice Canada February 15, 2005

Petras, Major-General H.M. Chief, Reserves and Cadets National Defence June 6, 2005

Pharand, M. Pierre Director, Airport Security Montréal Airports November 5-6, 2001

Pichette, Mr. Pierre-Paul Assistant Director, Montreal Urban Community Police Department November 5-6, 2001

Pigeon, Mr. Jean François Acting Director, Security Montréal Airports November 5-6, 2001

Pile, Captain (N) T.H.W. (Tyron) Commander, Maritime Operations Group Four, Maritime Forces Pacific November 18-22, 2001

Pinsent, Major John Canadian Parachute Centre, 8 Wing Trenton June 25-27, 2002

Who the Committee Heard From

Pilon, Mr. Marc

Senior Policy Analyst, Security Policy Division, National Security Directorate Office of the Solicitor General February 24, 2003

Plante, Master Corporal 8 Air Maintenance Squadron 8 Wing Trenton June 25-27, 2002

Polson, Captain (N) Gary Commanding Officer HMCS Algonquin Maritime Forces Pacific November 18-22, 2001

Poulin, Corporal Mario Canadian Forces Military Police Academy CFB Borden June 25-27, 2002

Préfontaine, Colonel Marc Comd 34 Brigade Group Executive The Black Watch November 5-6, 2002

Proulx, Asst. Commissioner Richard Criminal Intelligence Directorate RCMP October 22, 2001

Puxley, Ms Evelyn Director, International Crime and Terrorism Division, Foreign Affairs Canada April 11, 2005

Quinlan, Grant Security Inspector Transport Canada June 24, 2002

Randall, Dr. Stephen J. Dean, Faculty of Social Sciences University of Calgary March 8, 2005

Rathwell, Mr. Jacques Manager, Emergency and Protective Services, City of Gatineau February 3, 2003 **Pitman,** Mr. B.R. (Brian) Sergeant, Waterfront Joint Forces Operation, Vancouver Royal Canadian. Mounted Police November 18-22, 2001

Poirier, Mr. Paul Director, Intelligence and Contraband Division Northern Ontario Region Canada Customs and Revenue Agency May 7-9, 2002

Potvin, Corporal 8 Air Maintenance Squadron 8 Wing Trenton June 25-27, 2002

Preece, Captain (N) Christian Maritime Forces Atlantic January 22-24, 2002

Primeau, M. Pierre Investigator Organized Crime Task Force – RCMP November 5-6, 2001

Purdy, Ms. Margaret Associate Deputy Minister Department of National Defence August 14, 2002

Quick, Mr. Dave Co-ordinator, Emergency Planning City of Regina January 27, 2003

Raimkulov, M.P., Mr. Asan Kyrgyz Republic May 12, 2003

Rapanos, Mr. Steve Chief, Emergency Medical Services City of Edmonton January 28, 2003

Read, Mr. John A. Director General, Transport Dangerous Goods, Transport Canada February 25, 2004

Reaume, Mr. Al, Assistant Chief of Fire and Rescue Services, Fire Department, City of Windsor February 27, 2003

Reeve, Jason

Cabinet and Parliamentary Affairs Liaison, Afghanistan Task Force Foreign Affairs and International Trade Canada December 11, 2006

Reid, Chief Warrant Officer Clifford Canadian Forces Fire Academy CFB Borden June 25-27, 2002

Reid, Warrant Officer Jim Air Defence Missile CFB Petawawa June 25-27, 2002

Richard, CWO Stéphane 5th Canadian Service Battalion CFB Valcartier September 24, 2003

Richter, Dr. Andrew Assistant Professor, International Relations and Strategic Studies University of Windsor December 1, 2004

Rivest, Master Corporal Dan Canadian Forces School of Aerospace Technology and Engineering, CFB Borden June 25-27, 2002

Robertson, Vice-Admiral Drew Chief of the Maritime Staff National Defence February 26, 2007

Robinson, Second Lieutenant. Chase The Black Watch November 5-6, 2001

Romses, Brigadier-General R.R. Commander Land Forces Atlantic Area National Defence January 31, 2005 Reed, The Honorable Jack Chair (Democrat – Rhode Island), U.S. Senate Armed Services Committee February 5, 2002

