THE GOVERNMENT'S No. 1 JOB

Securing the Military Options It Needs to Protect Canadians

An Interim Report of the Senate Committee on National Security and Defence

June 2006

Dedicated To

Senator J. Michael Forrestall (1932 – 2006)



SENATOR FORRESTALL VISITING THE CANADIAN FORCES IN AFGHANISTAN

On behalf of the Committee, I would like to take a moment to remember Senator Michael Forrestall. Mike was a kind, warm man and a friend to all Canadians. He served as the Deputy Chair of this Committee. He was a driving force behind the reports we have produced over the past five years, ensuring that no area of concern was neglected.

Although he was a fiercely partisan politician in his years of the House of Commons, when he came to the Senate he recognized that one of the Upper Chamber's great values is its ability to tackle issues on a thoughtful, non-partisan basis. The Committee's success over the past five years is in large part attributable to this non-partisan spirit. Mike was instrumental in setting that tone.

One measure of the man is how appreciative he was of Committee staff – always ready with a greeting, a wink, a word of advice or a thank you. The long hours Committee members have sometimes been forced to spend travelling and in deliberative sessions in recent years were leavened by his gentleness and humour, punctuated by his passion for important causes.

His stalwart advocacy of the role of the Halifax Rifles in Canadian history, for instance, is legendary. One sensed that Mike was convinced that if the Rifles could be revived the world could be saved from any of the threats that face us today. Two weeks before his death from cancer, Mike was still diligently working on Committee activities.

Mike was a patriot and a friend, and he is remembered with great affection by all of us. Our condolences to his wife Marilyn, his children, Mary Ellen, Danny, Polly Sue and Michael, and their children as well.

39th Parliament – 1st Session

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38th Parliament – 1st Session

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37th Parliament – 2nd Session

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37th Parliament – 1st Session

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The Point of this Report

The Canadian Forces must be rebuilt for one very good reason: Canadians need better military protection. We need better protection now, and we will need it even more if threats to our well-being increase, which is a reasonable assumption.

We Canadians are open to man-made disasters, natural disasters, crises at home and crises abroad. Canada has not been devastated by terrorist attacks since the Air India attacks of 1985, but many of our friends and allies have – the United States, Britain, Spain, Indonesia, Australia and others. And the recent arrests in Southern Ontario should leave no doubt that Canada will someday be on that list.

Nature, of course, has every country on its list, and Canada has endured its share of natural disasters. Nobody should doubt that there are more coming. Whether Canada's crises are man-made or natural, our armed forces constitute the backbone of our response team.

Not only do we need to protect ourselves from all kinds of physical threats, we need to protect our country's interests abroad. For a nation to effectively advance its global interests it must pull its weight on the world scene.

We Canadians were significant international players for much of the 20th century until our influence began to dwindle toward the end of that century. Both the International Policy Statement published by the last government and the enhanced commitments of the current government seek to redress that situation.

This government will be unable to meet the dual goals of better protecting Canadians and better advancing Canada's interests abroad without an effective military. We have an improved military now. We do not yet have the military Canadians need. Attaining it should be a priority for this government, and for all Canadians.

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The Mandate of this Report

WOUNDED, the first of our three reports dealing with the state of Canada's military, was released in September 2005. It focused on the many problems facing the Canadian Forces following decades of neglect.

THE GOVERNMENT'S NO. 1 JOB, the Committee's second report in this three-part series, will focus on solutions to persisting problems. This report will make recommendations that we believe the new government will want to consider as it gets on with the process of rehabilitating Canada's armed forces – a process to which it has so clearly committed itself.

GETTING TO 2026 is the working title of a third report that will examine future challenges facing Canada and recommend structural changes the government must make to end the semi-permanent state of crisis that plagues the Canadian Forces. That report should be released in the coming months.

Solving Our Defence Puzzle –

Fixing the Canadian Forces is not going to be easy. There are some problems that can be fixed on an ad hoc basis – order some new G-wagons, acquire some new field artillery, bring in a few thousand new recruits. But an ad hoc approach is not enough. It may create the illusion of healing, but in this case there are too many wounds for random patching. If a body's organs are not functioning properly, all the Band-Aids in the world will not help.

Yes, some problems need immediate attention. But there has to be a master plan. If the Government of Canada is really interested in rehabilitating Canada's armed forces – and the Committee believes that it is – it will make the big changes that will make a multitude of smaller changes possible.

Here are the big pieces of the puzzle, as we see them, in descending order. Piece No. 1 must be put in place, or there is less chance of success at putting Piece No. 2 in place, and so on down the line.

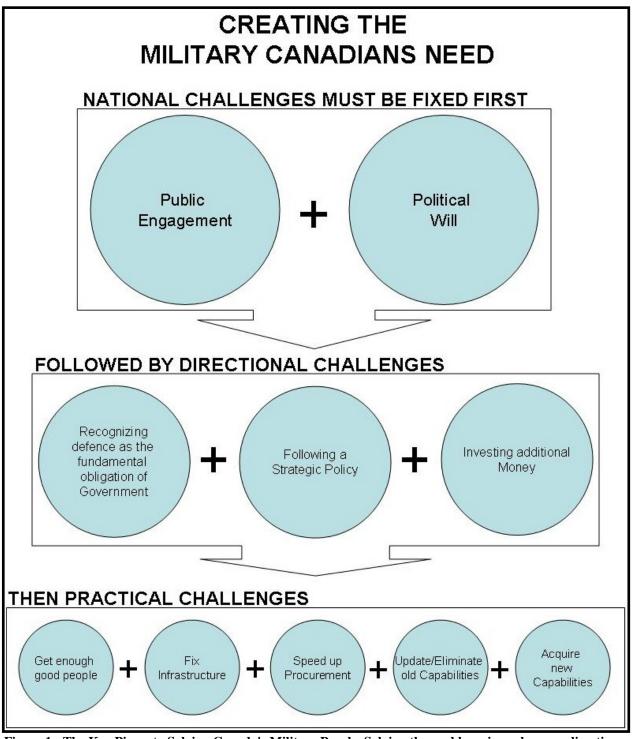


Figure 1 - The Key Pieces to Solving Canada's Military Puzzle. Solving the problems in each succeeding tier is a necessary prerequisite to solving those in the next. If National Challenges aren't addressed, it makes it less likely that Directional Challenges can be and so on.

- NATIONAL CHALLENGES (See Part I) -

No. 1

Public Engagement in National Security and Defence

It will be difficult, if not impossible, to create the kind of Canadian Forces that the people of this country need without strong support from two key constituencies: (a) our national politicians and (b) the public at large. Political leadership and public support are symbiotic – they stimulate each other's growth. The Committee is pleased to recognize that the new Prime Minister has expanded the previous government's commitment to upgrading the Canadian Forces. The current Prime Minister made military rehabilitation a major component of his party's platform during the 2006 election campaign. He went on to signal the Government's support for the Forces with a personal visit to Canadian troops in Afghanistan in March 2006.

The Prime Minister's interest in the Canadian military is essential if the Canadian public is going to have a clearer understanding of the importance of the Canadian Forces, both to their own well being and the well being of the country. But the Prime Minister cannot turn apathy into energy on his own. Too many Canadians are indifferent toward – or wary of – the concept of a healthy and effective Canadian military for any one person, even the Prime Minister, to turn the tide, no matter how important that person might be. Other people need to be brought on board: the rest of the Cabinet, the governing party's caucus, opposition politicians, the Canadian media, and most of all, the citizens of Canada. When a repair job is this urgent, and the repairs needed are so numerous, only a concerted effort by all Canadian leaders who understand the nature of the problem is likely to muster the kind of public support required for significant change.

No. 2

Mustering Political Will

The recent history of the Canadian Forces offers one lesson: with political will, anything is possible; without it, nothing is. The challenge facing the Government is one of leadership. To create sustained change, government must stimulate national

consensus. But even before that consensus exists, the government has a responsibility to begin making tough choices about the military Canadians need to protect themselves and their interests.

This Government has indicated that it is willing to make those choices. The proof will be in the pudding. It also remains to be seen whether the Prime Minister and Defence Minister will be content to make the case for the military on their own, or whether they will attempt to mobilize other politicians and members of Canadian society to join them. Despite its strong place on the platform during the last election campaign, strengthening the Canadian forces has not been mentioned as one of this Government's five priorities since it took office. Is it a sixth priority? The Committee can only hope so.

- DIRECTIONAL CHALLENGES (See Part II) -

No. 3

Recognizing Defence as the Fundamental Obligation of Government

The most basic role of any national government is to protect its citizens and their vital interests. To do that, governments must exercise the power they have to come up with ways of accomplishing those ends. Military power is one element of national power. The Canadian Forces constitute a primary tool in protecting Canadians and their interests. And yet successive governments have consistently failed to recognize the Department of National Defence as anything more than just another arm of federal bureaucracy, tying DND up in the same red tape protocols and regulations that make getting anything done in Ottawa so difficult.

The process for improving the country's primary mechanism for protecting Canadians and their interests should not keep getting bogged down in quicksand.

Defence procurement – which often involves big ticket, long-term, technologically advanced and complex purchases – has floundered so badly that the length of some projects can now be calculated in decades as opposed to years. Equipment

purchases often take so long to run the gamut of bureaucratic checks and balances that the equipment is close to being outdated when it finally arrives.

These kinds of purchases can be deciding factors as to whether Canadians and their interests are being properly protected. They can also have life-and-death implications for the young men and women who are serving their country.

The Department of National Defence can not continue to be treated as an ordinary component of the federal bureaucracy. The Committee believes that ways must be found to give DND and Canadian Forces decision-makers the capacity to move more quickly and efficiently in acquiring the equipment they need to serve Canadians.

The Committee will address this issue further in its next report.

No. 4

Following a Strategic Plan

Having a strategic plan to revitalize the armed forces is essential to making efficient and intelligent progress. There is such a plan in place. It may not be perfect but in general, it makes sense, and with new input from the current Government the combination can make even more sense.

The *Defence Policy Statement* (released in April 2005) coupled with the goals of the new Government as stated during the last election campaign now represent the directional guidance for the continued transformation of the Canadian Forces.

A plan, of course, is only a plan without money until it is funded. The 1994 White Paper on Defence was a very good strategic plan and would have prevented much of the deterioration that has taken place in the Canadian Forces, had it been adequately funded. It was not. Canadians now have another good plan in place. May history not repeat itself.

No. 5

Investing in Canada's Future

Without proper funding, any blueprint might as well be written in disappearing ink, as was the case with 1994 White Paper on Defence.

It is still too early to assess whether the current Government will be willing to invest the funds that will be required to bring the Canadian Forces to a level at which they can offer Canadians the protection they deserve while advancing the country's interests internationally. However, if the Spring 2006 budget proves to be a harbinger of what is to come, it falls short.

If projections for long-term military spending are based on current spending plus commitments made in the 2006 budget, they come up about \$10 billion a year short of the funding that the Committee believes will be required to give Canadians the military they need.

Words alone do not work internationally. Nor will words alone rehabilitate an institution that has fallen into deep decline. How much money is really needed to fix the Canadian Forces? Please see Chapter 2.

- PRACTICAL CHALLENGES (See Part III) -

Once the broad challenges listed above have been dealt with, on-the-ground deficiencies need to be addressed on an urgent basis. With a few exceptions, these fall into four general categories:

- Getting More Good People
- Fixing Procurement Procedures
- Acquiring Better Equipment
- Modernizing Infrastructure

¹ The Committee described these problems in its September 2005 report *Wounded: Canada's Military and the Legacy of Neglect.*

No. 6

Getting More Good People

So overstretched had the personnel of the Canadian Forces become by 2004 that the Government of Canada had to do something that many pundits had deemed to be unthinkable: it ordered an "operational pause" for the Canadian Forces until February this year. This was a pause that this Committee had recommended in 2002.² At that time the recommendation was dismissed by analysts, politicians and even some senior military personnel as being too embarrassing to Canada to even contemplate.

But our leaders began to change their minds, and overseas operations were either shut down or reduced in scope so that military personnel and equipment could be brought home for recuperation and refit. The pause was needed to treat the obvious symptoms of years of trying to do too much with too little – Canada's armed forces were exhausted.

The pause was essential, but it hasn't solved some of the basic problems. Even after the Government manages to fulfill its commitment to increase the size of the Canadian Forces to 75,000 personnel, there will still be too few people in the Canadian military to properly protect Canadians and advance their interests. Even getting to 75,000 will be difficult – the challenge to recruiting and training systems that had all but disintegrated will be immense. How many people do the Canadian Forces need and how can they ever hope to get them? Please see Part III.



Acquiring the Right Equipment

Most Canadians are familiar with the Sea Kings, those infamous helicopters purchased by the Government in 1963, primarily as submarine-hunters, and still flying in 2006 when they are not stuck in maintenance, which is often. The Sea

² The Committee recommended a "strategic retreat" in its November 2002 report, "For an Extra \$130 Bucks....Update On Canada's Military Financial Crisis: A View From The Bottom Up." The report is available on the Committee's website at http://www.sen-sec.ca.

Kings were supposed to be replaced in the 1990s. Politics intervened, and no replacement is expected until 2007 (and that may turn out to be an overly-optimistic projection). The truth is that much of Canadian military equipment should have been replaced in the 1990s, but the Government's fight against budget deficits took precedence.

The impact of that fight on the Canadian Forces – which took the biggest hit of any government institution during the cost-cutting – is now manifesting itself. There is a long list of ships, aircraft and all kinds of other equipment that should be acquired to either replace aged existing equipment or to fulfill new roles. The need for new military hardware will be addressed briefly in Part 3, and in greater detail in Part 4, where recommendations will deal with specific needs.

No. 8

Modernizing Infrastructure

Infrastructure decay represents a huge and growing liability for the Department of National Defence. It is a liability that tends to get ignored when governments are calculating what needs to be spent on defence in any given year.

Government-wide guidelines, set by the Treasury Board, state that departments should spend an amount equivalent to 2 per cent of the Realty Replacement Cost of a piece of infrastructure on maintenance and repair, and another 2 per cent on recapitalization.³

The Department of National Defence owns and manages a great deal of property, so what it should be spending on infrastructure maintenance and recapitalization works out to more than \$852 million a year. The Department has been unable to come close to these targets in recent memory, spending only slightly more than half of what it is supposed to each year.

³ Realty Replacement Cost or Value is an objective measure of the value of our realty assets, excluding land. It represents the estimated cost to replace each realty asset with a new realty asset, built to today's standards while still serving the same function and meeting the same capacity as the current realty assets.

⁴ The total Realty Replacement Cost for land, buildings and works, including housing, owned by the Department of National Defence is estimated at \$21.3 billion this year (up from \$19.11 billion last year). Four per cent of \$21.3 billion – what Treasury Board guidelines suggest the Department should be spending on upkeep and replacement of infrastructure – is \$852 million.

The cost of correcting the cumulative deterioration to infrastructure will run into the billions. The longer the government puts off addressing the increasingly rundown state of infrastructure held by the Department, the more expensive it will be to fix the problem when they have no choice.

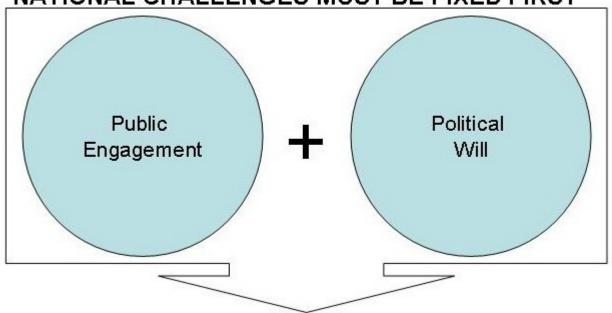
It certainly doesn't make sense to the Committee to add infrastructure before repairing what it has or divesting what it doesn't need. Please see Part 3.

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PART I

National Challenges

NATIONAL CHALLENGES MUST BE FIXED FIRST



Canadian Mindsets on Defence and Security

Change – in this case the revitalization of Canada's armed forces – will only be sustainable if a majority of citizens are on side. But Canadian citizens have become so engrossed by so many other issues in their private and public lives that matters related to the Canadian Forces have become of peripheral interest to many of them.

When Canadians do think about the military, three mindsets tend to complement one another:

- 1. Canada is not a warlike nation.
- 2. There is no imminent threat to Canadians.
- 3. The Americans will take care of us.

The Committee believes that these mindsets need to be addressed and amended if the public is going to offer the kind of support that will be needed for change.

Canada is not a warlike nation. True, but we do have a history of protecting ourselves, defending our interests and standing up for what is right when the crunch comes. If we did not, our sovereignty and our national identity would be of negligible value. War is terrible, and sane people around the world recognize that. But a proud and moral nation knows how to respond to threats to its own security and sovereignty as well as the wrongs being perpetrated on others. Canada does not have adequate resources to respond in any kind of concerted way. It is not warlike to insist upon having the capacity to respond to random acts of terror. And it is prudent to be able to deal effectively with natural disasters at home and abroad. Both are common sense.

There is no imminent threat to Canadians. Not so. Canadians live in a shrunken world in which borders and even oceans offer very limited buffers to disaster. Threats there are threats here. Canada faces a range of potential threats from terrorists, natural disasters and/or pandemics, and, down the road, quite possibly from other nations.⁵

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⁵ The Committee makes this assertion based on statements by current and former directors of the Canadian Security Intelligence Service, the former Minister of Public Safety and Emergency Preparedness, and discussions with national security experts in Canada and abroad. Its judgement is not based on any comprehensive government threat

Guiliano Zaccardelli, Commissioner of the Royal Canadian Mounted Police, testified in early May that he expects that a terrorist attack will occur on Canadian soil. The United States, Indonesia, Spain, Kenya, Saudi Arabia, Iraq, the Philippines, Australia and Britain have already been hit. Canada has an unenviable place on Osama Bin Laden's list of countries to be targeted.

As for threats from nature, unpredictable weather conditions produced by global warming make the type of natural disaster crises that have brought Canadian Forces to the rescue in the past even more likely in the future.

Finally, while threats from other nation states have gone into abeyance for the moment, centuries of history tell us that these types of threats never disappear for very long.

The Americans will take care of us. Americans look out for their own interests first and foremost, and so should Canadians. The dependence of one nation depending on another nation for its survival is dangerous. If a nation does not have the physical capacity to defend itself, and to stand up for its economy,

If a nation does not have the physical capacity to defend itself, and to stand up for its economy, its culture, and its society, then how does it define sovereignty?

its culture, and its society, then how do its citizens define sovereignty?

The United States is a great friend of Canada. On a huge number of issues, our interests are complementary. The real test of our sovereignty is whether we are capable of acting in our own interests when those interests do not coincide with what any particular U.S. government deems American interests to be. The interests of the two countries will not always coincide.

During the two World Wars, Canada stood proud and independent on the world stage, well before the United States became involved. In those days, Canadians knew that our During the Second World War our military was our ticket to survival.

survival as a nation was likely to depend on our military capabilities. Canada needs the capacity to stand proud and independent again.

assessment, because none exists. See Appendix III for a description of the military threat to Canada, excerpted from the report Chief of the Defence Staff's Action Team I.

How We Lost Touch With One of Our Most Important Institutions

From well before Confederation through to the Korean War, Canadians knew that nationhood was – at least in part – predicated on maintaining strong armed forces. Many Canadians have since lost touch with their military. They don't know anyone who has served in the armed forces. That would have been unthinkable for many previous generations. Nor do they know how important those people are to their physical well being or the international advancement of their interests.

There have been very few important institutions that have suffered greater marginalization within Canadian society within the last half-century than our armed forces. There are a variety of reasons for this.

The first is "out of sight, out of mind." Uniformed military personnel are not common in most communities, with many bases located in remote areas. There is no conscription, so most Canadian families are unconnected to military personnel. There has been no mandatory participation of the Reserves in domestic or overseas deployments, as they have been used in the United States (most recently, in Iraq). The deaths of Canada's sons and daughters have not pervaded the lives of Canadian communities the way they did during the two world wars. Deaths resulting from military duty have blessedly become more rare.

Secondly, Canada has become a less-vital component of defending freedom since the Second World War, when we rushed to the rescue of Britain and other European countries far earlier than did the United States. After the Second World War, the Americans took the lead. The Cold War was seen – to a large degree – as a showdown between the Soviet Union and the United States. Canada's contribution, while important, was not of consuming interest to most Canadians.

Military non-involvement started to make sense to many Canadians as many of their American neighbours started dying for causes that were not as clear-cut as the defeat of Nazi Germany, Italy and Japan. America went to Vietnam. Canada did not and it would be hard to find many Canadians today who believe that refraining

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⁶ The Canadian government has never chosen to invoke the section of the National Defence Act whereby "The Governor in Council may place the Canadian Forces or any component, unit or other element ... or any officer or non-commissioned member ... on active service anywhere in or beyond Canada" *National Defence Act*, Chapter N-5, 31.1.

from joining the United States in that war was a bad decision.⁷ The United States has become deeply involved in the Middle East. Canadians participated in the 1991 United Nations-sanctioned liberation of Kuwait, but we stayed home during the reprise fight to topple Saddam Hussein.

This marginalization was compounded by the government's ability to cut the discretionary spending dedicated to national defence.

For a variety of reasons then, we lost touch with the importance our military. Our indifference was compounded by what appeared to be government indifference – the first place the government looked to cut spending in the 1990s was the military, reinforcing the image that defence was a peripheral concern. Just as government interest can stimulate public interest – and vice-versa – so can public indifference and government indifference produce the type of monumental lack of interest in the military that pervaded the Canadian psyche at the end of the 20th century. Everyone went to sleep.

Why Canadians Need to Come to a New National Consensus

Now is the time for a new consensus on national defence. Canadians need one because Canada faces real threats, as discussed above. We also need one because we have thousands of soldiers in harm's way. And, finally, we need one because we are at a crossroads of regeneration or decline for the Canadian Forces.

Our duty of care to the troops in the field. Canada has contributed significantly to the Global War on Terrorism since September 11, 2001 and will continue to do so. We were in Afghanistan soon after 9/11 and have been there, in one capacity or another, ever since. Despite the casualties Canada has incurred

We have more than 2,300 of Canada's sons and daughters in one of the most dangerous places in the world, and 32 million Canadians should be there with them.

over the last five years, journalists are only now beginning to pay the Canadian mission the attention it deserves. Ditto for politicians. Debate over the mission in

⁷ Canadian Forces personnel did play a minor role in Vietnam. They participated in the International Commission for Control and Supervision (ICCS), which supervised the withdrawal of U.S. Forces from 1973-1975. Also, the Canadian Forces played a role in non-combat evacuations of in 1975 and refugee transport in the late 1970s.

Parliament has been peripheral. Canada's involvement in Afghanistan wasn't even a major issue during the last election campaign.

We have more than 2,300 of our sons and daughters into one of the most dangerous places in the world, and 32 million Canadians should be there with them, but until recently most Canadians probably didn't even know they were there.

We should know exactly what it is they are doing there. We should be arguing about whether or not they should be there and for how long. The last thing we should be is indifferent to them. No matter what we think about the rationale for this mission, we have a duty of care to these people. They are there for us. We need to be there for them.

The Canadian Forces are at a crossroads. The neglect of the Canadian Forces has come home to roost. Infrastructure needs repair. Equipment needs replacement. New roles need to be fulfilled. The government has made some commitments to correct this decay.

How thorough or wide-ranging has the debate been on these initiatives? How many people could discuss whether the government's promises will rebuild the Canadian Forces or simply patch over their problems? How knowledgeable are Canadians as to what kind of money it will take to rebuild the military? Do most of us have any idea as to whether the balance between the demands being made of the military and the tool that they are being given to meet those demands are reasonable, as some would contend, and badly out of whack, as others assert? The new government says it is concerned about revitalizing the military. How concerned? Concerned enough to do the job right, or just concerned enough to neutralize criticism from people who understand what is missing?

At the moment, most Canadians do not have enough information to wrestle with these questions. It is important that they get enough information. A country's self-defence is not a peripheral issue. It should be its primary issue.

The Essential Players

Three powerful forces must come together to give Canadians the armed forces they need:

- 1. The Government of Canada (with the support of the House of Commons and the Senate)
- 2. Senior Commanders in the Canadian Military
- 3. The Canadian Public
- **1. The Government of Canada.** Successive governments have failed to engage the public in dialogues on issues such as
 - what kinds of threats Canadians face;
 - what citizens can and cannot expect from their armed forces;
 - what impact military capacity and military activities are likely to have in advancing the country's national interests; and
 - how the country should measure the success (or failure) of any given mission.

More about this issue in our next report.

2. Senior Commanders of the Canadian Forces. Successive generations of Canadian Forces leaders have not kept the public informed as to their best assessments of the resources the Canadian Forces need to defend Canadians and their interests. In democracies, military authority is subordinate to political leadership. Government regulations discourage military commanders from being candid. The combination helps lead to public ignorance of holes in our defence framework.

Senior officers testifying to our Committee have proven to be extremely capable at rationalizing government policy. They have focused on their ingenuity at getting their job done with whatever tools they are given, rather than being forthcoming about how deficient the tools have been. Regulations – government-wide and military – limit their ability to make comments that could be construed as critical of policy. With some notable exceptions, this means the Committee has often been frustrated at eliciting these officers' best professional judgment as to what is required.

In some countries – most notably the United States – senior military commanders are required to publicly provide their legislatures with their best professional judgments of their areas of responsibility. Canada has no such requirement, and the public is the loser because of it.

More about this issue in our next report.

3. The Canadian Public. How many Canadians are aware of our country's slow lift-off in getting relief to victims of the South Asian tsunami at the end of 2004? What percentage have any kind of grasp as to how badly our military has been neglected over the past two decades? Have Canadians been presented with enough information to judge what would constitute success or failure for our current mission in Afghanistan? These are important issues. Some Canadians have a handle on them. Many – far too many – do not. And yet, we Canadians have not collectively been able to muster enough anxiety about any of these issues to move the revitalization of the Canadian Forces to the Government's priority list of important issues. There are Canadians – outside government and outside the military – who understand how unfortunate this is. They need to speak out.

Leadership and Political Will

The Committee believes that cabinet ministers, senators, members of the House of Commons, columnists, reporters, academics, military commanders, rank-and-file soldiers, ex-soldiers, and every other Canadian with insights on the importance of the military should do everything in their power to transfer those insights to the public at large. Only then can a healthy national discussion begin.

Once Canadians are presented with all the arguments, we believe they will understand the scale and urgency of the challenges facing the Canadian Forces.

If public support is not forthcoming, it makes it much more difficult for any government to come up with the kind of political will needed for profound (and expensive) change. But even if public attitudes do not shift dramatically, the Committee calls upon the Government of Canada and all federal politicians to do what needs to be done to protect Canada, its people and its interests. This cannot continue to be a peripheral file on Parliament Hill.

Yes, both the Government of Canada and the Official Opposition have committed themselves to restoring the capacity of the Canadian Forces to defend and protect the lives and interests of Canadians.

The Prime Minister has made important symbolic gestures. His personal visit to our troops on the ground in Afghanistan has immeasurably bolstered the overall morale of our Canadian Forces. But symbolism is only a beginning.

And what about the other three hundred and eight members of the House of Commons and one hundred and five Senators that make up the Parliament of Canada?

Even if the public's concerns over the capacity of our armed forces to respond to crises never climbs close to the top of public opinion polls, our politicians must recognize how essential the revitalization of the Canadian Forces is to this country and its citizens.

If Canadians have not yet engaged in this issue, politicians are going to have to lead Canada in a new direction and do what needs to be done. Leadership is the issue and leadership requires political will. It is a crucial component of any democracy and Canadian politicians need it now.

When political will enters the mix, things get done. Take procurement. Although the "average" large military project takes a painstakingly long time to come to fruition, there are a number of historical examples where major projects delivered equipment in a very short time. The acquisition of the Canadian Forces' Airbuses, Challenger executive jets, Griffon helicopters and one-and-a-quarter ton trucks all spring to mind.

They were all fuelled by one common elixir: political will.

Take Canada's preparation for its current deployment to Afghanistan as an example. The Government decided that it had to purchase \$234 million worth of equipment for the Canadian Forces in order for the mission to succeed.⁸ Rules about buying Canadian, Industrial Regional Benefits, and sole-sourcing seem to have been expedited in favour of what was needed to protect our men and women

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⁸ Department of National Defence, "Backgrounder: Army Equipment for Operation Archer" (November 29, 2005), http://www.forces.gc.ca/site/newsroom/view news e.asp?id=1833.

in the field. In this case, the combination of undeniable need and political will meant: *Presto!* The acquisitions happened.

Things can happen very quickly in Ottawa when decision-makers want them to.

The Committee's Role

The reason for this Report is that the Committee believes that Canada is facing urgent challenges in the physical protection of its citizens. We cannot sit back and cross our fingers, hoping that words will give way to action.

Some changes need to be made, and made quickly. The recommendations that follow address some of the chronic problems facing Canada's armed forces.

PART II

Directional Challenges



Political will is essential to military renewal. But the Government also needs to ensure that it

- A) Has a sound strategic policy in place and sticks to that strategy;
- B) Puts sufficient funds behind the strategy; and,
- C) Moves bureaucratic hurdles out of the way.

It is the Committee's assessment that the government is headed in the right direction on each of these requirements, but has more road to travel.

The strategic plan and the need for additional money will be addressed in this chapter. Moving bureaucratic hurdles out of the way will be an area of focus in our next report.

CHAPTER 1

Follow Strategic Policy

A coherent defence policy is a fundamental prerequisite to the revitalization of the Canadian Forces. The Committee's lead question to Minister of National Defence Gordon O'Connor when he testified on May 8, 2006 zeroed in on policy:

Senator Forrestall: We work under the assumption that the government's defence policy is the defence policy statement published in April 2005, and the commitment your government has made during and since the election campaign. Is that generally a fair interpretation of the way in which the government is proceeding?

Mr. O'Connor: Currently, we are developing a capabilities plan. Over arching that plan will be a policy statement philosophy that will encompass our campaign statements and much of the previous policy. The Defence Department will go forward once that capabilities plan is approved by cabinet. It will be the department's guiding document.

It is important that the country get a look at the new capabilities plan and the updated policy statement as soon as possible. In their absence, the Committee can only go on the Minister's general approach, which is very encouraging.

The Minister says Canadian defence policy will be an amalgam of his government's commitments and the previous government's Spring 2005 International Policy Statement, *A Role of Pride and Influence in the World*. The Committee supports the general direction of both and believes the government should move quickly toward their implementation.

That being said, the Committee has three concerns about this policy framework. These will be discussed at greater length in later chapters and in the Committee's next report. They can be broadly stated as:

1. Whether the framework will create sufficient military capacity to meet Canadians' needs in the coming years;

- 2. Whether these plans can be implemented under current funding commitments; and,
- 3. Whether there are more innovative and efficient ways of achieving these objectives (see Part IV and our next report).

The second concern is critical. The last defence policy, the *1994 White Paper* on *Defence* was an enlightened document, full of promises about how Canada would invest intelligently in Canada's armed forces to ready them for the 21st century. As mentioned earlier, the money to implement that policy never appeared, leaving the Canadian Forces in their current state, in need of people, money and equipment. Policy is just a bag of words without money.

CHAPTER 2

Providing Adequate Financing

Gordon O'Connor, Minister of National Defence, told us on May 8, 2006 that the government's plan is affordable.

The government's pledge of \$5.3 billion over five years to the Department's baseline budget, in addition to the previous government's Budget 2005 commitment of \$12.8 billion over five years, is a welcome signal that it is serious about addressing the state of the Canadian Forces.

However, we are also convinced that the Government is underestimating both the funding shortfall facing the Canadian Forces and the cost of its new commitments.

Bottom line: Current plans are not affordable with the money promised to date.

Falling Behind

The majority of federal spending is mandatory – it automatically flows into legislated programs, such as old age security. The Government cannot make spending adjustments to these kinds of programs without passing further legislation. Defence spending, on the other hand, is largely discretionary. Without pressure from the public to maintain a healthy military over the past number of years, politicians have withdrawn funds from defence whenever they wanted money for other causes.

The Department of National Defence has then been expected to do what it could with the money it had been granted. The cart was put before the horse. Rather than defining the security needs of the Canadian people and finding the funds to meet them, the needs were almost always expected to adjust themselves to the money forthcoming in any given budget.⁹

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⁹ There was one exception to this upside-down approach. In 1987, the Government decided to shape its defence budget to produce the military capabilities required to meet Canada's Cold War defence commitments at the time. When it became obvious that the military needed a larger budget to do its job, it was allocated.

The 1994 White Paper on Defence should have been followed by a revitalization of Canada's military. Instead it was followed by a series of cutbacks in military spending. In 1983-84, defence spending constituted 1.7 per cent of Canada's Gross Domestic Product (GDP). By 2000-01, it had plunged to 0.9 per cent. It took until 2004-05 for it to rise to 1% of GDP again. 10

One can argue that there was good reason for two decades of spending cutbacks – two successive governments decided to fight Canada's mounting deficit and debt and had strong public support in doing so. The battle against debt has had a long and extremely successful run, and Canada's finances are in good order. We need to continue to be fiscally responsible, but continuing to starve essential programs cannot be part of that responsibility. There is no more onerous duty for any government than the protection of its citizens.

The impact of underfunding

The government relies on the Canadian Forces to protect Canadians and their vital interests at home and abroad and to enforce Canadian sovereignty. These are vast and critical responsibilities. They cannot be met as long as Canada's military continues to be underfunded. The Government's options for performing these core tasks are going to be limited for at least the next decade – and for longer if the underfunding continues. The Government's options for performing these core tasks are going to be limited for at least the next decade, even if the appropriate amount of funding were to be invested right away. The Government's options will be much more limited if the underfunding persists.

The consequences have not been dire yet, but neither have they been pretty:

- Underfunding of personnel coupled with a high operational tempo led to burnout and forced the previous Government to declare an operational pause;
- Underfunding of tactical airlift has led to the permanent grounding of 2 aircraft and the general deterioration of the entire Hercules fleet;

¹⁰ Ibid. http://www.fin.gc.ca/frt/2005/frt05_2e.html#Table8. Accessed 8 May 06. See Appendix III for a chart depicting DND budgets as a % of GDP from 1983 to 2005.

- Underfunding of the Navy will mean the loss destroyer-based Command and Control capabilities before they can be replaced;
- Underfunding of recruiting and training has created an organization that does not have the flexibility to grow extremely quickly; and,
- Underfunding of infrastructure has led to a deferred maintenance bill over the last five years alone of almost \$1 billion.

None of these failings in themselves are likely to cause the collapse of Canada's defence capacity. But collectively they present a worrisome picture.

Estimating the Department of National Defence's 2011-2012 Budget

In our last report, *Wounded*, the Committee estimated that a reasonable annual cost for the military that Canadians need is around \$25 Billion to \$35 Billion a year.

That was before the current government promised to create a range of new capabilities — including the capacity to protect Canada's Arctic sovereignty. The Committee now believes that the annual realistic cost is at the high end of this range — around \$35 billion a year.

No one expects an increase of this magnitude to appear overnight. That having been said,

They laughed at us when we sat down to play the piano

In 2002, the Committee recommended a \$4 billion dollar increase to the Department of National Defence baseline and an operational pause in the Canadian Forces. Its recommendations were roundly criticized as unrealistic.

Within four years, both recommendations have been or are being implemented.

the Forces will require an urgent infusion of funds this year and a sustained growth to higher baseline budget levels over several years thereafter to push Canada's military capabilities to where they need to be.

The critical assumptions underlying the Committee's calculations are that the Government needs to – and should:

- Create a Canadian Forces with an authorized strength of 90,000 personnel;
- Address the critical shortfalls facing capital equipment and infrastructure;
- Enhance the strategic mobility of the Forces; and,
- Continue moving forward aggressively with Transformation.

If any of these (necessary) steps are not taken, the cost estimate will, of course, shrink. But we are dealing with what should happen and what we feel must happen, which is not always the same as what does happen.

The Committee estimates that the Department of National Defence budget needs to stabilize at our target in fiscal year 2011-2012, around the same time that the Forces reach the authorized strength of 90,000 that we will recommend in Chapter 3.

We do know that true and lasting rehabilitation is going to cost a lot more than a one-time infusion of \$12.8 billion as committed by the last government in Budget 2005, or than the

A \$35 Billion National Defence Budget is not unreasonable

If increasing the defence budget over the next five to six years to double its current level seems unreasonable, consider the percapita defence spending of the following countries, calculated in Canadian dollars:

> United Kingdom \$903 The Netherlands \$658 Australia \$648 Canada \$343¹¹

additional \$5.3 billion promised by the new government in Budget 2006.