Regehr, Mr. Ernie Executive Director Project Ploughshares March 21, 2005

Reid, Lieutenant Colonel Gord Commandant, Canadian Forces Air Navigation School (CFANS) 17 Wing Winnipeg November 18-22, 2001

Renahan, Captain Chris Armour CFB Petawawa June 25-27, 2002

Richmond, Mr. Craig Vice President, Airport Operations Vancouver International Airport November 18-22, 2001

Riffou, Lieutenant-Colonel François Commander, 1st Battalion, 22nd Royal Regiment, CFB Valcartier September 24, 2003

Robertson, Rear-Admiral Drew W. Director General, International Security Policy Department of National Defence February 23, 2004, April 11, 2005

Robertson, Mr. John Chief Building Inspector City of Vancouver January 30, 2003

Rochette, Colonel J.G.C.Y. Director General Compensation and Benefits National Defence June 6, 2005

Rose, Mr. Frank International Security Policy The Pentagon February 6, 2002

APPENDIX VI

Who the Committee Heard From

Ross, Major-General H. Cameron

Director General, International Security Policy, National Defence

January 28, 2002

Ross, Dr. Douglas

Professor, Faculty of Political Science

Simon Fraser University

March 1, 2005

Rossell, Inspector Dave

Inspector in charge of Operations-Support Services, Windsor Police Services City of Windsor

February 27, 2003

Rousseau, Colonel Christian

Commanding Officer, 5th Area Support Group

National Defence

June 1, 2005

Rumsfeld. The Honorable Donald

U.S. Secretary of Defense

February 6, 2002

Russell, Mr. Robert A., Assistant Commissioner,

Atlantic Region, Canada Customs and Revenue

Agency

September 22, 2003

Rutherford, Lieutenant-Colonel Paul

Commander, 73 Communication Group

National Defence

March 9, 2005

Samson, Chief Warrant Officer Camil

2nd Battalion, 22nd Royal Regiment

CFB Valcartier

September 24, 2003

Sampson, Tom

Chief of Emergency Medical Services

City of Calgary

February 1, 2007

Saunders, Corporal Cora

16 Wing

CFB Borden

June 25-27, 2002

Savard, Lieutenant-Colonel Danielle

Commander, 5th Field Ambulance

CFB Valcartier

September 24, 2003

Ross, Mr. Dan

Assistant Deputy Minister (Information Management),

National Defence

February 14, 2005

Ross, Master Warrant Officer Marc-André, 58th Air

Defence Battery

CFB Valcartier

September 24, 2003

Rostis, Mr. Adam

Federal/Provincial/Municipal Liaison Officer

Province of Nova Scotia

May 6, 2005

Rudner, Dr. Martin

Director, Centre for Security and Defence Studies,

Carleton University

June 3, 2004 / December 13, 2004

Rurak, Ms. Angela

Customs Inspector

Canada Customs and Revenue Agency

May 7-9, 2002

Rutherford, Master Corporal Denis

Canadian Forces Fire Academy

CFB Borden

June 25-27, 2002

Salesses, Lieutenant Colonel Bob

Logistics Directorate for Homeland Security, The

Pentagon

February 6, 2002

Samson, Brigadier-General P.M.