Developing military capabilities often costs more than what has been estimated. There are unforeseeable costs to new pieces of equipment, despite best efforts to minimize them. Contracts pushed out far into the future always have an inherent cost risk.

¹¹ In the interest of comparability, all four amounts in this list were calculated based on data obtained from The International Institute for Strategic Studies, *The Military Balance 2006* (London: Oxford University Press, 2006). While there might appear to be a discrepancy between the numbers above and those on page 9 of the Committee's last report, *Wounded*, that is not the case. The numbers reported in *Wounded* are based on extrapolations of the Department of National Defence's *2005-2006 Report on Plans and Priorities* and would include both money announced in Budget 2005 and money the Department plans to receive in Supplementary Estimates over the course of Fiscal Year 2005-2006.

Moving Forward

The Committee's estimate of the funding needed to make the Canadian Forces competent to perform their onerous responsibilities prompted a lot of shaking of heads when we first published them, but there has been a more realistic nodding of heads since then. It is important to put these numbers in context, starting with what the previous government had promised and what the current Government says it has in mind for revitalizing the Canadian Forces.

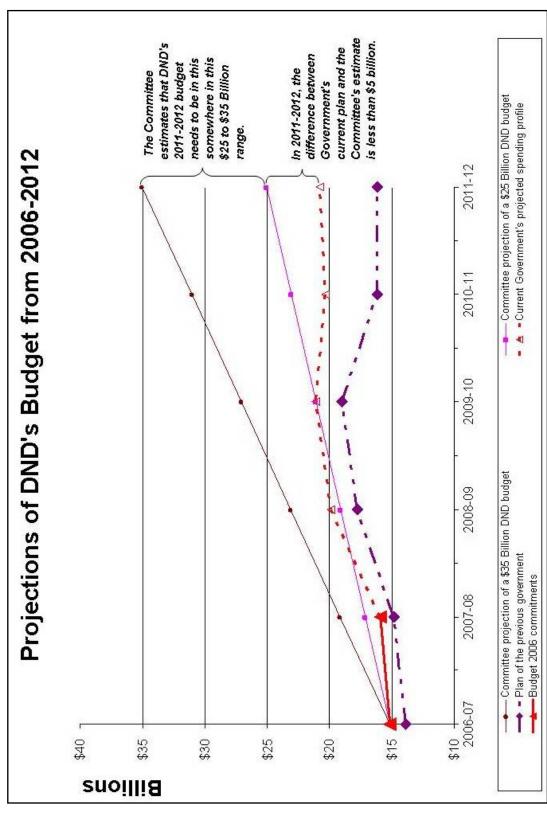
The Government has promised to allocate \$5.3 billion over and above what the previous government promised. As Minister of National Defence Gordon O'Connor testified: "We are building on the Liberal plan. Everything is on top of the Liberal plan."

This means that the Department of National Defence's budget will be approximately \$15.19 billion this year and approximately \$15.9 billion next year. ¹² The Government did not announce in the budget the year-on-year increases for the remaining three years of its commitment. But Mr. O'Connor did testify that: "If we stay on track with our current plans, out at the fifth year, which I think is 2011, we expect our budget to be about \$20.3 billion."

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¹² Based on its Main Estimates and the government's Budget 2006 promise to allocate an additional \$401 million to the Department.

¹³ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca.



2011-2012. It compares the Committee's recommended \$25-35 billion budget in 2011-2012, the previous government's promises and the Figure 2 -- This chart outlines rough order of magnitude budget projections for the Department of National Defence between now and government's likely defence projected spending profile between now and then. The difference is not that great.

Only baseline increases are real increases.

The Committee believes that the Government's commitment of \$5.3 billion to the baseline of the Department's budget over five years is a positive sign of its commitment to the revitalization of the Canadian Forces.

It is important to note that the Minister has stated that the Government's announced increases will be added to the baseline of the Department's budget.

One-time increases to the defence budget, often provided for acquisition of equipment or more personnel without permanent increases for operations and maintenance, can actually hamstring the Department in the long run. Increases to the baseline are different.

The previous government had promised a one-time injection of \$12.8 billion over the next five years on top of a relatively steady baseline. Roughly \$11 billion of that commitment was scheduled for the fourth and the fifth years.

The Committee applauds the new Government's approach. It will provide more funds to the military and add a measure of spending stability.

The Department's budget will stabilize at around \$20.3 billion in 2010-2011. With a follow-on increase in 2011-2012 for inflation, it will only be \$4 billion shy of the low end of the Committee's projections, but \$14 billion shy of the more realistic high end.

Bottom line: The difference between what the Government currently proposes and what the Committee recommends is not the difference between a \$14 billion budget and a \$25 Billion to \$35 Billion budget. It is the difference between a \$20 billion to \$21 billion budget and a \$25 Billion to \$35 Billion budget. There is still a gap there, but not as huge a gap as some critics were pretending.

The Impact of the Clawback

The previous Government's 2005 federal budget allocated \$12.8 billion in additional defence funding over five years, as follows:

(\$ millions)

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	Total
National Defence	500	600	1,558	4,466	5,704	12,828

The new Government tabled a federal budget in May 2006 and it provided DND more funding over and above the funding providing by the last government.¹⁴

(\$ millions)

	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	Total
National		401	725	TBC	TBC	TBC	5,300
Defence							

During the time of the previous Government, the Expenditure Review Committee identified cumulative savings across the government that totalled \$10.9 billion over five years, starting in 2005-2006. Just over 89 per cent of these savings – \$9.8 billion – was to have come from improved efficiencies.

Between 2005 and 2010, DND was expected to give back \$640 million, as follows:

(\$ millions)

(ψ mmmons)							
	2005-	2006-	2007-	2008-	2009-	2010-	Total
	2006	2007	2008	2009	2010	2011	
National	34	88	143	172	203		640
Defence							

So, while giving with one hand, the previous Government was also taking with the other. The real increase to defence spending was \$12.8 billion – minus the \$640 million clawback – or \$12.2 billion.

The loss of \$640 million is significant. It equates to the cost of a fleet of uninhabited aerial vehicles for maritime and sovereignty surveillance, or the acquisition of modern armoured reconnaissance vehicles to protect Canadian troops on dangerous overseas missions.

¹⁴ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca.

This funding will be lost if this Government allows the original Expenditure Review Committee program to continue.

Appearing before the Committee on May 8, 2006, the Minister of National Defence said:

"I believe the intent of the Government is to do away with clawbacks, but we are in the midst of it and trying to figure a way out of it. I cannot give you a definitive answer but that is the trend. The ministers are looking at this to determine what they can do about those clawbacks because it is not the way we budget. If we are to give \$1 billion, then you will get \$1 billion. Right now, we are in a financial bind brought about by the previous plan, and we are trying to get out of it. My expectation is that the dollars stated for defence will be the dollars that defence will receive."

The Committee agrees with the Minister and would strongly support the Government if it decides to move to eliminate clawbacks affecting the Department.

The Impact of Accrual Accounting

The new Government's announcement that it will go ahead with accrual accounting will have an as yet undetermined impact on the budget of the Department of National Defence.¹⁵ Accrual accounting is an accounting principle that is being implemented government-wide as part of an effort begun in 1995 by the Treasury Board to get a more comprehensive picture of the Government's assets and liabilities.

In the words of the Office of the Auditor General, "Accrual financial information helps users appreciate the full financial scope of government—the resources, obligations, financing, costs, and impacts of its activities, including the costs of consuming assets over time. This more complete picture helps legislators hold the

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¹⁵ Government of Canada, Budget Plan 2006, 136. Available at: http://www.fin.gc.ca.

government accountable for the stewardship of its assets, the full costs of its programs, and its ability to meet short-term and long-term financial obligations." ¹⁶

What this means for defence is that the Department can spread the cost of a piece of capital expenditures such as buildings or major equipment over its useful life instead of listing its entire price in the year it is paid for.

Col (ret'd) Brian MacDonald, Senior Analyst with the Conference of Defence Associations Institute and a proponent of moving to accrual accounting, uses the replacement of the Army's medium trucks as a "simple thought experiment" to illustrate the potential impact of this new accounting method. To summarize Mr. MacDonald's argument:

The Army's trucks are old and overdue for replacement. New trucks come with a price tag approaching \$957 million. There is not enough room in the capital budget over the next few years to accommodate a cost that large. However, if accrual accounting rules applied, new trucks would be far more affordable. Instead of having to find \$957 million for new trucks in the year they are purchased, the Department would incur a charge of one-twentieth the total cost, or about \$48 million, each year over their expected 20 year lives. Not only would it be possible to acquire more new equipment sooner, the Forces would save on costly life extension programs to keep existing trucks running.¹⁷

Minister Gordon O'Connor made a strong case to us that accrual accounting was one of the reasons that the Government's plan was affordable. According to Mr. O'Connor, "If we wanted to buy a piece of equipment that has 20 years' life, we amortize the cost of the equipment over 20 years. ... A budget increase in a particular year, if you take pieces of it for capital, each piece can basically be [divided] by 20. That is the way the accounting works. Yes, the money is there." 18

It is certain that accrual accounting will impact Department of National Defence budget planning and will free up considerable room for increased expenditures on capital equipment.

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¹⁶ Office of the Auditor General, "How accrual financial information improves information for decision making," 2005 Status Report, available at: http://www.oag-bvg.gc.ca/domino/reports.nsf/html/20050208se01.html. Last accessed 10 June 2006.

¹⁷ Col (ret'd) Brian MacDonald, "Closing the Policy Gap", Transforming Defence Administration, 46-52.

¹⁸ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca.

But the Committee does not see accrual accounting as any kind of cure-all for budgetary shortfalls. Accrual accounting only relates to capital expenditures. Accrual accounting will not impact personnel, operations or maintenance costs, which make up the vast majority of departmental spending. The Committee is convinced that even with accrual accounting, there will be more demands for spending than funds available to address them.

A detailed evaluation of the impact of accrual accounting will not be possible before the release of the Defence Capabilities Plan and the Department's Report on Plans and Priorities later this year.

The Committee's Projections: Arriving at Our Estimate of \$25 Billion to \$35 Billion

Committee Projection of 2011-2012 Department of National Defence Budget			
	Projected Dollars	% of Budget	
Personnel	\$12.5-15.5 billion	45-50%	
Capital	\$6-11 billion	30%	
Operations & Maintenance	\$6-11 billion	30%	
Statutory, Grants and Contributions	\$1.3-2 billion	5%	
TOTAL:	\$25 Billion to \$35 Billion	100%	

None of these numbers is etched in stone. The Committee accepts that there are many ways to make ends meet, and that increasingly creative ways may be found to put together armed forces that can do the job that Canadians need done. But one simply cannot ignore the fact that there is a lot of catching up to do given years of neglect.

Overall, it is difficult to see how anyone could argue against the fact that virtually every component of the Department's budget is going to require a greater infusion

of money in absolute terms. Certainly the increases required to correct capital equipment and infrastructure shortfalls are going to require *a lot* more money.

Let us consider each component in turn.

Personnel

Personnel costs include salary, benefits, pension contributions, and personnel-related O&M like clothing, medical, rental of living quarters, and so on. ¹⁹ The Committee estimates expanding the Canadian Forces to 90,000 (which the Committee will recommend in Part III) would cost between \$12.5-\$15.5 billion annually, up from more than \$7 billion this year. ²⁰

Comparison of Government and Committee Growth Projections for the Regular Force				
	Total Force Size	Committee's Estimate of Annual Cost	Completion Date	
Government Planned	75,000	\$9.6 billion - \$2.6 Billion	2010-2011	
Expansion				
Committee	90,000	\$12.5 billion - \$15.5	2011-2012	
Recommended Expansion		billion		

The majority of the estimated escalation is due to increased salaries and benefits for an expanded Canadian Forces. It is based on the gradual expansion of the Regular Force to an authorized strength of 90,000 by 2012 – approximately 28,000 more than the current level; 23,000 more than envisaged in the Defence Policy Statement and 15,000 more than promised by the new Government.

The Committee estimates that the cost of each additional 10,000 military personnel to be approximately \$2 billion.²¹ Based on that estimate, it is reasonable to calculate that fulfilling the Committee's recommendation of expanding the Regular Forces by an additional 28,000 personnel would cost at least \$6 billion annually.

¹⁹ Department of National Defence, Making Sense out of Dollars 2005-2006, 46.

²⁰ Department of National Defence, *Making Sense out of Dollars* 2005-2006, 46.

²¹ The Committee bases this estimate on a rough order of magnitude calculation that each additional member of the Canadian Forces would cost approximately \$150,000-200,000, including salary, benefits, health care, training, personal kit, living facilities, and space to work.

This cost will not be as great if the Government decides to hold itself to its election commitment of increasing the Forces to 75,000 personnel overall. The Committee estimates that fulfilling this promise – ie. expanding by only 13,000 additional personnel – would cost approximately \$2.6 billion annually. That having been said, the Committee is convinced that at some point the Government will recognize that their promised increase will not deliver close to enough personnel to maintain a capable, sustainable military that is going to be tasked at the tempo of recent years.

(The Committee has chosen to focus on the Regular Force in this study but it believes that the Reserve Force will continue to be an important part of the Canadian Forces mission.)

In addition to the extra costs associated with a larger force, the Committee believes that the Forces will also face significantly higher recruitment and retention costs as they try to:

- a. Expand to 90,000 personnel;
- b. Retain personnel approaching natural retirement points; and,
- c. Address the challenge of undermanned trades.

Expanding to 90,000 personnel will mean significantly higher recruitment costs. The Forces will have to attract larger pools of people to the Forces than at any other time in decades. Convincing so many of today's young people to join the Canadian Forces will require unprecedented effort and creative solutions – both of which will cost money.

Retaining personnel approaching natural retirement points will also cost significantly more in coming years. As the Committee described in its last report, *Wounded*, the Canadian Forces are facing a demographic bulge as much of their workforce approaches eligibility for retirement. Many of those who might be getting ready to leave have invaluable knowledge and experience that the Forces can ill afford to lose, especially as they grapple with expansion. However, retaining such quality people will undoubtedly require incentives, which cost money.

The final element of increasing personnel costs is the challenge of fixing chronically undermanned, or stressed, trades.²² The Canadian Forces will continue to be plagued by a personnel crisis until it can assure that the problem of undermanned trades is addressed.

To address these so-called stressed trades, it is necessary to entice a large number people in highly sought-after trades – like doctors, dentists and mechanics – to choose the Canadian Forces; and conversely, it will be necessary to dissuade personnel in highly sought-after trades from choosing to leave the Forces with their expertise. Again, this will involve incentives.

Expanding the capacity of the Forces to provide additional post-secondary, graduate and post-graduate education for its officers (as the Committee will discuss further in its next report) will also carry a cost.

Breakdown of Committee Estimate of DND 2011-2012 Budget - I				
PERSONNEL COST IN 2011-2012	APPROX COST			
 Current 62,000 civilian and military personnel 	\$7.7 billion			
• 28,000 additional military personnel; (per committee recommendation to create an authorized Force of 90,000 personnel)	\$3 billion			
 Increased recruiting and retention costs (per committee recommendation to address stressed trades and jumpstart recruiting) 	Unknown			
TOTAL COST – PERSONNEL	\$10-13 billion			

Capital Funding: the Need for Disaster Relief

Years of underfunding has forced the Department of National Defence to fall behind in the replacement of existing equipment and the acquisition of new capabilities. The existing listing of projects that must now be tackled – from ships to aircraft to trucks, and buildings that need to be replaced, built or bought – is long and expensive. That is why capital funding is the area in which spending must increase the most.

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²² Please see Part III for a more detailed discussion of stressed trades.

The Department spent 16.7 per cent of its budget last year on capital.²³ As the Committee pointed out in *Wounded*, this percentage simply does not provide enough money to prevent a decline in equipment and infrastructure. Last year was a fairly typical year and is indicative of a cycle that cannot be allowed to continue.

The Department has tried to increase capital expenditures on equipment and infrastructure for many years, without much success. It even tried to formalize the pegging of its capital spending as a percentage of overall defence spending in 1999. In *Shaping the Future of Canadian Defence: A Strategy for 2020* the Department set out a five-year target for capital spending that was intended to lead to a "viable and affordable" defence structure.²⁴ That goal was to be achieved by spending a minimum of 23 per cent of every annual defence budget on equipment and infrastructure. As a first step, *Defence Planning Guidance 2000* set an interim goal of 21 percent by April 2004. The Department of National Defence never got close.²⁵

As the Department's Assistant Deputy Minister of Materiel Alan Williams testified to the Committee in November 2004:

"We are trying to balance paying people, paying for infrastructure, buying new equipment and sustaining existing equipment. You must make those prioritization decisions. [Capital spending] is often the one that is [neglected], because you must pay people, you must sustain the equipment, and you have to house the people, as well as have proper facilities for the equipment. Therefore, it is not surprising that what must be affected most is front-end capital."²⁶

Setting a firm, ambitious, target for capital-funded renewal as a percentage of overall Departmental spending would be a reasonable way to correct past investment deficiencies, to restore the Forces' major weapons systems and capabilities, and to rationalize major procurement schedules for the future.

²⁴ Department of National Defence, Shaping the Future of Canadian Defence: A Strategy for 2020.

²³ Department of National Defence, *Making Sense out of Dollars* 2005-2006, 44.

²⁵ Office of the Auditor General, *October 2000 Report*, "Chapter 4 -- Follow up on 1998 Report on Buying Major Capital Equipment," available at: http://www.oag-bvg.gc.ca/domino/reports.nsf/html/0016ce.html.

²⁶ Assistant Deputy Minister Material Alan Williams, "Testimony," Proceedings of the Standing Senate Committee on National Security and Defence (November 1, 2004), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Com-e/defe-e/02ev-

e.htm?Language=E&Parl=38&Ses=1&comm id=76.

The Committee applauds the *Strategy 2020* attempt to reach a 23 per cent goal, but it isn't going to be sufficient considering the continued deterioration of equipment and infrastructure. A healthy armed forces budget assigns approximately 25 per cent to capital-funded equipment and infrastructure replacement. The Committee believes that a more appropriate level would be approximately 30 per cent.

Why? Because the Forces are fighting from behind. The under-capitalization of the Forces has continued for almost seven years since *Strategy 2020* was published. Since then, the capabilities of the Forces – from the availability of the Air Force's Hercules transport aircraft to the age of the Navy's Destroyers to the state of base infrastructure – have continued to deteriorate.

Take, for example, the state of infrastructure. In *Wounded*, the Committee made the case that the government was falling over \$200 million short *every year* in its Operations and Maintenance spending on the repair of infrastructure across the Forces.

This chronic under-funding has created a huge backlog of deferred maintenance that of course never goes away, but more often than not, creates a much worse situation as roads, buildings and other infrastructure deteriorates past the point of economical repair. At the very least the money must be found to fund necessary ongoing maintenance and stop the decay. In reality, however, additional funding must also be found in the capital accounts to rebuild and replace infrastructure that, due to age and neglect, has passed the point of no return.

Regrettably, a similar situation exists amongst the various fleets of ships, aircraft and vehicles operated by the Canadian Forces. Necessary updates and replacements have been delayed or not done at all and far too much of this equipment has become unmaintainable or operationally irrelevant due to obsolescence.

A number of factors go into replacing equipment. For example, equipment needs to be replaced when it no longer capable of countering threats, when it is technologically obsolete, or when its original manufacturer no longer supports it (making it difficult and costly to get spares or replacements). All of these conditions apply to the Canadian Forces now.

To escape this vicious cycle, the Department will have to dedicate more than what a normal defence organization would to capital spending. The Committee is therefore recommending that the Government fund the Department sufficiently to allow it to dedicate 30 per cent of its budget to capital funding by 2011-2012.

There would be a corollary benefit of to dedicating a firm percentage of budget to equipment and infrastructure: the creation of stable and predictable spending patterns. This will enable the efficient planning of new military equipment acquisition or infrastructure renewal when it is needed. The Forces would then be able to schedule their expenditures in the most economical way possible. This will help avoid the annual reprioritization of projects that compete for too few capital dollars.

Nuts and Bolts

Consider the cost of the largest capital equipment projects that have to be dealt with over the next two decades if the Government is going to implement the Committee's recommendations.

The Committee has estimated its equipment requirements and cost projections based on a Canadian Forces of 90,000 personnel.

Estimated Cost of the Committee's largest Equipment Priorities 2006 – 2025 ²⁷			
PROJECT NAME	Estimated Number Required ²⁸	COMMITTEE'S COST ESTIMATE	
Joint Support Ships	4	\$2,800,000,000	
Strategic Sealift Ships	4	\$4,000,000,000	
Frigate Life Extension Program	12	\$3,000,000,000	
Single Class Surface Combatant ²⁹	18-20	\$15,000,000,000 - \$30,000,000,000	

²⁷ These are rough order of magnitude, indicative, numbers and are intended only to give a sense of scale the projects ahead. These estimates represent acquisition costs and list may or may not include some of the Operations and Maintenance that could be included as part of the project and could comprise about 30% of the above totals.

²⁸ The Committee estimates these numbers as a way to illustrate what the Government will be able to acquire for the estimated cost. In the event that the Government decides not to acquire number of pieces of equipment suggested by the Committee, the cost estimate will change.

	SUB-TOTAL	\$53,010,000,000 - \$76,010,000,000
Next generation fighter aircraft ³⁰		\$7,000,000,000 - \$15,000,000,000
Maritime Helicopter Project	28	\$3,000,000,000
Joint Uninhabited Aerial Vehicle Project		\$500,000,000
Fixed Wing Search and Rescue Aircraft	20-24	\$1,500,000,000
Medium or Heavy Lift Helicopters	16-20	\$2,000,000,000
Completion of CF-18 Modernization	80	\$560,000,000
Completion of Aurora Maritime Patrol Aircraft Modernization	18	\$1,000,000,000
Replacement of Hercules Tactical Airlift Aircraft	20-25	\$4,300,000,000
Acquisition of new Strategic Airlift Aircraft	6-8	\$2,800,000,000
Light Trucks	4,700	\$910,000,000
Medium Trucks	2,900	\$1,430,000,000
Light Armoured Reconnaissance Vehicle	200	\$650,000,000
Artillery	80	\$900,000,000
Land Forces Intelligence Surveillance Targeting, Acquisition and Reconnaissance project		\$1,000,000,000
Integrated Soldier System Project		\$500,000,000
Submarine Life Extension Program	4	\$160,000,000

Government estimates of the total cost of equipment in the decades ahead are likely lower than those of the Committee. That is in part, because it plans to acquire less of some items. For example, the Joint Support Ship. The Government plans to acquire three Joint Support Ships, whereas the Committee advocates four are required for reasons outlined in Part IV.

In addition to the priorities that the Committee has identified, the Government is also planning the following major projects which the Committee estimates will cost:

²⁹ The majority of the cost of this project may not be realized by 2025 if the government sticks to current timelines for procuring the Single Class Surface Combatant. The Committee believes that these vessels must be acquired sooner and in greater numbers than is currently planned.

³⁰ An estimated cost of \$15 billion for the next generation of fighter aircraft is meant as an indicative number only.

Estimated Cost of Additional Government Equipment Projects in Progress				
PROJECT NAME Estimated Number Required COMMITTEE'S COST ESTIMATI				
Armed Navy icebreakers	3	\$3,450,000,000		
Mobile Gun System		\$1,170,000,000		
Multi-Mission Effects Vehicle		\$950,000,000		
	SUB-TOTAL	\$5,570,000,000 Minimum		

Therefore, the Committee estimates that the expected cost of the largest equipment projects facing the Canadian Forces over the next two decades will cost between \$58 - \$81 billion.

Committee Priorities Sub-Total	\$53,010,000,000 - \$76,010,000,000
Other Government Projects Sub-Total	\$5,570,000,000
TOTAL \$58,580,000,00	0 - \$81,580,000,000

It should be noted that the above estimate is not the total cost of all capital projects facing the Canadian Forces. Instead it is a list of the largest ticket equipment items only.

The list does not include the myriad of smaller equipment projects that will have to be acquired on an ongoing basis. To get a sense of the magnitude of those other projects, consider that the 13 most significant capital equipment projects in the Department of National Defence totaled only approximately 55.3% of the total Capital Equipment portion of the department's budget for the year 2004/2005.³¹

Nor does the list include any of the infrastructure construction projects that will have to be addressed. Government priorities like building an a deepwater port

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³¹ Department of National Defence, *Making Sense out of Dollars 2004-2005* (February 2005), 55, available at: http://www.admfincs.forces.gc.ca/financial_docs/Msood/2004-2005/MSOOD04 b.pdf.

and a training centre in the Arctic, moving quick reaction units to the east and west coasts, installing an airborne battalion in Trenton or creating Territorial Battalions will come with hefty infrastructure costs. These priorities will be addressed further in the Committee's next report.

The Committee acknowledges that the Department of National Defence is working on a Defence Capability Plan, which is intended to be a comprehensive list of the capabilities the Canadian Forces must have to fulfill the missions assigned to by the Defence Policy Statement and the government's additional election commitments. That list will obviously include equipment needs. The equipment needs listed in that plan will be critically important. When the Plan is completed and presented to the government for sign-off, the Government should brand it as a roadmap for change.

Breakdown of Committee Estimate of DND 2011-2012 Budget - II			
CAPITAL FUNDING	APPROX COST		
■ Infrastructure recapitalization (per committee recommendation to adhere to Treasury Board guidelines for infrastructure replacement and to address infrastructure decay backlog)	\$500-750 million		
 Major new equipment (per committee recommendation in Part 4 to increase Canadian Forces capabilities as soon as possible) 	\$6-9 billion		
Other capital requirements	\$4-6 billion		
TOTAL COST – CAPITAL	\$10-15 billion		

Operations & Maintenance

As the Canadian Forces enter a period of growth, it is important to recognize that every acquisition of new equipment, every new building constructed, every person brought into the Forces comes with an attendant large tail of costs that continues year after year.

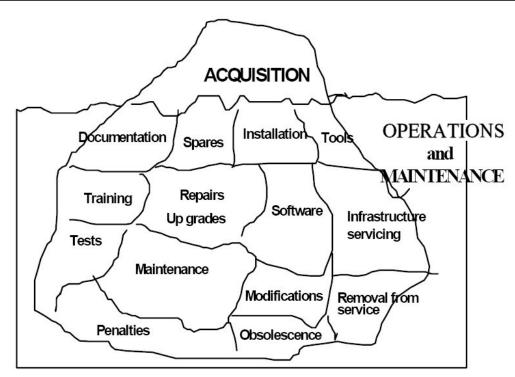


Figure 3 -- The Classic Total-Life Cycle Cost Iceberg. Acquisition is just the most obvious of the costs. Source: "A Particular Aspect Of Decide Bid Decision Support System: Modelling of Life-Cycle Processes and Costs," Paper presented at the IEEE Conference on Systems, Man and Cybernetics (Orlando, Florida), 12-15 October 1997, available at: http://www.esi2.us.es/prima/Papers/mac97.pdf (last visited: June 13, 2006).

The acquisition or construction cost is the tip of the iceberg in terms of the overall costs of a piece of equipment. Spare parts, repairs, training, software and hardware upgrades, even disposal, contribute to the total life cycle cost of a piece of equipment.

Successive Governments have Underfunded Operations and Maintenance

The failure of successive governments over the last twenty-five years to recognize these costs has been one of the contributing causes of the Canadian Forces' current situation.

Shortfalls in national procurement accounts mean that you can't buy enough parts and has often required the shifting of parts between ships or aircrafts or vehicles for operational duty.³² Peter gets robbed to pay Paul, if only temporarily. The

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³² The National Procurement (NP) Program, a sub-element of The Department of National Defence's (DND) Operations & Maintenance (O&M) account, is the portion that is allocated for the centrally-managed acquisition of material and services (excluding realty assets) required to support equipment, services and systems in DND.

process increases wear and tear on parts and ties up technicians who are already in short supply.

Underfunding infrastructure maintenance has a similar impact. The deferred maintenance and recapitalization bill for infrastructure between 2000 and 2004 alone is almost \$1 billion (the recapitalization part of which has been discussed above). That means hundreds of millions of dollars worth of lower-priority preventative maintenance didn't get done between 2000-2004. Skipping preventative maintenance leads to decay taking hold quicker and equipment and/or infrastructure being replaced sooner.

The Canadian Forces must invest significantly more than they have in the past to address the Operations & Maintenance shortfalls.

The growth in Operations and Maintenance costs will be predicated on:

- The need to address the chronic underfunding of the National Procurement account
- The increased size of the Forces to 90,000 personnel as recommended by the Committee
- The increased capabilities of the Forces as recommended by the Committee (in Chapter 4)
- The increased cost of operations and maintenance on technologically advanced new equipment
- The increased levels of readiness promised in the Defence Policy Statement and as recommended by the Committee (in Chapter 4)
- The increased number of missions the Forces can be expected to undertake in the coming years

That is because the Committee believes that some current costs in O&M are inordinately high because equipment is old and needs more substantial attention on a more frequent basis. The purchase of new equipment should mitigate some of those pressures.

New Equipment is Not Enough

In May 2006, Minister of National Defence Gordon O'Connor testified to the Committee that:

"Whenever we replace the current Hercules fleet, which is costing upwards of \$400 million a year to maintain, I think you will find that that new fleet, whichever one it is, will not cost the same amount of money to maintain. That starts to change the O&M [Operations and Maintenance] mix.

...To maintain current medium army trucks is very expensive. As we start to replace the trucks, the cost of maintaining them will go down.

... A lot of the O&M problems are a result of having out-of-date equipment that is costing a fortune to maintain. As we start to move through some of these capital projects, it will start to change that balance. We will certainly improve the O&M problem into the future; not so much by pouring more money into it, but by changing how they are maintaining and upgrading the equipment."³³

The Committee finds the Minister's statement questionable. In November 2004, the Department of National Defence's Assistant Deputy Minister for Materiel, Alan Williams, testified that:

"It is generally believed that the cost to maintain new equipment must be less than that for old equipment. In fact, the opposite is true, with the costs of new equipment often doubling or tripling that of older equipment. New equipment is technologically more complex and involves the maintenance and updates of sophisticated software."

³³ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca.

³⁴ Assistant Deputy Minister Material Alan Williams, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (November 1, 2004), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Com-e/defe-e/02ev-e.htm?Language=E&Parl=38&Ses=1&commid=76.

A plan to reduce O&M by acquiring new equipment appears short-sighted to the Committee because it will often be as expensive, if not more expensive, than existing equipment.

An absolute increase in operations and maintenance spending is required to allow the Forces to address many of the complaints that the Committee has heard about including: inadequate spare parts, having to share equipment, and a lack of flying hours and sea-days to properly train pilots and ship crews.

Breakdown of Committee Estimate of DND 2011-2012 Budget - III			
OPERATIONS & MAINTENANCE COST IN 2011-12	APPROX		
	COSTS		
 Current operations and maintenance cost 	\$4.3 billion		
• Increased cost of:	\$4-7 billion		
 Addressing National Procurement shortfalls 			
 Maintaining higher levels of readiness and maintaining equipment in a larger Canadian Forces 			
- Maintaining modern equipment			
 Additional training exercises 			
TOTAL COST – OPERATIONS & MAINTENANCE	\$8-11 billion		

Statutory, Grants & Contributions

Statutory, Grants & Contributions is an amalgam of non-discretionary legislated funding. It is principally made of contributions to NATO and to academic groups. The former accounts for the vast majority of the spending and can be expected to increase commensurate with an increase in the size of the Canadian Forces. The Committee believes that the latter amount will also have to increase significantly. Details to follow in our next report.

Breakdown of Committee Estimate of DND 2011-2012 Budget - IV		
STATUTORY, GRANTS & CONTRIBUTIONS COSTS IN 2011-12	APPROX COSTS	
Statutory directed contributions (per committee recommendation to international organizations like NATO)	\$1.1-1.5 billion	
Expansion of academic and related programs (see the Committee's next report)	\$200-250 million	
TOTAL COST – STATUTORY, GRANTS & CONTRIBUTIONS	\$1.3-2 billion	

What a \$25 Billion to \$35 Billion Budget Means Relative to the Size of Canada's Economy and What Other Nations Spend

If this year's defence budget were \$25 Billion to \$35 Billion, that would equate to spending between 1.94 per cent and 2.7 per cent of Gross Domestic Product.

Admittedly, if we spent that amount *this year*, it would constitute a hefty price tag for Canada's national insurance policy. It would put us among the top tier of what most of our allies are spending on defence.

However, the Committee is not talking about this year. The Committee believes that the Department of National Defence's budget needs to grow to at least \$25 Billion to \$35 Billion by 2011-2012 as the Forces finish expansion to the Committee's recommended level of 90,000 personnel, aggressively pursue Transformation and begin to take delivery of new equipment. We are saying that the Government needs to add billions more to its projections for 2011-2012.

How much that will be relative to the size of Canada's economy, nobody can be sure. Five years is an eternity to economists. But presuming that the economy grows at a pace consistent with what it has been growing at over the last five years, \$25 Billion to \$35 Billion will not be unreasonable relative to the estimated size of

our economy. The Committee estimates that in 2011-2012 it would constitute roughly 1.58 per cent - 2.21 per cent of Canada's GDP.³⁵

This is not out of line with what like-minded nations currently spend on their militaries, both relative to the size of their economies and on a per-capita basis.

	DEFENCE SPENDING PER CAPITA (\$CDN)	DEFENCE SPENDING AS A % OF GDP
Canada 2005 ³⁶	\$343	1.01%
Canada 2011-2012 based on a \$25 billion defence budget	\$757	1.58%
Canada 2011-2012 based on a \$35 billion defence budget	\$1060 ³⁷	2.21%
United Kingdom	\$903	2.29%
The Netherlands	\$658	1.52%
Australia	\$648	1.98%
United States	\$1,733	3.96%

Please see Appendix IV for a more detailed look at what a number of countries spend on defence.

Comparing ourselves with other countries isn't the way we need to set our defence budget – we must set budgets on the basis of what Canadians need to protect themselves and contribute to world stability. That being said, comparing Canada to other like-minded

Budgets for the Department of National Defence should be based on what feels is it needed to create military security for Canadians.

nations is a useful check. Would spending \$25 Billion to \$35 Billion on national defence be unreasonable in the community of reasonable nations? No.

³⁵ Economic prediction is notoriously flawed. This number is based on a number of assumptions. Most notably that the economy continues to grow at the predicted rate in the Government's *Economic and Fiscal Update 2005* for this year and the two subsequent years and that it sustains that growth through to 2011-2012. Source: Department of Finance, "Chapter 4 - Private Sector Five-Year Economic and Fiscal Projections," *The Economic and Fiscal Update 2005* (October 2005), available at: http://www.fin.gc.ca/ec2005/ec/ecc4e.html.

³⁶ The International Institute for Strategic Studies, *The Military Balance 2006* (London: Oxford University Press, 2006)

³⁷ This figure is based on the assumption that Canada's population in 2011-2012 will be approximately 33 million people. For a more detailed look at other countries, see Appendix V.

Moreover, other countries compare our spending to theirs. Such comparisons send messages as to how committed a country is to advancing its interests internationally. If the Government lacks the tools to make a difference in the world, other nations will have to take up the slack. Those countries will notice, and Canada's international influence will likely continue to decline.

Pegging the Defence Budget – Arguing as the Devil's Advocate

Just for the sake of argument, what if Canada were to peg its defence spending according to a mean or average of the spending of other countries that play a reasonable, middle-power role in world affairs? Again, this would be the Committee's distant second choice – far better to match our dollars to our needs.

However, it might be instructive to compare for anyone who thinks that a \$25 Billion to \$35 Billion defence budget is unreasonable.

A NATO Peg?

In 2005, Canadian defence expenditures amounted to a little more than 1 per cent of GDP. Of the 26 NATO members, that put Canada ahead of only Luxembourg, and Iceland (which has no armed forces) according to the Department of National Defence.³⁸

If Canada were to peg its defence budget at the average amount spent by 26 NATO countries, we would spend approximately 1.7 per cent of GDP. Coincidentally, median NATO defence spending also comes out to about 1.7 per cent of GDP.

A G8 Peg?