Director General, Intelligence

National Defence

October 22, 2001

Sanderson, Mr. Chuck

Executive Director, Emergency Measures Organization,

Province of Manitoba

March 10, 2005

Saunders, Captain Kimberly

Disaster Assistance Response Team

CFB Kingston

May 7-9, 2002

Schmick, Major Grant

Commanding Officer, Canadian Forces Recruiting Centre,

CFB Borden

June 25-27, 2002

Scoffield, Mr. Bruce

Director, Refugees Branch

Department of Citizenship and Immigration Canada

March 17, 2003

Scott, Captain John

Canadian Parachute Centre

8 Wing Trenton

June 25-27, 2002

Shadwick, Mr. Martin

Research Associate, Centre for International and Security

Studies, York University

December 2, 2004

Sharapov, M.P., Mr. Zakir

Kyrgyz Republic

May 12, 2003

Sheridan, Norman

Director, Customs Passenger Programs

Canada Customs and Revenue Agency

June 24, 2002

Simmons, Mr. Robert

Deputy Director, Office of European Security and

Political Affairs

U.S. Department of State

February 6, 2002

Sinclair, Ms. Jill

Acting Assistant Deputy Minister, Global Security

Policy, Department of Foreign Affairs and

International Trade

January 28, 2002 / August 14, 2002

Skelton, The Honorable Ike

Ranking Member (Democrat Missouri), U.S. House

Armed Services Committee

February 6, 2002

Skidmore, Colonel Mark

Commander, 2 Canadian Mechanized Brigade Group, CFB

Petawawa

June 25-27, 2002

Smith, Corporal

Canadian Postal Unit

8 Wing Trenton

June 25-27, 2002

Scott, Dr. Jeff

Provincial Medical Officer of Health

Halifax Regional Municipality

September 23, 2003

Sensenbrenner, Jr., The Honorable F. James, Chair

(Republican – Wisconsin

U.S. House Judiciary Committee

February 07, 2002

Shapardanov, Mr. Chris

Counsellor, Political

Canadian Embassy (Washington)

February 04, 2002

Sheehy, Captain Matt

Chairman, Security Committee

Air Canada Pilots Association

November 4, 2002

Sigouin, Mr. Michel

Regional Director, Alberta, Office of Critical

Infrastructure Protection and Emergency

Preparedness

October 27, 2003

Sinclair, Ms. Jill

Director General, International Security Bureau,

Department of Foreign Affairs and International

Trade

March 17, 2003

Sirois, Lieutenant-Colonel Sylvain

Commander, 5th Combat Engineer Regiment, CFB

Valcartier

September 24, 2003

Skidd, Officer Cadet. Alden

The Black Watch

November 5-6, 2002

Slater, Ms. Scenery C.

District Program Officer

Metro Vancouver District

Canada Customs and Revenue Agency

November 18-22, 2001

Smith, Captain (N) Andy

Commanding Officer, Fleet Maintenance

Facility, National Defence

May 6, 2005

APPENDIX VI

Who the Committee Heard From

Smith, Commodore Andy

Director General, Maritime Personnel and Readiness

National Defence February 26, 2007

Smith, Mr. Bill Chief Superintendent

Royal Canadian Mounted Police

February 3, 2005

Smith, Master Corporal Terry 436 Transport Squadron 8 Wing Trenton

June 25-27, 2002

Sokolsky, Dr. Joel

Dean of Arts and Professor of Political Science, Royal Military

College of Canada November 22, 2004

Spraggett, Ernest

Director, Commercial Operations Canada Customs and Revenue Agency

June 24, 2002

Stairs, Dr. Denis

Professor, Department of Political Science

Dalhousie University

May 5, 2005

Stark, Lieutenant-Commander Gary

Commanding Officer, HMCS Whitehorse, Maritime

Forces Pacific

November 18-22, 2001

Stevens, Pipe-Major Cameron

The Black Watch November 5-6, 2002

Stewart. Warrant Officer Barton

Canadian Forces School of Communications and Electronics,

CFB Kingtson May 7-9, 2002

Stewart, Chief William

Fire Chief and General Manager, Toronto Fire

Services, City of Toronto

October 30, 2003

Smith, Mr. Bob

Deputy Chief, Vancouver Fire and Rescue Services,

City of Vancouver January 30, 2003

Smith, Mr. Doug

Engineering Department

City of Vancouver

January 30, 2003

Snow, Master Corporal Joanne

Canadian Forces School of Administration and Logistics,

CFB Borden June 25-27, 2002

Souccar, Assistant Commissioner Raf

Royal Canadian Mounted Police

Federal and International Operations

October 2 and 30, 2006

Stacey, Corporal Derrick

CFB Borden Administration Services

CFB Borden

June 25-27, 2002

Starck, Mr. Richard

Senior Counsel, Quebec Regional Office,

Department of Justice

November 5-6, 2001

St-Cyr, Lieutenant-Colonel Pierre

Commander, Support Unit, 430th Helicopters

Squadron, CFB Valcartier

September 24, 2003

Stevens, Daniel

Emergency Management Coordinator, Risk & Emergency

Management

City of Vancouver

January 29, 2007

Stewart, Mr. James

Civilian Human Resources

Maritime Forces Atlantic

January 22-24, 2002

Stiff, Mr. Bob

General Manager, Corporate Security

Canada Post

August 15, 2002

St. John, Mr. Peter

Professor (retired), International Relations, University of Manitoba

November 25, 2002

Stone, Master Corporal Canadian Parachute Centre 8 Wing Trenton June 25-27, 2002

Stump, The Honorable Bob Chair (Republican – Arizona) U.S. House Armed Services Committee February 6, 2002