The G8, of course, is comprised of seven leading industrial nations, plus Russia.³⁹

The latest average defence budget of G8 members is about \$34.23 Billion Canadian (excluding the United States). The average defence spending per capita of G8 members is about \$460 Canadian (again, excluding the United States). 141

³⁸ Department of National Defence, *Making Sense Out of Dollars 2005-2006 Edition*. Please see Appendix V.

³⁹ G8 members are: Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, the United States and the European Union. Source: Foreign Affairs Canada (http://www.g8.gc.ca/members-en.asp).

⁴⁰ The average defence budget of G8 members including the United States is about \$98.88 Billion Canadian.

⁴¹ The average defence spending per capita of G8 members including the United States is about \$619 Canadian.

A More General Peg?

To save readers the time of turning back to the beginning of this chapter and checking out our Canadian comparison with some other countries that play a reasonably active international role, here is that chart again, calculated in Canadian dollars:

United Kingdom \$903 The Netherlands \$658 Australia \$648 Canada \$343⁴²

Some countries – like France and the United Kingdom – average nearly 2 per cent of GDP – approximately double Canadian expenditures. If Canada were spending 2 per cent of GDP on defence this year, our total investment would come to about \$30 billion – about double the current Canadian defence budget.

All of which is to say that – whether you base military spending on Canada's needs, or base it on comparisons with what other like-minded countries spend – the Committee is being reasonable when it talks about a defence budget of between \$25 billion and \$35 billion by 2011-12.

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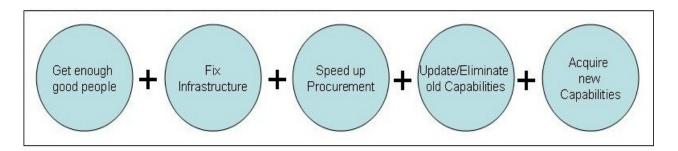
⁴² In the interest of comparability, all four amounts in this list were calculated based on data obtained from The International Institute for Strategic Studies, *The Military Balance 2006* (London: Oxford University Press, 2006).

The Committee recommends that:

- 1. Canadian defence budgets be based on longer-term thinking about the security needs of Canadians, rather than short-term fixes to manpower shortages and equipment rust-out.
- 2. The Government should grow to, and maintain the annual budget of the Department of National Defence at, between \$25 Billion to \$35 Billion by 2011-2012 to increase its capacity to protect Canadians and their interests at home and abroad, and to contribute to international peace and security.
- 3. A minimum of 30 per cent of the defence budget be allocated to capital expenditures every year to ensure that Canadians serving their country have the infrastructure and equipment they need to do their jobs well, with as little threat to their lives as possible.
- 4. The Government should immediately cancel the Expenditure Review Committee commitments affecting the Department of National Defence and ensure that the Department has use of at least the full allocation of the original \$12.8 billion over five years allocated by the previous Government AND the additional \$5.3 billion over the next five years, promised by the current Government.

PART III

Practical Challenges



CHAPTER 1

Getting More Good People

This Committee frequently pays tribute to the ingenuity, toughness and valour of those who serve in the Canadian Forces. We are well aware that the Forces are full of great people.

But having great people is not sufficient to make the Canadian Forces effective. Success depends upon having *enough* great people. The alternative is too often burnout and even the eventual possibility of failure.

Now that the operational pause of the last two years has ended, the Committee does not believe that the current number of Canadian Forces personnel can indefinitely sustain the tempo of operations that they will be asked to undertake.

A similar level of personnel was overtaxed to a near meltdown in 2004 after a decade of over-deployment before the last government finally ordered an operational pause. That pause was needed to treat the obvious symptoms of trying to do too much with too little for years. The Canadian Forces were exhausted.

Prior to the pause, the Forces found themselves straining to continuously deploy 4,000 personnel on overseas operations.⁴³ The Chief of the Defence Staff testified to the Committee that he has no reason to believe there will be fewer demands placed on the Forces in the coming years than occurred in the 1990s.⁴⁴ The Defence Policy Statement concurs.⁴⁵

⁴³ This strain began in the early 1990s when Canada took on extensive commitments in support of the United Nations, especially in the Balkans, as it was decreasing the overall size of the Forces. The tempo remained high for most of the decade and beyond. By 1999-2000, Canada also had significant commitments in Kosovo, East Timor and Eritrea. The Government sent an infantry battalion group to Afghanistan in 2002 and rotated 14 ships through Southwest Asia as part of Op APOLLO. It returned to Afghanistan in 2004 as part of the NATO International Security Assistance Force in Kabul.

⁴⁴ General R. J. Hillier, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 30, 2005), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Com-e/defe-e/22cve.htm?Language=E&Parl=38&Ses=1&comm_id=76.

e/22cve.htm?Language=E&Parl=38&Ses=1&comm_id=76.

45 According to the *Defence Policy Statement*: "The role of the Canadian Forces in protecting Canadians and their interests and values will remain essential in the future. The heavy demands on our military, both domestically and internationally, will not diminish—they may well increase." Government of Canada, *A Role of Pride and Influence in the World – DEFENCE*, 1, available at: http://www.forces.gc.ca/site/reports/dps/pdf/dps_e.pdf.

The Government's Planned Expansion: A Good First Step

Both the last government and the current government—through their respective promises to expand the Forces—have acknowledged that the Forces are undermanned. The new government's plan to increase the Canadian Forces to 75,000 Regular and 30,000 Reserve personnel is certainly a significant step in the right direction. It represents a commitment to expand the Regular Forces by approximately 20% and it is the first growth of this size in at least a generation.

But even 75,000 Regulars will not provide the Canadian Forces with sufficient personnel in the near or long-term to perform the many jobs the Committee believes will be assigned to them by the government. Even after expansion, the Committee believes that there will still be too few people in the Canadian Forces to give the Government the capacity it needs to properly protect Canadians and advance their interests.

What Size Will Protect Canada?

How many more personnel do the armed forces really need? The Committee believes that the Canadian Forces require 90,000 people in uniform, not the 75,000 promised by the government. We invite you to do the math with us.

As the Committee commented in its last report, *Wounded*, the Canadian Forces are operating at a personnel level that is approximately 40-45 per cent below what they require to perform the types of duties they have had to perform over the past decade and are likely to perform in coming decades.⁴⁶

Based on the roles and missions described in the *Defence Policy Statement*, there isn't much question that increased operational demands will be placed on the Canadian Forces in coming years. Take for example the impact of our mission in Afghanistan on the Canadian Forces. It is taxing our military and limiting our ability to perform missions elsewhere. Any decision as to whether to go into Darfur, for instance, should be made on the basis of whether a mission would be useful, whether it would be done under the auspices of the United Nations, and

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⁴⁶ Senate Standing Committee on National Security and Defence, *Wounded* (October 2005), 11. Available at: http://www.sen-sec.ca. (Last visited: June 13, 2006).

other such considerations. It should not have to be ruled out because Canada has quickly run out of capacity after putting 2,300 people in Afghanistan.

The Committee believes that Canada needs enough military capacity to take on at least two operations the size of the one ongoing in Afghanistan at once. We barely have enough to sustain one.

Those demands will have to be met on the back of the massive rebuilding job that will take place over the next decade.

In short: it won't take long for the additional 13,000 new recruits to discover that they should have been an additional 28,000 new recruits. That's what it would take to get warships, combat units and operational air squadrons up to strength, for stressed trades to be built up, for training resources to be restored, and to have enough people at hand to replace those on leave or in training.

The Committee believes that even with the government's planned expansion the Forces will be unable to meet its five key personnel demands:

- 1) Sufficiently staffing stressed trades;
- 2) Filling existing units;
- 3) Reducing personnel tempo;
- 4) Increasing the personnel dedicated to recruiting; and,
- 5) Staffing new capabilities.

Let us look at each in turn.

1) Fill Existing Units

Canadians need to understand that their armed forces – which have shrunk significantly since the 1970s – are even smaller than they look. Typically, only 83 per cent of the Forces' total strength is available for full employment. ⁴⁷ Almost one out of five is unavailable for a variety of reasons. That makes life considerably more difficult for the other four who too often have been required to bear the load.

⁴⁷ Source: Directorate of Military Human Resource Requirements, Department of National Defence

After the downsizing of the 1990s, shrunken units were left with little flexibility. They are authorized staffed to the minimum level, but not always. Some Canadian Forces units frequently have been left without their basic minimum complement of authorized personnel.

Again, an authorized number of people is not the same as an available number of people. Units start with less than a full complement, then have to face the added challenge that a sizable percentage of personnel are consistently unavailable for employment or operational deployments due to illness, injury, training, professional compassionate development, grounds, leave or for other causes.⁴⁸ Since no extra staffing is provided within units to cover off these absences. personnel must often be borrowed or taken from other units when it comes time for operations.

When civilian organizations staff their departments, they usually take into account the fact that some personnel are

The Canadian Forces as a Hockey Team

Many ask why the Canadian Forces, with approximately 62,000 personnel, can only sustain approximately 4,000 personnel on missions at any given time.

Think of the Canadian Forces as a hockey team, and its deployed personnel as those on the ice.

The players on the ice are not the only members of the team. There are other lines waiting on the bench; getting ready for or recovering from their shifts. There are healthy scratches, unhealthy scratches, coaches, trainers, equipment managers, scouts, front office staff, locker room staff, cooks who prepare post-game spreads and farm teams. Only together do they form the organization needed to put a team on the ice.

It is similar in the Canadian Forces. Those on deployment constitute just a fraction of the Forces. They have just relieved those who have returned home and are recuperating, while still other groups are being trained or retained for the next rotation.

Then you have the Chief of the Defence Staff, the Vice Chief of the Defence Staff, the staffs of various commands, the medical staff, those who acquire and maintain equipment, those who organize food and other supplies, those who recruit for new CF members and those who are training new personnel. And so on.

Worth noting: people who fire bullets need far more complex support systems than people who fire pucks.

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⁴⁸ This is normally called "manning priorities." The theory is that some units, like those about to be deployed, will be manned to 100%, while others will only be manned at 85% to start with because of the number of personnel available.

bound to be missing for vacations, sick leave or training from time to time, and they then hire extra people to take that into account. The Committee does not believe that the Canadian Forces have built in enough of that kind of breathing room to recover from the personnel reductions of the 1990s.

Absentees don't generally present the huge problems in civilian life that they do in the military. In the military, when a crisis arises, sufficient trained and qualified people are needed quickly. There are no temp agencies around to get you through.

2) Stressed Trades

The under-manning of Canadian Forces – the holes in units and capabilities – gets even worse when the focus shifts to what are called "stressed trades."

Stressed trades are occupations that are essential to the function of the Forces but are staffed well below authorized strength. These are trades in which personnel are often in short supply in the private sector as well, so extraordinary measures are called for to bring them up to strength.

Specialities that require significant amounts of training and experience, like medicine or mechanical trades, are often stressed. They are in limited supply and in high demand.⁴⁹ The need for specialist personnel on most missions means that those available are often required to deploy more frequently than others. This often causes burnout, compounding the problem and accelerating the departure of key people from the Forces.

Recruiting and training should be geared toward preventing this. The people in stressed trades are often the ones most vital to the success of missions.

In June 2005, the Canadian Forces identified about 100 different full and part-time military trades that required additional personnel. For example, there were shortages in the Armour, Communications, Electronics, Logistics, and Combat occupations.⁵⁰

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⁴⁹ There are various reasons why personnel in a military trade might be in short supply, including: a trade may be temporarily unpopular; the commercial market may pay better; the creation of a new capability or a change in the way an operation is conducted may suddenly place a demand for more people than are readily available.

⁵⁰ According to the Department of National Defence, some of the specialties where the Canadian Forces were experiencing significant shortages in were: armour soldier, combat engineer, communications researcher, fire control systems technicians, infantry soldier, intelligence operators, land communications information systems

The Committee recommends that:

5. The Canadian Forces increase the authorized strength of critical, high-demand trades to ensure an operationally sufficient supply of personnel in those trades, so that deploying operational units are never undermined by a lack of specially trained personnel to do critical technical tasks; and that the Canadian Forces recruiting and training system be specifically geared to sustain those levels.

3) Reducing Personnel Tempo⁵¹

The Committee has been commenting on the excessive burden being placed on military personnel since its first reports in 2002. Notwithstanding what the Committee said in *For an Extra \$130 Bucks: An Update On Canada's Military Financial Crisis*, Personnel Tempo is still one of the chief issues raised with the Committee in its travels across the country. Personnel tempo is a measure of the frequency and duration of time spent away from home on missions or professional development.

Because of the shortage of people in the Canadian Forces – particularly in the Army – personnel continue to be required to spend considerable periods of time away from their place of residence.

These taskings have hit hardest at the Master Corporal, Sergeant, Warrant Officer and Captain Ranks – the very ranks that provide leadership within field units.

This practice tends to have an undue impact upon the best NCOs and officers, because the best people are naturally chosen to train others. That means the best personnel are often the ones whose family lives suffer the most, resulting in extra pressure on the best people to leave the military. The requirement to take on these additional tasks reduces the quality of life for Canadian Forces personnel and also leads to burnout.

technicians, line technicians, medical technicians, mobile support equipment operators, naval combat information operator, naval electronics technician (acoustic), naval electronics technician (tactical), and signals operators.

Fersonnel tempo is defined as the frequency and quantity of time spent on military duties, either on missions or professional development, away from home.

The Committee notes a recent development that could help monitor and map the scale of the personnel tempo challenge. Units are now required to electronically record "Time Away," defined as any period of 24 hours or more that a soldier, sailor, airman or airwoman is not at their normal place of residence for reasons other than leave.⁵² These records will permit a measure of the quality of work life and will help act as a warning to supervisors and Commanding Officers that burnout or other related problems may be looming.

The Committee believes this is a positive step and will monitor to see whether it has a positive impact on the personnel tempo of Canadian Forces personnel.

4) Better Recruiting and Training

The cuts of the 1990s gutted the Canadian Forces recruiting and training systems, and they need to be rebuilt.

The Committee believes that to increase the size of the Forces to the level that the Committee has recommended and to expand the Canadian Forces' professional development capabilities, the recruiting and training capacity must also be greatly expanded.

At the direction of Chief of the Defence Staff General Rick Hillier, who has made recruiting a top priority, the Forces have undertaken what he calls OP CONNECTION. General Hillier wants to make recruiting an inclusive process:

"Recruiting is everybody's business', and I intend to revitalize our recruiting culture. I expect the complete Chain of Command to be engaged in an aggressive and comprehensive recruitment strategy. I expect every sailor, soldier, airman and airwoman to recognize their role as a potential CF recruiter, effectively spreading the load from the shoulders of recruiting centre personnel to the shoulders of all Regular and Reserve personnel. I see this as a shared responsibility and duty and I consider it essential in order to connect in a meaningful way with greater numbers of Canadians." ⁵³

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⁵² Department of National Defence, information provided to researcher, May 2006.

⁵³ Department of National Defence, CDS OP O 015/06 OP CONNECTION (February 2006), 2.

Good start. But in addition to revitalizing the recruiting culture of the Forces, their basic recruiting and training structures are going to need a lot more personnel if the Forces are going to increase their numbers.

5) New Capabilities Mean More People Too

The Canadian Forces will also require additional units to fulfill a variety of roles that go with the new capacity this Government promised during the election campaign and additional capacity called for by the Committee (either later in this report or in its next report). Some of these include:

- a. An additional naval Standing Contingency Task Force (to create a total of two, one on the east coast and one on the west coast);
- b. A robust and flexible strategic sea lift capability, able to both transport and support deployments of Canadian Forces personnel overseas;
- c. Strategic airlift capability;
- d. A new elite combined arms unit with airborne capabilities dedicated to act as a national strategic reserve force and as support for Joint Task Force Two;
- e. Uninhabited Aerial Vehicles;
- f. The raising of professional education requirements and the creation of training establishments that would help personnel to meet them; and,
- g. A stronger presence in the Arctic.

Bottom Line

It is the Committee's assessment that:

1. The operational demands on the Canadian Forces will be at least as onerous, if not more so, than it was before the 2004 pause in operations.

- 2. The problem of stressed trades must be addressed by increasing authorized manning levels in affected occupations.
- 3. The Canadian government has a duty of care to Canadian Forces personnel to ensure that the brutal personnel tempo that many were subjected to before the operational pause does not recur.
- 4. The recruiting, training and professional development capacities of the Canadian Forces must all be expanded.

Where the New People Will be Needed:

How additional personnel would contribute to the Canadian Forces	
Current trained and effective strength	Personnel 52,330 ⁵⁴
 Fill existing units Expand units and military occupations to create sustainable and regular levels of operational and personnel tempo Establish an adequate level of personnel in critically stressed military occupations Staff the new Canada Command, Canadian Expeditionary Forces Command, Special Operations Command, Canadian Operational Support Command and Strategic Joint Staff in headquarters 	+ 10,000 (approx)
 Expand recruiting and training establishments Increase capacity of recruiting and training systems to accommodate proposed growth of the Canadian Forces by 2011-2012 Minimize the time personnel are required to wait for training Accelerate the recruiting process Remove the need to augment personnel instructing at training schools during peak months 	+ 3,000 (approx)
Expand to properly staff new capabilities The creation of an additional high readiness Naval Task Force, strategic sealift, strategic airlift, special operations enablers, Unmanned Aerial Vehicles and an elite combined arms unit is a partial list of the new capabilities which will require additional personnel.	+ 10,000 (approx)
TOTAL required trained and effective strength	75,000 (approx)

⁵⁴ See Appendix VI.

Why 75,000 Trained and Effective Personnel Means 90,000 Total

To maintain a level of 75,000 trained effective personnel, the Canadian Forces will require 90,000 authorized military personnel.

The Canadian Forces currently have approximately 64,000 authorized personnel, of whom approximately 54,000 are trained and effective at any given time.⁵⁵ The existence of a gap between these two numbers is normal and inevitable.

As noted earlier, there are fewer available for employment than authorized because personnel go on training courses, annual leave, injury leave, sick leave, and parental leave.

To sustain a level of 75,000 trained and effective, it is necessary to maintain a population in the Canadian Forces that is 15-20% larger than that.

The Committee recommends that:

6. The Canadian Forces should maintain regular strength of 90,000 personnel. This is the minimum needed to keep 75,000 trained and effective personnel – the number required to sustain the domestic and overseas tempo Canada may be required to protect its citizens and advance their interests.

The Need to Grow More Quickly

The Committee believes that the personnel shortage in the Canadian Forces must be addressed as quickly as possible to reduce the burden on those already in the Forces and to ensure that the Forces can sustain the capacity that the Government requires to protect Canadians and their interests into the future.

The timeline for expanding the Canadian Forces to 75,000 personnel has not been publicly set. Minister of National Defence Gordon O'Connor's testimony to the

⁵⁵ Source: Department of National Defence, DMHRR2-3, "CANADIAN FORCES Pers Stats," (September 01, 2005). As of 1 September 2005, the authorized Regular Force strength of the Canadian Forces was 62,181 personnel. The number of trained and effective personnel or available for employment was 51,704.

Committee on May 8, 2006, suggests that the expansion will occur over the next five years.⁵⁶

Accelerating Growth

The Canadian Forces are being expanded according to a schedule tailored to the number of dollars currently allocated by the Government. This expansion is based on the resources that are available.

The Committee is convinced that the Forces could expand faster if more dollars were forthcoming sooner. It is also convinced that the Forces *should* be expanding more quickly.

It is the Committee's view that the Government should try to hit not just their target of 75,000 personnel but our target of 90,000 personnel within six years (as depicted in Figure 4). This would require the intake and training of 2,000-6,000 new recruits each year between now and 2011-2012, over and above its regular recruiting requirements.

⁵⁶ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca. Mr. O'Connor said: "My estimate at the moment, subject to what happens in the future, is that we will probably be able to expand it two times or two and half times what the Liberal plan was." The plan of the previous government was to complete its planned expansion of 5,000 Regular Force personnel in 5 years. If the current government's planned expansion of 13,000 Regular Forces personnel is going to occur two or two and a half times faster than the Liberal plan, it would suggest that the current planned expansion should also be finished in 5 years.

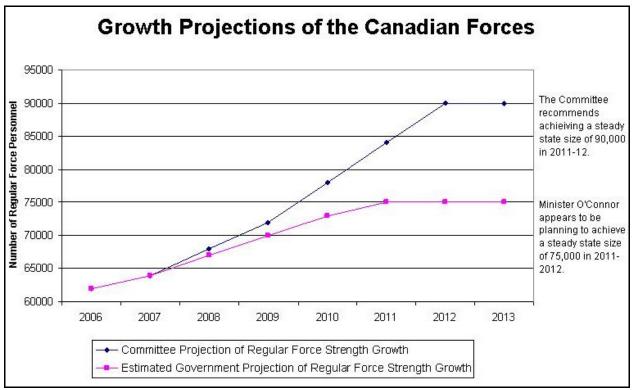


Figure 4 – The Committee believes that the Government should provide the resources necessary to expand the Canadian Forces to 90,000 Regular Force personnel by 2011-2012.

The Committee readily admits that expanding the Forces to 75,000 personnel (or to 90,000 personnel as the Committee recommends) will pose a challenge. It means attracting, recruiting and training at least 13,000 new personnel incremental to those needed each year to maintain current levels. This will tax the Canadian Forces.

Over and above proposed growth, the Canadian Forces are also fighting demographics. During the next few years an increasing percentage of military and civilian personnel will be approaching retirement age. This means that the Forces will be required to recruit and train more personnel just to maintain current personnel levels.

Their departure will be compounded by the lack of a steady stream of experienced replacements coming along behind them. When the Canadian Forces recruiting slowed to a trickle in the 1990s an age-experience gap was created that has produced a shortage of mid-level personnel. If more experienced military personnel who are eligible for retirement decide to leave, the experience level of those replacing them will obviously be lower.

During the 1990s, the Forces were forced to limit the Forces' recruitment efforts as part of a government-wide deficit-fighting campaign. This recruiting interruption is coming home to roost. It has created an unnatural vacuum moving through the Canadian Forces Human Resources system which impacts on almost every facet of the Forces. It is important that the Canadian Forces are never again forced to risk their future – and the safety and security of Canadians – for the sake of short-term and short-sighted cost savings.

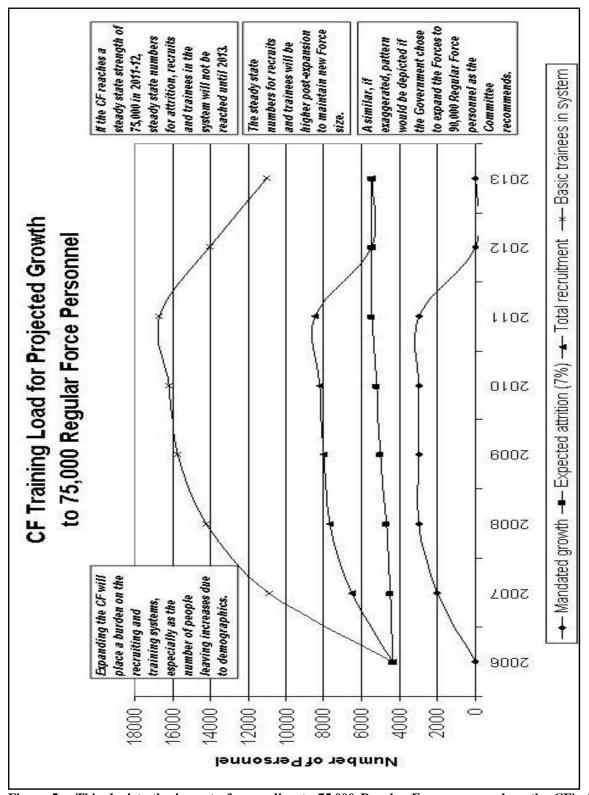


Figure 5 – This depicts the impact of expanding to 75,000 Regular Force personnel on the CF's training infrastructure.

Pausing to grow

Minister of National Defence Gordon O'Connor testified that he understands the challenge he is facing. According to Mr. O'Connor, "Personnel is the greatest challenge that I am facing in looking ... to the future." He went on to say that he believed that expansion will limit the Forces capacity to take on overseas roles.

Mr. O'Connor: Subject to cabinet approval, because I have not briefed them yet, but we anticipate that as long as we are expanding the Armed Forces, we will not be able to maintain two heavy lines of commitment from the army. We have to devote a large part of the army, air force and navy to generating themselves so that three to five years from now we have a robust army and revitalized air force. However, it takes effort to do that. We have to be careful with how much effort we put into offshore operations.

The Chairman: So Afghanistan is going to be the main effort?

Mr. O'Connor: We can maintain Afghanistan, as is, into the future basically forever, but we would be greatly challenged for a substantial commitment elsewhere in the world.⁵⁸

The Committee concurs with the Minister. If planned growth is to proceed, and is to succeed as quickly as possible, the military needs time as well as money to revitalize itself. It needs a respite to recruit, to train, and to re-equip itself.

This needs to be clear. Expansion will limit the capacity of the Canadian Forces to conduct missions overseas beyond the current commitment to Afghanistan for at least the next five years with two exceptions.

The Defence Policy Statement states that the Canadian Forces ought to be able to maintain four ships (with embarked maritime helicopters) and an Air Expeditionary Unit (consisting of one Airbus, and six CF-18 aircraft) overseas indefinitely concurrent to a largely Army mission the size of the one ongoing in

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⁵⁷ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca.

⁵⁸ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca.

Afghanistan. The Committee doubts the capacity of the Canadian Forces to do so at this time.

The Committee recommends that:

7. The Government publicly commit to a moratorium on additional deployments of the Canadian Army until it has reached a steady state of personnel, likely around 2011-2012.

Fixing Recruiting

Given the urgency of significantly expanding the Forces, and given the demographics that are likely to cause higher-than-normal attrition in the Forces in the next few years, there is a need to revolutionize recruiting mechanisms and associated systems.

Recruiting Must be a Top Priority

In our last report, *Wounded*, the Committee concluded that the Canadian Forces recruiting system was broken. Everyone up to the Chief of the Defence Staff acknowledged that.⁵⁹ The system appeared to be incapable of even coping with the normal replacement flow of personnel, let alone bringing enough people on board to expand the Forces considerably.

The Committee reported that the Canadian Forces recruiting organization had reached only 76 per cent of its quota of recruits for the first eight months of 2005. Given that slow start, the Committee was pleased that the Canadian Forces then went on to meet their limited intake objectives last year. This was due to a higher number of applications than normal starting in October 2005. 61

⁵⁹ General R. J. Hillier, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 30, 2005), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Com-e/defe-e/22cve.htm?Language=E&Parl=38&Ses=1&comm_id=76.

⁶⁰ Department of National Defence email to researcher in response to a Request for Information, 13 September, 2005

⁶¹ Department of National Defence, email to researcher in response to a Request for Information, 7 April 2006. The reason for the increased applications is unknown.

Nevertheless, it remains obvious that the Forces do not have a system in place that can manage the expansion of the Forces to 75,000 or 90,000 personnel. Quite simply, they have not been funded to do so.

Of the several steps the Forces must take to produce enough capable military personnel, these are the first five:

- Attract
- Screen
- Enrol
- Train to be a member of the Canadian Forces
- Train to specialize in a particular trade as a member of the Forces

In Report 1 we demonstrated that the Canadian Forces recruiting process is riddled with problems:

- 1. In the attraction phase, recruitment advertising was being undermined by newly imposed bureaucratic rules requiring centralized approval for advertising contracts.⁶²
- 2. In the screening phase, long delays often discouraged potential recruits from signing on.
- 3. There are insufficient resources allotted to screening and enrolment.

The Department of National Defence needs to revamp its recruiting and training procedures, but it won't be able to do that unless they are adequately funded.

OP CONNECTION⁶³ is a good start but the Canadian Forces need to put more premium personnel into recruiting to get anywhere near the 90,000 personnel needed to protect this country's citizens.

⁶² Those restrictions have been lifted.

⁶³ Op Connection is a new effort to reform recruiting started by the Chief of the Defence Staff in January 2006. Capt Holly-Anne Brown, "Op CONNECTION: Reaching out and touching Canadians," *The Maple Leaf* (22 February 2006, Vol. 9, No. 8), available at:

http://www.forces.gc.ca/site/Community/mapleleaf/index e.asp?newsID=2356&id=4703&cat=5&volID=1&issID=23&newsType=1. Last visited: June 10, 2006. "The intent behind Op CONNECTION pushes the individual environmental commands to redirect their awareness and recruiting efforts from their own specific environments and to refocus on promoting the CF as a whole."

Streamline the Process

In our last report, *Wounded*, the Committee concluded that the processing time required to get into the Forces or transfer between the Reserves and the Regulars is too long. Processing delays frustrate interested young men and women, driving potentially good candidates away from the Forces.

The Committee was told that "perfect" candidates for entry into the military can be admitted in about a month. Unfortunately, only about three per cent of applicants fall into this category. Those requiring more stringent assessments can take much longer. It sometimes takes up to a year for a member of the Canadian Forces to transfer from the Regulars to the Reserves, or vice versa.

Today's Canadian Forces recruiting process is a complex transaction between the applicant and the institution that involves an array of rules and regulations. Delays are most often caused by snags in security and medical clearances, as well as the lack of an opening in an applicant's desired military trade and/or a lack of available training slots for recruits going into that trade.

The time between signing an enrolment form to the start of basic training needs to be shortened and the process needs to be redesigned so that it can respond quickly to unexpected requirements for new personnel.

One way of reducing this time would be to ensure that all recruiting processes are electronic and transferable between Canadian Forces' components. The Committee is pleased to note that since the summer of 2005, people applying to the Canadian Forces have been able to submit applications online.

The Forces must also reduce the amount of paperwork required to become a member of the Canadian Forces, particularly for potential recruits born outside the country. Some countries cannot or will not provide background checks. Other means must be found to assure the Forces that they are enlisting the right people. The Canadian Forces need to better reflect the changing face of Canada.

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⁶⁴ Vice-Admiral Greg Jarvis, "Testimony," *Proceedings of the Senate Standing Committee on National Security and Defence* (February 21, 2005), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Com-e/defee/42224-e.htm?Language=E&Parl=38&Ses=1&comm_id=76. The three per cent statistic was provided to the Committee by the Department of National Defence.

Move Outside the Box

The success of Canada's military over the next few decades is going to depend on whether the Canadian Forces proves capable of breaking out of the box and creating a much more innovative and dynamic approach to recruiting.

First and foremost, recruiting has long been perceived as a dead-end career opportunity. Given the challenge of expanding the Forces, that can not continue. Recruiting needs good people – people wishing to make their mark and advance their careers. That means the Forces are going to have to value and promote the recruiting process for what it is: a key component of defence capacity and military capability – perhaps the most important of all.

Getting many more of the right people into recruiting will be essential to the rejuvenation of the Canadian Forces. All military leaders of all ranks must take an interest in attracting and recruiting the best Canadian society has to offer. That will not be possible unless recruiting is treated with the respect and attention it deserves.

The art of recruiting must be seen as a key skill, to be pursued by able and ambitious military personnel taking an important step in a successful military career. Recent indications are that senior Canadian Forces leadership understands this. According to a March 2006 Canadian Forces General Message, or CANFORGEN:

"The CDS places tremendous importance on recruiting and strongly supports the emphasis being placed on selecting the best people to be recruiters and to reward them for this valuable service... Managing authorities are directed to identify recruiting positions on par with operational positions of equal rank and assign points accordingly in the scoring criteria ... This will ensure that a tour in recruiting is at least as conducive towards promotion as an operational, command, or leadership tour in the same rank."

This directive is a step in right direction. The Committee will monitor its implementation in the coming months.

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⁶⁵ Department of National Defence, CANFORGEN 052 / 06 DGMC 008 270945Z MAR 06 (March 2006).

More Can Be Done

The Committee is convinced that there are ways of going about expanding the Forces that are just waiting to be embraced.

As we mentioned in Part II, the Forces should expand its incentive program to persuade qualified personnel not to leave the Forces.

But more creatively, here is one idea: enhance the roles of the Army's Skyhawks Parachute Demonstration Team and the Air Force's Snowbirds Aerial Demonstration Team. They put on great shows. The Navy should be instructed to create a similar showpiece. Canadians who come out to these kinds of performances like to *see* what their Army, Navy and Air Force do at their best. Some of them might also like to *do* what their Army, Navy and Air Force do at their best. These events are the ideal place to encourage young people to consider a military career.

The RCMP's Musical Ride has had great success in combining horsemanship exhibitions with exhibitions that feature such skills as emergency response teams and handling dog teams. These kinds of exhibitions make young people want to be Mounties. More of an effort should be made at Armed Forces demonstration events to make the connection between adventure, intellectual stimulation, the acquisition of skills and military life.

Here's another: expand existing university tuition incentives schemes into a large-scale program similar to the Canadian Officer Training Corps (COTC), which was cancelled in the 1960s. COTC was located on university campuses across Canada. It attracted students seeking a commission in the Militia. With ever-increasing university costs, the Committee believes that a program that offers to fund a student's full tuition in exchange for service would attract many more candidates for the Canadian Forces.

There are encouraging signs that the Canadian Forces is innovating with respect to recruitment. For example, a directive the Army, Navy and Air Force to support OP CONNECTION demonstrates a new respect for the recruiting process and those involved in it:

"The principle for effective CF awareness and recruiting at community events is the same one perfected by countless museums,

theme parks and tourist attractions. It is marketing, not coincidence, which guarantees that everyone who views the display of dinosaur skeletons at the museum will have to pass through the gift shop en route to the exit. The sales manager knows that these gifts can be irresistible to those whose interest in dinosaurs has just been piqued. A recruiting display similarly situated at the exit brow of a ship open to visitors, or at the exit point of a Kandahar-themed army display, can also be very effective in establishing contact with those whose interest in the CF has just been stimulated."⁶⁶

The Canadian Forces can offer wonderful opportunities to young Canadians. They should be packaging those opportunities in a way that ensures that young people are paying attention.

Showing Off at Home

The Forces should also consider borrowing a recruiting technique from our military's past: encourage recent recruits to encourage others to join. There is magnetism to a newly-trained recruit, who goes away from home as one person and returns as something different – someone more confident, someone with a mission in life. Family and friends see a difference. Some of them might like to join up too.

It used to be the practice to send soldiers who had just completed their recruit training home in uniform for a brief period of leave, prior to joining their first unit. It was not uncommon for them to return having influenced someone else to join. It wouldn't take long to re-introduce this practice, and it wouldn't take long to monitor the results to see whether there is enough of a payoff to make it a regular practice.

Attempts should also be made to create connections between military personnel returning from theatres of operations and their local communities. The Canadian public needs to identify far more closely with the Canadian military. Joining the military should not seem like going to a strange place.

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⁶⁶ Source: Department of National Defence, CDS OP Connection Guidance, Annex A.

The Committee recommends that:

- 8. The Canadian Forces should build a recruiting and training system that can recruit and train the personnel necessary to maintain a steady state level of 90,000 personnel.
- 9. All recruiting processes should be streamlined so that every transaction is electronic and transferable between Canadian Forces' components.
- 10. The Canadian Forces expand incentive programs to ensure that qualified personnel do not leave the Canadian Forces.
- 11. The Canadian Forces be allocated the resources to allow them to create a Navy demonstration team to co-ordinate recruiting activities with ship visits to Canadian cities and complement the Snowbird and Skyhawks.
- 12. Once new recruits are trained, the Canadian Forces should utilize them to attract other new recruits by allowing them to go home for short periods of special leave to encourage others with similar potential to join the Forces.
- 13. The Canadian Forces should shorten the recruitment process for both the Regular Forces to a maximum of one-month between enrolment and the commencement of basic training.

CHAPTER 2

Acquiring More and Better Equipment

Decades of under-funding has restricted the flexibility of Canadian military commanders. It has forced them into convoluted but creative solutions to get things done – to make do with what they have or what they can beg, steal or borrow. This has led at times to the kind of scavenging that wouldn't be tolerated in any respectable private sector firm – or in any government department.

One cannot help but commend the Army for the ingenuity of its Whole Fleet Management program, the Air Force for cannibalizing hangar-relegated aircraft and the Navy for periodically engaging in the process of TRANREQ-ing.⁶⁷ These programs attempt to keep the Forces moving by constantly juggling resources.

But juggling equipment often involves investments of time and energy that could be better used elsewhere. It also reduces the readiness of too many ships, aircraft and other equipment at any given time because their parts have been plundered for use elsewhere. Our armed forces need to acquire enough equipment and spare parts to be fully operational in a hurry. That is the only way the Government is going to have the flexibility it needs in times of crisis.