Sully, Mr. Ron Assistant Deputy Minister, Programs and Divestiture, Transport Canada February 7, 2005

Sweeney, Steve Superintendent Vancouver Police Department January 29, 2007

Taillon, Mr. Paul Director, Review and Military Liaison Office of the Communications Security Establishment Commissioner June 2, 2005

Tarrant, Lieutenant-Colonel Tom Deputy Director of Army Training CFB Kingston May 7-9, 2002

Taylor, The Honorable Gene Subcommittee on Military Procurement U.S. House Armed Services Committee February 6, 2002

Taylor, The Honourable Trevor Minister of Fisheries and Aquaculture and Minister Responsible for Labrador Government of Newfoundland and Labrador February 3, 2005

Thibault, Master Corporal Christian Gulf Squadron CFB Kingston May 7-9, 2002 **St. John**, Dr. Ron Executive Director, Centre for Emergency Preparedness and Response Health Canada

February 10, 2003

St-Pierre, M. Jacquelin Commanding Officer, Post 5, Montreal Urban Community Police Department November 5-6, 2001

Sullivan, Colonel C.S. Wing Commander, 4 Wing Cold Lake National Defence March 7, 2005

Summers, Rear-Admiral (Ret'd) Ken Naval Officers Association of Vancouver Island February 28, 2005 / June 27, 2005

Szczerbaniwicz, LCol Gary Commanding Officer, 407 Squadron Maritime Air Force Command Pacific November 18-22, 2001

Tait, Mr. Glen Chief, Saint John Fire Department, City of Saint John March 31, 2003

Tatersall, Lieutenant-Commander John Directorate of Army Training 3 CFB Kingston May 7-9, 2002

Taylor, Mr. Robert Inspector Vancouver Police Department November 18-22, 2001 Theilmann, Mr. Mike Acting Director, Counter-Terrorism Division, Solicitor General Canada July 19, 2001

Thomas, Vice-Admiral (Ret'd) Charles As an individual March 1, 2005

APPENDIX VI

Who the Committee Heard From

Thomas, Mr. John F.

Partner

BMB Consulting

June 9, 2003

Tracy, Ms Maureen

Acting Head, Customs Contraband, Intelligence and

Investigations, Enforcement Branch, Canada Border Services

Agency

February 7, 2005

Tremblay, Colonel Alain

Commander, Canadian Forces Recruiting Group, CFB Borden

June 25-27, 2002

Tremblay, Colonel J.G.E.

Director, Current Operations, Strategic Joint Staff

National Defence

October 16, 2006

Trim, Corporal

8 Air Maintenance Squadron, 8 Wing Trenton

June 25-27, 2002

Tse, Hau Sing

Vice-President, Asia Branch

Canadian International Development Agency

May 29, 2006

Ur, Corporal Melanie

16 Wing, CFB Borden

June 25-27, 2002

Verner, The Honourable Josée

Minister of International Cooperation

May 29, 2006

Wainwright, Lieutenant-Colonel J.E.

Commander, 16/17 Field Ambulance

National Defence

March 9, 2005

Ward, Master Corporal Danny

Canadian Forces School of Aerospace Technology and

Engineering, CFB Borden

June 25-27, 2002

Ward, Colonel Mike J.

Commander Combat Training Centre

CFB Gagetown

January 22-24, 2002

Thompson, Ms Susan

Former Mayor of the City of Winnipeg

As an individual

March 10, 2005

Tracy, Ms. Maureen

Director, Policy and Operations Division

Canada Customs and Revenue Agency

April 7, 2003

Tremblay, Lieutenant-Colonel Eric

Commander, 5th Canadian Light Artillery Regiment,

CFB Valcartier

September 24, 2003

Tremblay, Captain (N) Viateur

Deputy Commander, Naval Reserve

Department of National Defence

September 25, 2003

Trottier, Lieutenant-Colonel Ron (Res)

Windsor Regiment

December 1, 2004

Tulenko, Mr. Timothy

Political-Military Officer, Canadian Affairs, U.S.