Part IV will present a list of major equipment essential to the operational success of the Canadian Forces, and vital to the interests of all Canadians. It is, admittedly, a daunting list. But it is not a list to pick and choose from. It is time for the Government to acknowledge that every component on this list is essential. It is also time to lay out the cost of each one, and get on with their acquisition on a realistic schedule.

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⁶⁷ The Army's 'whole fleet management' program pools major equipment supplies (such as combat vehicles). Units receive only the equipment they require at the time they require it, for the level of training they are conducting. No longer will Army units have a full complement of major equipment all the time. TRANREQ stands for Transfer Request, where a ship removes equipment from another ship so it is adequately equipped to deploy. The process of sharing parts from ship to ship not only leaves some ships under-equipped, it wastes time in removing, and then reinstalling, and then removing, and then... A Transfer Request occurs where a part or other piece of equipment cannot be supplied in time by conventional means. The ship requests that Command authorize a TRANREQ and Command, if approval is given, designates a ship of lower readiness to donate the item which will be replaced in due course.

The Government's No. 1 Job

The capital account – which includes spending on lands, buildings and equipment – is where the biggest budgetary increases are required. Many Canadian Forces platforms are deficient, or obsolescent, or both.

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CHAPTER 3

Rationalizing Infrastructure

In Chapter 2, the Committee recommended dedicating 30 per cent of the Canadian Forces annual budget for capital expenditures on infrastructure and equipment. This was in large part due to the sorry state of much of the Canadian Forces' infrastructure.

No institution can thrive within deteriorating infrastructure. Canadians need good people with effective equipment to defend them. But good people aren't going to be attracted to the military or want to stay in the military if facilities are crumbling around them. Nor can effective equipment be properly maintained if the appropriate structures aren't in place to house them and allow for their maintenance.

The Department of National Defence controls 34,724 realty assets, including 818 properties, 12,639 works (roads, water lines, electrical grids, etc.), and 21,267 buildings (residential, barracks, storage, offices, etc.). Almost half of them are fifty years old.

⁶⁸ Source: Department of National Defence, information provided to researcher, February 2006.

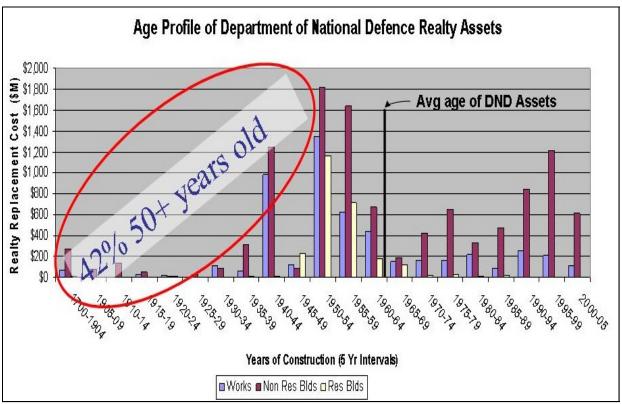


Figure 6 - The average age of buildings and works controlled by the Department of National Defence. Source: Department of National Defence.

Like a Beat-Up Car

The Department faces an ever growing challenge to maintain these properties to adequate government standards because it lacks the money to do. This creates a backlog of essential maintenance.

Why is the mounting infrastructure backlog such an anchor around the Canadian military's neck? Why is catching up on infrastructure spending so important? Karen Ellis, the Department's Assistant Deputy Minister for Infrastructure and Environment, described the situation in simple terms:

"It is important because it is similar to a car. If you put money into preventive maintenance and take care of your car throughout its life cycle, you will save money and keep the car in working order for a longer period of time. If you do not do that, you get into breakdowns and more complex problems, all of which results in you paying much more later to replace parts or ultimately to replace the vehicle."⁶⁹

The Department has not had sufficient money to do all the preventative maintenance prescribed by Treasury Board for years.

The right amount to spend – according to Treasury Board guidelines – to keep the car on the road is 2 per cent of a piece of infrastructure's Realty Replacement Value for maintenance and repair, and another 2 per cent of its Realty Replacement Cost for its eventual recapitalization.⁷⁰

The Department is not coming close. In Fiscal Year 2005-2006, according to Ms. Ellis, the Department "forecasts an average investment of 1.8 per cent for recapitalization, but only 1 per cent for maintenance and repair."

A shortfall of about 1 per cent might not sound like much until you consider the number and value of the assets the Department of National Defence must maintain.

The Department controls 34,724 realty assets which have a total realty replacement value of \$21.3 billion this year. Maintaining the Department's infrastructure to the Treasury

Over \$200 million in uncompleted maintenance and repair every year.

Board standards would cost approximately \$852 million annually. A one per cent shortfall of \$21.3 billion amounts to more than \$200 million in uncompleted maintenance and repair every year.

The bill for under-investment between 2000-2004 alone is \$939 million (see figure below).

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⁶⁹ Assistant Deputy Minister (Infrastructure and Environment) Karen Ellis, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (June 6, 2005), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Com-e/defe-e/23eva-e.htm?Language=E&Parl=38&Ses=1&comm_id=76.

⁷⁰ Realty replacement value or cost is the estimated amount it would cost to replace a piece of land or infrastructure.

⁷¹ Assistant Deputy Minister (Infrastructure and Environment) Karen Ellis, "Testimony."

⁷² Source: Department of National Defence, information provided to researcher, May 2006. This figure reflects the 2006 value of Realty Replacement Cost. Last year, the Department's Realty Replacement Cost was \$19.11 Billion according to Department on National Defence, *Report on Plans and Priorities 2005-2006*. Available at: http://www.vcds.forces.ca/dgsp/pubs/rep-pub/ddm/rpp/rpp e.asp.

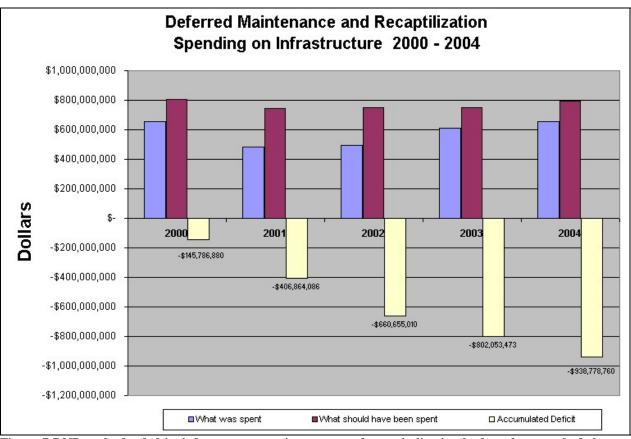


Figure 7 DND underfunded its infrastructure maintenance and recapitalization budgets by a total of almost \$939 million between 2000 and 2004 alone. Data from 2004 represents the most recently available year. Source: Department of National Defence.

Today's Canadian Forces not only have to deal with the ongoing challenge of maintenance, they also have to address a backlog created by years of neglect. The Government must fund the Department of National Defence to the level necessary to maintain those assets the Canadian Forces militarily require to fulfill the roles the government is asking them to play.

Rationalizing Infrastructure

Not all infrastructure needs to be repaired. Some could be eliminated. The Canadian Forces are being forced to maintain too facilities in too many locations across the country.

Minister of National Defence Gordon O'Connor agrees. As Mr. O'Connor said, "We have too much infrastructure. We have too many buildings, too many everything. However, until I see a detailed plan on where the too many is against

what our policy is and what our intentions are, we cannot start making adjustments. Down the line, there will be adjustments to infrastructure."⁷³

The maintenance of superfluous bases may be due to bureaucratic inertia or political pressure to retain them. Either way, hanging onto infrastructure undermines an already over-stretched institution's ability to perform its core function—protecting Canadians. It also wastes taxpayer dollars. The Committee will address the Canadian Forces infrastructure footprint further in its next report.

Infrastructure in Canadian Cities

While the Committee wants to reduce the overall national infrastructure footprint of the Canadian Forces, it also supports the Government's goal of bolstering the Canadian Forces presence in cities.

In Wounded, the Committee concluded that Reserve infrastructure, and in particular Reserve infrastructure in big cities, is in decline. There are too many

NATIONAL RESERVE INFRASTRUCTURE CONSTRUCTION GOALS

- Revitalized Reserve infrastructure nation-wide
- Creation of multi-use facilities of benefit both to Canadian Forces and to local organizations like Police and Fire Departments

aging, inefficient armouries that continue to house Reserve units across the country. Many of these grand old armouries probably deserve to be designated as heritage sites.

Brigadier General Young explained the problem in his region, Ontario, where the Forces have infrastructure problems similar to those across the country:

"Much of the infrastructure to support the Reserves in Land Forces Central Area was constructed in the early 1900s, when the army was still riding horses and drill was an important part of battle tactics.

Armouries built in the 1950s and 1960s used the same basic design as the old armouries, but employed the construction standards of the day.

⁷³ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca.

Most of our armouries are inefficient from both an operating and training perspective.

The cost to bring these armouries to required standards for such things as barrier-free access and cabling systems to handle modern computer systems is extremely high."⁷⁴

The Committee believes that the government could achieve its objective of reestablishing a Canadian Forces presence in major urban centres by instituting a national program of Reserve infrastructure rationalization and construction to build modern, efficient accommodation for contemporary Reserve units.

The aim of the construction program should be to create new facilities designed in conjunction with local stakeholders. These facilities would ideally be multi-use community assets that would improve the training and readiness of the Canadian Forces Reserves, and that of local organizations like Police and Fire departments.

These joint-use facilities should be keystones in the Government's Canada First defence plan, helping the Canadian Forces shift its focus to protection of Canadians at home, linking the efforts of Canada Command to individual communities and fostering a cooperative environment with local first responders. An additional benefit of co-locating some national and local facilities could foster much better teamwork in the event of a crisis.

⁷⁴ Brigadier-General Greg A. Young, "Testimony," Proceedings of the Standing Senate Committee on National Security and Defence (December 2, 2004), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Come/defe-e/06evbe.htm?Language=E&Parl=38&Ses=1&comm id=76.

The Committee recommends that:

14. The Department of National Defence should be allocated enough funds to invest at least 4 per cent of Realty Replacement Cost annually – the amount recommended by Treasury Board guidelines – toward the maintenance and replacement of its infrastructure to address outstanding deficiencies caused by years of underfunding.

15. The Department of National Defence:

- a. Consolidate its aging armouries;
- b. Initiate a National Reserves Construction and Rationalization Program that will build or lease modern accommodation for Reserve units, with particular attention to creating shared-use facilities with local or provincial agencies where possible.

CHAPTER 4

Fix The Procurement Process

Many more people and a lot more money are clearly going to be needed if the Government is going to implement the recommendations that the Committee is making in this report. Then again, it should also be recognized that many more people and a lot more money are going to be needed if the current Government going to implement the previous government's Defence Policy Statement as well as its own election commitments. (The Minister of National Defence has stated clearly that the new Government's commitments comprise the old Government's commitments plus his Government's additional over and above those earlier commitments.)

More people and money will not translate into better security for Canadians if the acquisition process cannot be fixed. Unless it is reformed, the young men and women serving in the Canadian Forces are too often going to come up short of equipment they need to do their jobs, perhaps at their peril.

It appears that the current government, the Department of National Defence, and the Minister of National Defence are all committed to streamlining the capital procurement process.

In his testimony to the Committee on May 8, 2006, Mr. O'Connor outlined a number of ideas for reforming procurement including minimizing Canadianization and avoiding equipment that is not mature in its design wherever possible.⁷⁵ The Committee supports him on these issues and believes that more can be done.

A History of Molasses

The key problem – which the Committee identified in Report 1 – is that the procurement process takes too long to translate a military need into equipment that is combat-ready in the hands of its operators. The approval and procurement process affects all capital equipment projects (for a description of the process

⁷⁵ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca.

please see Appendix VIII). The Committee focused most of its attention on Major Crown Projects (projects costing \$100 million or more).⁷⁶

On average, it takes more than 15 years to acquire equipment in Major Crown Projects. During that time, the Canadian Forces are left to make do with what they have. Many pieces of equipment are obsolete – or at least are becoming so – over 15 or 20 years. That means that the Canadian taxpayer may only be getting a few years of optimal use out of a piece of equipment that should be delivering a lifetime's worth of use. That inevitably reduces their ability to serve Canadians, either in terms of how much they can do (capacity), or what they can do (capability). Slow procurement is not only dangerous, it is extremely wasteful.

Consider the long, tortuous and continuing process to replace the antiquated Sea King helicopters. Designed with 1950s technology and acquired around 1963, the Sea Kings should have been replaced years ago. Not only have they become obsolescent, they require far too many hours of maintenance for every hour they spend in the air.

The decision to replace them should have been based on need plus intelligent analysis of the options available to replace them. Instead it became a political football over costs. Meanwhile the capabilities of both the Canadian Air Force and the Canadian Navy have been diminished for far too long. By the time the Air Force's new fleet of Maritime Helicopters becomes operational around the end of the decade, Canadians will have been waiting almost a quarter century for these new aircraft.

We do not believe that there is one Canadian who would disagree with the Committee's conviction that:

An average fifteen-year waiting time for major equipment to be used in the defence of the nation and its citizens – often in life-and-death situations for people on the front lines – is both ludicrous and unconscionable.

Canadians can't wait fifteen years for new equipment because of:

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⁷⁶ Major Crown Projects (MCP) are those defined by the government as those projects whose cost estimates that exceed \$100 million and that the Treasury Board would assess as high risk. The Treasury Board may also direct that certain projects, with a total cost of less than \$100 million but considered to be high risk, be designated as a MCP. There can be projects exceeding \$100 million, but that have not been assessed as high risk or designated as a MCP.

- The poor state and rapid-aging of the Canadian Forces' current equipment;
- The increased frequency of natural and man-made threats to Canada;
- The duty of care we have to the people serving on the front lines; and,
- The Government's stated goal of increasing Canada's place of pride and influence in the world.

The current process – known as the Defence Planning and Management process and introduced in 2002 – is the fourth attempt to rationalize defence procurement planning since the Second World War.⁷⁷

The 2003 Minister of National Defence's Advisory Committee on Administrative Efficiency is but one of a number of studies critical of the procurement process.⁷⁸

Senior defence officials have been unusually blunt in conceding that Canada's procurement cycle is far too slow. The Department of National Defence's Assistant Deputy Minister for Materiel, Alan Williams, told the Committee in 2005 that the Department's goal is to reduce the average procurement time by about a third, to 11 years. But the Department's goal is to reduce the average procurement time by about a third, to 11 years.

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⁷⁷ Defence Minister Brooke Claxton introduced the first in 1946. The second was a product of Defence Minister Paul Hellyer's restructuring of the Canadian Forces in the mid-1960s. A third model was designed to implement the aims of the deficit-fighting Management Command and Control and Re-engineering activity after the *1994 White Paper on Defence*. The current Defence Planning and Management (DPM) process can be found on the Department of National Defence's web site.

⁷⁸ Two others that deserve mention and attention are: House of Commons Standing Committee on National Defence and Veterans Affairs, *Procurement Study* (June 14, 2000), and Douglas Bland (ed), *Transforming National Defence Administration – Claxton Papers* 6 (Kingston: Queen's University, 2005).

⁷⁹ Major General Dempster outlined his view of the DND procurement process and offered some ideas of how it could be improved during his April 11, 2005, testimony to the Committee. Major General Doug Dempster, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (April 11, 2005), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Com-e/defe-e/19evb-e.htm?Language=E&Parl=38&Ses=1&comm_id=76.

⁸⁰ Dan Ross, Alan Williams' successor as DND Assistant Deputy Minister for Material has publicly stated that the current goal of his organization is to reduce the total acquisition process to nine years and three months. Source: Dan Ross, "Materiel and Transformation," A Presentation at the PMI-OVOC / DND Project Management Symposium," Ottawa, Ontario, November 29, 2005.

Political Will: A Quick and Effective Catalyst

Although most large projects can take more than a decade to complete, there have been exceptions. The acquisition of the CF-18, the Iltis jeep, the Airbuses and the Challenger jets spring to mind. These cases were fast-tracked, either because of an injection of political will, or desperate operational urgency, or circumstantial rapid-delivery opportunities. Sometimes all these factors came into play, but the main catalyst has been political will.

So Many Spanners in the Works

There are a number of reasons for the arduous length of the military procurement process. Some are internal to the Department of National Defence. Some arise from regulations imposed on the department from elsewhere in government. And some, unfortunately, involve the difficulties that all countries face in making purchases for their militaries. There are times when a piece of equipment that a country wants, and urgently needs, isn't immediately available. All the more reason that our country should be quick and efficient where it can.

Internal Clogging

#1 – Setting out requirements takes too long

The 2003 Report of the Minister on National Defence's Advisory Committee on Administrative Efficiency strongly criticized the Department's internal process for defining the requirements of capital projects. The Advisory Committee concluded that the internal process – which may eat up nine years on an average procurement – is too long, involves too many reviews and takes up too much senior management time for little value added.

and procurement of computer software and hardware.

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⁸¹ The Advisory Committee found that five procurement-related areas connected to the Department of National Defence were ripe for change. They included: the duplication or functional overlap between the Department of National Defence and Public Works and Government Services Canada; the initiation, approval and management of capital equipment projects; inventory management; the disposal of major weapons systems; and, the management

#2 – The three horsemen of delay

During the days when the Department had no money, it put in place painstaking processes to ensure that it spent the money that it did have prudently. As a result, there are now at least three levels of review before a project even gets to the Minister for approval. Each, of course, causes delay.

#3 – Lack of experienced personnel to manage major projects

Major capital projects are complicated and managing these projects is difficult. It gets even more difficult when you don't have experienced people in place. Because of cuts to the Department of National Defence budget in the 1980s and 1990s, and because the Forces slowed the pace at which they were acquiring equipment during that time, many of the people with the skill sets needed to help manage acquisition projects left the Department. Such people are now in short supply.