Department of State

February 6, 2002

Verga, Mr. Peter F.

Special Assistant for Homeland Security, The

Pentagon

February 6, 2002

Villiger, Lieutenant-Colonel F.L.

Calgary Highlanders

National Defence

March 8, 2005

Wamback, Lieutenant-Commander A.

Commanding Officer, HMCS Windsor

Maritime Forces Atlantic

January 22-24, 2002

Ward, Officer Cadet. Declan

Student

McGill University

November 5-6, 2002

Ward, Master Corporal

Wing Operations

8 Wing Trenton

June 25-27, 2002

Wareham, Corporal

8 Air Maintenance Squadron 8 Wing Trenton

June 25-27, 2002

Warner, The Honorable John

Ranking Member, U.S. Senate Armed Services

Committee

February 5, 2002

Watt, Major John

Commanding Officer, Bravo Squadron

CFB Kingtson

May 7-9, 2002

Weighill, Mr. Clive

Deputy Chief of Police

City of Regina

January 27, 2003

Wells, Corporal Corwin

CFB Kingston

May 7-9, 2002

Westwood, Commodore Roger

Director General - Maritime Equipment Program Management

National Defence

June 27, 2005

Whitburn, Lieutenant Colonel Tom

Squadron 435

17 Wing Winnipeg

November 18-22, 2001

Wicks, Major Brian

Commander, 103 Search and Rescue Squadron

(Gander)

February 2, 2005

Williams, Captain (N) Kelly

Former Commanding Officer, HMCS Winnipeg,

National Defence

September 22, 2003

Wilmink, Mr. Chuck

Consultant

November 4, 2004

Wark, Professor Wesley K.

Associate Professor in the Deptartment of History,

Trinity College, University of Toronto

October 1, 2001 / May 5, 2003 / June 27, 2005

Warren, Mr. Earle

Director General, Major Projects Design and Development

Directorate, Customs Branch

Canada Customs and Revenue Agency

February 10, 2003

Watts, Chief Warrant Officer Ernest

3 Area Support Group

CFB Gagetown

January 22-24, 2002

Weldon, The Honorable Curt

Chair, Subcommittee on Military Procurement

(Republican – Pennsylvania)

U.S. House Armed Services Committee

February 6, 2002

Werny, Colonel W.S.

Commanding Officer, Aerospace Engineering

Test Establishment

National Defence

March 7, 2005

Whalen, Private Clayton

CFB Kingston

May 7-9, 2002

White, Lieutenant (N) Troy

J2

CFB Kingston

May 7-9, 2002

Williams, Mr. Alan

Assistant Deputy Minister (Material)

National Defence

November 1, 2004 / October 16, 2006

Williams, Col. Richard

Director, Western Hemisphere Policy

Department of National Defence

May 6, 2002, March 17, 2003

Wilson, Mr. Larry

Regional Director, Maritimes

Canadian Coast Guard

September 22, 2003

APPENDIX VI Who the Committee Heard From

Wing, Mr. Michael

National President, Union of Canadian Transportation

Employees

September 22, 2003

Winn, Mr. Conrad President and CEO

COMPASS

December 2, 2004

Woodburn, Commander William

Submarine Division Maritime Forces Atlantic January 22-24, 2002

Wriedt, Colonel Art

Commander, 41 Canadian Brigade Group

National Defence

February 1, 2007

Wright, Robert

Commissioner

Canada Customs and Revenue Agency

May 6, 2002

Wynnyk, Colonel P.F.

Area Support Unit Commander

National Defence

March 7, 2005

Young, Brigadier-General G.A. (Res)

Deputy Commander, Land Forces Central

Area

December 2, 2004

Young, Major Marc

J4

CFB Kingston

May 7-9, 2002

Wingert, Colonel Douglas

Director Land Equipment Program Staff

National Defence June 27, 2005

Wolsey, Chief Randy

Fire Rescue Services, Emergency Response

Department

City of Edmonton

January 28, 2003

Woods, Corporal Connor

Canadian Forces Medical Services School

CFB Borden

June 25-27, 2002

Wright, Mr. James R.

Assistant Deputy Minister, Global and Security

Policy, Department of Foreign Affairs and

International Trade

February 23, 2004

Wright, Mr. James R.

Assistant Deputy Minister, Global and Security

Policy, Privy Council Office

February 23, 2004

Yanow, Rear-Admiral (Ret'd) Robert

As an individual

March 1, 2005

Young, Dr. James

Assistant Deputy Minister, Public Safety and Commissioner of Public Security, Ontario Ministry

of Community Safety and Correctional Services

October 30, 2003

Zaccardelli, Commissioner Giuliano

Royal Canada Mounted Police

May 8, 2006 / May 29, 2006

APPENDIX VII Biographies of Committee Members



The Honourable NORMAN K. ATKINS, Senator

Norman K. Atkins was appointed to the Senate of Canada on June 29, 1986. Senator Atkins currently sits as an independent Progressive Conservative member, and is on the National Security and Defence Committee and the Veterans Affairs Subcommittee. Senator Atkins is a former President of Camp Associates Advertising Limited, a well-known Toronto-based agency, Senator Atkins has also played an active role within the industry, serving, for instance, as a Director of the Institute of Canadian Advertising in the early 1980's. Senator Atkins has been very

active within the Progressive Conservative Party – at both the national and the provincial levels. Namely, Senator Atkins was National Campaign Chair in the federal elections of 1984 and 1988 and has held senior organizational responsibility in a number of Provincial election campaigns and he has served as an advisor to both the Rt. Hon. Brian Mulroney and the Rt. Hon. Robert L. Stanfield, as well as the Hon. William G. Davis Premier of Ontario.



The Honourable TOMMY BANKS, Senator

Tommy Banks is known to many Canadians as an accomplished and versatile musician and entertainer. He is a recipient of the Juno Award, the Gemini Award and the Grand Prix du Disque. From 1968 to 1983 he was the host of The Tommy Banks Show on television. He has provided musical direction for the ceremonies of the Commonwealth Games, the World University Games, Expo '86, the XV Olympic Winter Games, various command performances and has performed as guest conductor of symphony orchestras throughout Canada, the United States, and in Europe. Tommy Banks was called to the Senate of Canada on

7 April 2000. On 9 May 2001, Senator Tommy Banks was appointed Vice-Chair of the Prime Minister's Caucus Task Force on Urban issues. He is currently a member of the Committee on National Security and Defence, Chair of the Committee on Energy, the Environment and Natural Resources, and chair of the Alberta Liberal Caucus in the Parliament of Canada.



The Honourable JOSEPH A. DAY, Senator

Appointed to the Senate by the Rt. Honourable Jean Chrétien, Senator Joseph Day represents the province of New Brunswick and the Senatorial Division of Saint John-Kennebecasis. He has served in the Senate of Canada since October 4, 2001.

He is currently a Member of the following Senate Committees: National Security and Defence; the Subcommittee on Veterans Affairs, National Finance and Internal Economy Budgets and Administration. Areas of interest and specialization include:

science and technology, defence, international trade and human rights issues, and heritage and literacy. He is a member of many Interparliamentary associations including the Canada-China Legislative Association and the Interparliamentary Union. He is also the Chair of the Canada-Mongolia Friendship Group.

A well-known New Brunswick lawyer and engineer, Senator Day has had a successful career as a private practice attorney.



The Honourable COLIN KENNY, Senator

Sworn in on June 29th, 1984 representing the Province of Ontario. His early political career began in 1968 as the Executive Director of the Liberal Party in Ontario. From 1970 until 1979 he worked in the Prime Minister's Office as Special Assistant, Director of Operations, Policy Advisor and Assistant Principal Secretary to the Prime Minister, the Right Honourable Pierre Trudeau. During his parliamentary career, Senator Kenny has served on numerous committees. They include the Special Committee on Terrorism and Security (1986-88) and (1989-91), the Special Joint Committee on

Canada's Defence Policy (1994), the Standing Committee on Banking Trade and Commerce, the Standing Committee on National Finance, and the Standing Committee on Internal Economy, Budgets and Administration.



The Honourable WILFRED P. MOORE, Q.C., Senator

Senator Moore was appointed to the Senate on September 26th, 1996 by the Right Honourable Jean Chrétien and represents the Province of Nova Scotia (Stanhope St./South Shore). The Senator graduated from Saint Mary's University with a Bachelor of Commerce degree in 1964, and with a Law degree in 1968 from Dalhousie University. He was appointed a Queen's Counsel in 1983. He is a member of the Nova Scotia Barrister's Society, having practiced law in Halifax for 31 years (1968-1999). The Senator was a Halifax Alderman from 1974 to 1980

and served as Deputy Mayor from 1977 to 1978. He was Chairman of the Halifax Metro Centre, having been a member of its building committee, and he chaired the Social Assistance Appeal Board for Halifax and Dartmouth. For 10 years, from 1994-2004, he was a member of the Board of Governors of Saint Mary's University, including the Advisory Committee to the President. He is a former member of the 615 Bluenose Air Cadet Squadron, and the R.C.A.F. Reserves.



The Honourable ROD A.A. ZIMMER, Senator

Rod Zimmer is one of Winnipeg's most recognized community leaders. He was President of the Royal Winnipeg Ballet from 1989 to 1991 and as a Member of the Board of Directors for the Winnipeg Blue Bombers Football Club from 1981 to 1993. In 1973 Rod Zimmer became Special Assistant to the Hon. James Richardson, Minister of National Defense, in Ottawa and served in that position until 1979. From 1979 to 1983, he was Vice-President of Corporate Communications for CanWest Capital Corporation. and was the Director of Project Management for the Canadian Sports Pool Corporation in Ottawa in 1984. From 1985

to 1993, he was the Director of Marketing and Communications for the Manitoba Lotteries Foundation. Since 1993, he has been the President of The Gatehouse Corporation. From 1995 to 1998, he served as Vice President of Festivals for the Pan American Games Society.

Throughout his career, he has co-chaired and coordinated appeals for various charitable groups, arts and sport organizations and universities, including, B'nai Brith, Hebrew University, Manitoba Métis Federation, First-Nations, Universities of Winnipeg and Manitoba, Winnipeg Chinese Cultural Centre, Hellenic Society, East Indian Culture Centers, Saskatchewan Association of Rehabilitation Centres, Para and Special

Olympics, and recently Gold Medal Plates (Manitoba)/ 2010 Winter Olympics (Vancouver).

Recently, Rod Zimmer was asked to be the Senate Caucus Liaison for the Young Liberals of Canada. A role that will allow him to mentor youth from across the country through his position as a Senator, an illustration that merely reflects his countless years of dedication to youth within the Liberal Party.

APPENDIX VIII Biographies of the Committee Secretariat



Canadian Forces.

Major-General (Ret'd) G. Keith McDonald, Senior Military Advisor

MGen McDonald grew up in Edmonton, attended College Militaire Royal in St. Jean and Royal Military College in Kingston (RMC), graduating in 1966 and being awarded his pilot wings in 1967.

MGen McDonald operationally flew the Tutor, T-33, CF5, CF104 and CF18 aircraft accumulating over 4000 hours of pilot in command throughout his 37-year career in the Air Force,

He held staff positions at the Royal Military College, in Baden Soellingen Germany, at National Defence Headquarters in Ottawa and at the North American Aerospace Command in Colorado Springs. Command positions include CF18 Squadron Commander, Base and Wing Commander in Baden Soellingen, Germany.

Major General McDonald ended his military career as the Director of Combat Operations at Headquarters North American Aerospace Defence Command at Colorado Springs, USA.

After leaving the military in 1998, General McDonald served a period of "conflict of interest" prior to joining BMCI Consulting as a Principal Consultant in the Aerospace and Defence Division. He left BMCI in 2002 to set up his own consulting company, KM Aerospace Consulting.

Major General McDonald has a degree in Political and Economic Science (Honours Courses) from the Royal Military College. He has completed Canadian Forces staff school, the Royal Air Force (England) Staff College, the National Security studies course, Post Graduate Courses in Business at Queens University, Electronic Warfare Courses at the University of California Los Angeles, the Law of Armed Conflict at San Remo, Italy, and numerous project management courses.

General McDonald is married to the former Catherine Grunder of Kincardine, Ontario, and they have two grown daughters, Jocelyn and Amy.



Barry A. Denofsky, National Security Advisor

Barry Denofsky recently retired after having completed 35 years with the Canadian Security Intelligence Service (CSIS) and the Royal Canadian Mounted Police (RCMP). Mr. Denofsky joined the RCMP in January 1969 and worked as a peace officer in Saskatchewan, Alberta, and Quebec. In 1972, he was transferred to the RCMP Security Service where he was involved in a variety of national security investigations. With the creation of CSIS in 1984, Mr. Denofsky maintained his interest and involvement in matters of national security with the new Service.

Mr. Denofsky held a variety of operational and senior management positions with CSIS which have included the following: Chief, Counter Intelligence, Quebec Region, Deputy Director General Operations, Ottawa Region, Deputy Director General Counter Terrorism, Headquarters, Ottawa, and Director General Counter Intelligence, Headquarters, Ottawa. On retirement from CSIS, Mr. Denofsky was the Director General, Research, Analysis and Production, Headquarters, Ottawa. In that capacity, he was responsible for the production and provision to government of all source analytical products concerning threats to the security of Canada

Mr. Denofsky also represented CSIS for many years at meetings of the NATO Special Committee in Brussels, Belgium. The Special Committee is an organization of security and intelligence services representing all member nations of NATO. In 2002, Mr. Denofsky was the Chair of the NATO Special Committee Working Group.

Mr. Denofsky is a graduate of the University of Toronto, and holds a graduate Diploma in Public Administration from Carleton University in Ottawa. He is a member of the Council of Advisors, the Canadian Centre of Intelligence and Security Studies, (CSIS), Carleton University. He is married and has two children.



Steven James, Analyst

Steven James joined the Parliamentary Information and Research Service of the Library of Parliament in July 2005. He serves as a Research Officer for the Standing Senate Committee on National Security and Defence.

Mr. James received his Bachelor of Arts (Psychology and Sociology) from the University of Alberta and a Masters in Military and Strategic Studies from the Center for Military and Strategic Studies at the University of Calgary.

Mr. James' recent studies have focused on Canada's counter-terrorism framework, specifically, federal, provincial and municipal responses to and prevention of terrorist-related incidents.

Previous to joining the Committee, Mr. James served as a Police Officer for the both the Ontario Provincial Police (1994 - 1998) and the Toronto Police Service (1998 - 2001).



Melissa Radford, Analyst

Melissa Radford joined the Parliamentary Information and Research Service of the Library of Parliament in November 2006 and serves as analyst for the Standing Senate Committee on National Security and Defence.

Miss Radford graduated from the Royal Military College of Canada with an MA in Defence Management and Policy in

May 2006. She also holds a BSc in International Relations from the London School of Economics.

During her last semester at RMC, just prior to joining the Committee, Miss Radford worked at the United Nations Secretariat in the Department of Peacekeeping Operations.

Jason Yung, Research Assistant

Jason Yung joined the Parliamentary Research and Information Service of the Library of Parliament in January 2007. Jason currently serves as a Research Assistant to the Senate Standing Committee on National Security and Defense.

Jason earned his Honours Bachelor of Arts from the University of Toronto in 2005 in Economics and Political Science. Jason has since completed internships with organizations including the International Crisis Group, Human Rights Watch and the Atlantic Council of Canada. Most recently, Jason served as a policy analyst for the Department of Foreign Affairs and International Trade.

Jason's primary research interests are focused on Islamism, Middle East politics, and the evolving role of China in the Middle East.

Jodi Turner, Committee Clerk

Jodi Turner joined the Committees Branch of the Senate in January 2005. She serves as the Co-clerk for the Standing Senate Committee on National Security and Defence.

Ms. Turner received a *cum laude* Double Honours Bachelor of Arts (French and Political Studies) and a *cum laude* Masters in Public Administration (specialization in Canadian Politics), from the University of Manitoba.

Previous to joining the Committee, she served as Chief of Staff to the Speaker of the Senate from 2002 – 2005; and was Vice-President of Research for Western Opinion Research in Winnipeg, Manitoba from 2000 – 2002.