Canadian Forces Director General of Strategic Planning, Major General Doug Dempster, testified to the Committee in April 2005:

"In the 1990s, we reduced our project management capacity by about half: that is to say, our expert staffs that can work the documents and do the analysis required. In the mid-1990s, we had 1,600 Project Management person years of resources assigned to that task and today we have about 800. We have less staff to move a large number of projects." ⁸²

#4 – Too many projects pouring into the funnel

The length of the list of equipment that the Canadian Forces requires is a further complicating factor. Because of the state of the Forces' equipment, there are simply far more projects with concurrent needs than funds available. Therefore, the senior leadership of the Department of National Defence has no choice but to prioritize a number of urgently needed projects, delaying some in order that others might be completed. Too many dogs end up scrapping over too few bones.

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⁸² Major-General Doug Dempster, "Testimony."

With more money and more people, the Canadian Forces could increase the number of acquisitions they could undertake simultaneously. With more money, the Department could also initiate innovative solutions – like using private sector contractors – to expand its capacity to manage acquisitions.

The Committee recommends that

16. The Department hire experienced private contract personnel to quickly expand its project management capacity.

External Clogging

#1 – Non-military priorities affect military purchases

Sticky red tape is only part of the problem. When these other government departments get involved they do so to carry out their governmental mandates, which may have little or nothing to do with getting military personnel the right equipment to do their job.

The Committee (as it mentioned in Part II above) believes this must change. Enabling the purchase of equipment by a department whose sole job description is "to protect Canadians" ought to be recognized as paramount within the federal bureaucracy. Under the current process, too many peripheral concerns get in the way:

- Treasury Board oversees the process of government expenditure
- Public Works & Government Services Canada wants value for money
- Industry Canada promotes competition and industrial benefits
- Indian and Northern Affairs Canada promotes First Nations interests
- Atlantic Canada Opportunities Agency looks out for the East Coast
- Western Economic Diversification Canada looks out for the West
- Canada Economic Development for Quebec Regions looks out for Quebec

And so on. These are all worthy institutions, pursuing prescribed mandates. But when it comes to acquiring the right equipment to provide Canada's armed forces with the tools required to defend the country, they too often see trees (their

individual mandates) rather than the forest (Canada's national security). The Committee believes this must change.

The Committee recommends that:

17. The Government eliminate duplication of approval levels between the Department of National Defence, Public Works and Government Services Canada, and the Treasury Board to reduce the average time between the identification of a deficiency and award of a contract by two-thirds.

#2 – So many cooks

The Department of National Defence is never alone in pursuing its large projects. It must run the gauntlet of the entire federal bureaucracy as other departments – involved because of their mandates – play a role in decision-making at various points in the process. These may include:

- Public Works and Government Services Canada
- Treasury Board
- Justice Canada
- Industry Canada
- Privy Council Office
- Heritage Canada
- Atlantic Canada Opportunities Agency
- Western Economic Diversification Canada
- Canada Economic Development for Quebec Regions
- Indian and Northern Affairs Canada
- Other government departments depending on the project

The sheer friction of bureaucracy resulting from arranging consultation, meetings and conferences for the purpose of coming to any sort of joint agreement on the way ahead often makes this a cumbersome process.

#3 – More restrictions: the knee-jerk reaction to scandal

Many of the stages of consultation and deliberation connected to the capital procurement process stem from the government's obligation to ensure that

Canadians are well served when taxpayers' money is spent. That is to be commended. But the Committee believes that there are so many checks and balances now built into the Government of Canada's procurement system that it has ceased to function efficiently in the acquisition of military equipment.

The system that has resulted from recent scandal seems based on the idea that most people are crooks and that only regulation can keep them from squandering or stealing the public's funds. Treating everyone as a potential crook – instead of dealing firmly and harshly with crooks when they are found – slows the process of government to a snail's pace. Military institutions cannot operate efficiently in the interests of Canadians that way.

Checks and balances are vital to the public's confidence in government. Procurement of essential military equipment is vital to protecting Canadians and advancing their interests. But too many checks and balances means too much military equipment is delivered so slowly that it often hasn't arrived when it is needed, and when it does arrive it may not be what is needed any more.

Almost all people in government are decent, honest public servants trying to do the best they can for their fellow citizens. Accountability is a fine watchword but so is common sense. The Committee believes that reduced regulation – coupled with a strict enforcement policy against wrongdoers – will provide sufficient oversight and accountability to serve the public interest.

Why should military spending be subject to fewer checks and balances than other government expenditures?

Because:

- The lives of the people serving their country are on the line
- Equipment delayed may turn out to be the wrong equipment by the time it arrives
- Decisions as to what is the right equipment are complex enough without piling on non-military complications

Should the Department of National Defence be exempt from check and balances? Of course not. Should the Government find ways of reducing unnecessary

impediments to acquiring the right equipment at the right time? Of course. To fail to do so would be a) inefficient, b) wasteful, and c) morally wrong.

Further Complexities of Purchasing Military Capabilities

Another layer of complexity affecting the procurement of military equipment is external to both the government and the department. It is the nature of the defence industry itself. Because of the lack of capacity of Canadian industry, the pace of technological innovation and the scale of projects, procuring military equipment is not like making most acquisitions.

#1 - Capacity of Canadian industry

Canadian defence industrial capacity is not large, in international terms. There are some things that Canada just does not build. Take fighter planes. We stopped building our own decades ago. That limits the number of options within Canada that the government can turn to for fighters. A relatively small number of large firms dominate this industry, world-wide and it is often necessary to turn to those outside of Canada as a source.

#2 - Pace of development

The rapid pace of change and innovation in the defence industry can often outstrip our ability to procure needed equipment quickly.

#3 – Scale of projects

It takes time to design and build complex pieces of equipment. The purchasing process can often be shortened by buying products already in production, but the Committee recognizes that it isn't always going to be possible to acquire the right piece of equipment within months – or even within a few years – of perceived need.

Solutions

Will military procurement ever be a quick and simple process? No. That having been said, the Government should attach the greatest urgency to addressing the capital acquisition process shortcomings of the Canadian Forces.

Part IV describes a number of different capital projects that Forces require to create the options the Government needs to provide security for Canadians. These are also options our military commanders require to assure the safety of personnel in hazardous situations.

The Committee believes that the end goal should be the creation of a procurement process in which five years is the norm for an acquisition, rather than fifteen. Here are seven steps that would help get us to that target:

#1 – Exposing political interference for what it is

Because the procurement process is so slow, any project can become a potential political target. One fifteen year acquisition might start out as a priority for one government, and then become a target for one or even two subsequent governments searching for money for other causes.

Political interference is an inevitable component of military procurement. Politicians always have their constituents' needs in mind. But every time a politicians makes a short-sighted calculation that hurts the long-term effectiveness of our men and women in uniform they need to be held to account.

Canadians need reasoned political direction. They do not need the implementation of half-baked campaign promises that may win votes in a particular riding but which undermine the security of Canadians.

Defence planning and procurement is difficult enough to get right without political interference. Protecting citizens, and providing the young men and women that defend their country with the equipment they need, should transcend politics. It doesn't always. One need only look at the case of a previous government's cancellation of the Sea King replacement in 1993 to understand that the best plans of the Forces can be swept aside for reasons totally unrelated to the security of Canadians.

The Committee believes that one of the problems here is the lack of rigorous thought that often goes into the creation of political party platforms on defence and security. National Defence should not be sketched out on the back of a napkin midway through a campaign. The Committee will discuss this issue further in its next report.

#2 – Create stable long-term funding

Almost all the funding for the Department of National Defence is discretionary (meaning that it can be changed from year to year and is not locked in by legislation). This makes it a ripe target for Ministers of Finance looking to balance the federal books. However, the unintended consequence of tinkering with the Department's budget is the disruption of decades-long military plans and procurement schedules.

Symbolic belt-tightening imposes hidden costs on planners and real costs on contracts that are already in place. Projects get strung out over unnecessarily long periods of time or pushed off until they are long overdue.

Some of this is inevitable. The Department of National Defence is not immune to changes in government or changes in the fiscal health of the nation. That being said, the Committee believes that because of the complexity and importance of creating the military capabilities necessary to protect Canadians, politicians of all political stripes should make an effort to minimize changes to long-term strategic plans.

The Committee notes that the Department is in the process of creating a Defence Capabilities Plan, a plan to give the military what it will need to conduct the missions the Government assigns it. It is intended to be a roadmap for acquiring the equipment required over the decade.

One step towards longer-term stability – and hence more effective Canadian Forces – would be to ensure that the Defence Capabilities Plan is debated and accepted as a roadmap for the Department of National Defence by the major political parties in Parliament.

The Committee will discuss this issue further in its next report.

#3 – Reduce the number of projects that need to be considered by the rest of the government

The Government's legitimate interest in reviewing the acquisition process of the Department of National Defence should be guided by the urgent need to increase the capacity of the Forces to help that same Government respond to crises. Canadians simply do not have the luxury of waiting fifteen years for protection.

The number of hoops that the Department must jump through to acquire a major piece of equipment should be reduced. One means of doing this would be to raise the level of expenditures that the Minister of National Defence can authorize without having to get permission from other departments or Cabinet.⁸³

The Minister of National Defence's expenditure authority level is currently \$30 million (\$60 million for construction projects).

The Advisory Committee on Administrative Efficiency recommended that the Minister of National Defence should request an increase in his/her expenditure authority, raising it to \$60 million on certain projects. ⁸⁴ The Advisory Committee believed this would shorten the approval process of most projects by between three to six months per project. The Advisory Committee also argued that the Minister should increase the levels delegated throughout the Department of National Defence. That would be a step in the right direction, but not a big enough step.

Too Low a Limit for Such a Major Portfolio

The Committee believes that even a limit of \$60 million is too low for the Minister of National Defence considering that over the next decade the minister will face a longer, larger and more costly list of projects any other department in government.

According to the Department of National Defence 2005-2006 Report on Plans and Priorities, there are forty-nine large projects for which estimated costs exceed the Minister of National Defence's current expenditure authority limit. That leaves them tied to bureaucratic approval processes outside the Department of National Defence.

If the Minister of National Defence's approval authority were raised to \$60 million, there would still be thirty-seven projects that would be subject to negotiate government-wide red tape. However, if the Minister's expenditure authority were raised to \$500 million, only 10 projects would have to negotiate government-wide red tape.

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⁸³ See Appendix VIII for departmental expenditure authorities across government.

⁸⁴ The Minister's Advisory Committee on Administrative Efficiency suggested that once the Department had an approved Strategic Capability Investment Plan the MND should request an increase of expenditure authority to \$60 million on certain projects in concert with the level for construction.

The Impact of Raising Ministerial Expenditure Authorization Levels on Major Projects	
Ministerial Expenditure Authority Level	Number of Projects that must leave the department for government-wide approval
\$30 Million (current)	49
\$60 Million (proposed by the 2003 Committee on Achieving Administrative Efficiencies)	37
\$500 Million (proposed by our Committee)	< 10

Suggesting that the Minister's expenditure authority increase from \$30-60 million to \$500 million would inevitably raise eyebrows. Such an increase will mean that certain projects now defined as Major Crown Projects – i.e. necessitating Cabinet review and approval – would fall under the Minister's exclusive authority and reduce Cabinet oversight on these projects.

Other ministers whose departments spend large sums of money may not need higher limits, because much of their expenditures are determined by legislation, and they don't need to get Cabinet approval over and over again. Defence spending is largely discretionary, so approval is not built in.

The expansion of the Minister's authority is both necessary and long overdue. The level that defines Major Crown Projects is arbitrary and in need of revision. The \$100 million cost threshold at the heart of the definition of a Major Crown Project has remained steady for more than a decade, despite growth in Canada's economy, inflation and the relative decline in the purchasing power of \$100 million. ⁸⁵

Minister of National Defence Gordon O'Connor agreed in principle with raising authority levels when he testified that: "In principle, if the Minister of Defence authority was larger, you could move a lot of projects faster." ⁸⁶

⁸⁶ Minister of National Defence Gordon O'Connor, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (May 8, 2006), available at: http://www.sen-sec.ca.

⁸⁵ According to Statistics Canada, the Consumer Price Index has increased 129% since 1992. In the most general sense, that means that a good purchased in 1992 for \$1 would cost \$2.29 today. Had the threshold for Major Crown Projects kept pace with the purchasing power of a dollar it would now be around \$229 million, instead of having stayed steady at \$100 million. \$100 million just ain't what it used to be.

Mr. O'Connor went on to say that the issue would have to be part of discussions with other departments in the future. The Committee believes that those discussions must begin now and it would support any move to increase authority levels for the Minister of National Defence.

The Committee recommends that:

18. The Government increase

- a. the expenditure authority of the Minister of National Defence to \$500 million for any capital project; and,
- b. increase the monetary threshold value of those defence-related projects that must be reviewed by Cabinet also known as Major Crown Projects to \$500 million.

#4 – Acknowledge the capacity of Canadian industry and do not use the Canadian Forces as a regional job creation vehicle

The Government should recognize there are going to be all kinds of military projects that Canadian industry either lacks the expertise or the capacity to tackle.

Fulfilling our Committee's recommendation to acquire the large aircraft required for strategic lift would be one example. The eventual replacement of the CF-18 fighter constitutes another.

The Canadian Forces can only help provide security for Canadians if they are able to acquire the right equipment, wherever it is manufactured.

There will always be deals in which the purchase of some components of major equipment from Canadian firms can be negotiated as part of the agreement. These should obviously be pursued unless they are going to be (a) time-consuming; and (b) much more expensive.

Purchase off-the-shelf where possible: The most timely and cost effective way for the Government to provide the Forces with the equipment it needs is to purchase it off-the-shelf internationally. There are extremely few situations in

which the Canadian military requires equipment different from what is required by our allies.

Don't use DND for economic development: There are good arguments for providing federal subsidies to develop Canadian industrial capacity and help the economies of struggling regions. But this is an exercise that should take place outside the arena of military procurement. The need to create national security outweighs any country's perceived need to create economic development. **Without national security, there can be no national economic development.**

Even where Canada possesses the expertise to provide capabilities that the government requires, the Committee questions Canadian industry's capacity to tackle all required projects with the speed and efficiency that other options would afford.⁸⁷

#5 – Understand the limits of the global defence industry.

Under ideal circumstances, in a perfectly competitive industry, there are a number of different firms that can compete to provide a certain piece of equipment.

Unfortunately, many areas of national defence is not a perfectly competitive industry and in many instances wide varieties of options are not available that will meet the requirements of the Canadian Forces.

Acquiring a military capability is not like buying a personal computer where one can choose between a Dell, an IBM, a Compaq, a Macintosh and so forth. Often, there is only one company that makes specific equipment that the Forces require to do what is asked of them by the Government.

This raises all sorts of flags for Government procurement processes. In an attempt to be as transparent as possible, Government generally seeks out competition to ensure that taxpayers get value for money. But competition may not always be possible. Though it usually results in discontent in the defence industry and opposition from other departments of government, it means that sole-sourcing some defence procurement from the get-go makes a lot of sense.

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⁸⁷ Please see pages 128-131 for a discussion of the Canadian shipbuilding industry's capacity to address current needs.

#6 – Buy second-hand when practical

The Government should attempt to acquire equipment second-hand from our allies where it is appropriate.

This may be controversial in light of the problems surrounding the acquisition of the Victoria-class submarines. However, this purchase should not discredit the principle of buying second-hand.

Despite the problems, the purchase of the Victoria-class submarines was a good deal for Canada (see Appendix IX).

Acquiring equipment second-hand is a sound and economical way of quickly equipping the Forces when done properly.

The Committee believes that the Government must learn the lessons of the sub purchase:

1. Only consider equipment still in use by another country

A chief problem of the Victoria-class submarines acquisition was that the boats were non-operational and effectively mothballed when they were purchased. When one buys second hand, one should ensure the equipment is operational. One way of doing that is to have the selling country deliver it to its Canadian base.

2. Treat a second-hand purchase like a new acquisition project

Buying 'used', especially for large complex systems, can prove difficult if the same rigour used for all aspects of new acquisition aren't applied. The necessary support arrangements and materiel must be provided to make the transfer of equipment to Canada as the new 'owner' as smooth as possible.

The submarine purchase was not handled in a similar vein to how other major navy projects were handled in terms of a project management approach. While the focus was on re-activation, the re-location of existing UK training facilities to Canada, and some initial training of first crews, a number of life cycle support considerations had not been addressed by the time the subs were turned over to Canadian custody.

For whatever reasons, the submarine program did not enjoy the same degree of Integrated Logistics and Support effort that was instrumental for a relatively smooth transition of Halifax-class ships into service. Specifically, a sufficient range and quantity of spare parts were not purchased and support arrangements with industry were not negotiated (or in some cases even available). This caused problems for materiel support authorities when the boats started sailing after each had undergone its planned Canadianization.

3. Minimize Canadianization

A key factor that is currently delaying the full use of the Victoria-class submarines is the need to modify the boats with some Canadian components, principally communications gear and weapons. This Canadianization process is a normal part of any acquisition (and it was expected when the government acquired the submarines).

Tailoring to Canadian specifications can be expensive and time consuming. There are very few instances where the Canadian Forces require equipment that one of our allies do not already possess or have in production. The Committee believes that Canadianization should, in general, be minimized. That is Canadianization where necessary, but not necessarily Canadianization.

PART IV

The Tools to do the Job

The early chapters of this report have argued that the Canadian Forces are unable to provide the Government with sufficient options to confront crises at home and abroad because the Forces lack adequate money and people.

How do we define <u>sufficient options</u>? The new government has already provided us with a reasonable definition. It says it needs the resources to (a) fulfill the missions assigned by the Defence Policy Statement, as well as (b) fulfill the additional commitments that the Government made during the last election campaign. These are set out in Chapter 2, and the Committee by and large supports the Government's vision of what is needed.

The Minister of National Defence has said that he intends to produce a Defence Capabilities Plan within months. It will outline the tasks the Canadian Forces must be able to accomplish in support of Canada's Defence Policy and the resources needed – in terms of people and equipment – that will be required to perform those tasks.

This document holds great promise. If the Minister follows through, for the first time in living memory the Canadian Forces and the Canadian public will have a clear picture of what must be accomplished and which resources will be needed to make actions match words.

The Committee has identified what it believes should be on that list of essential tasks. This chapter will outline the resources that we believe must be upgraded if which resources need to be upgraded or added to provide the capacity to perform those tasks.

The Money Isn't There

One caveat: Neither the recommendations which follow, nor the vision expected to be outlined in the Defence Capabilities Plan, are affordable under current funding or under any funding proposals made public to date by the Government of Canada.

One further observation: While this chapter focuses primarily on hardware deficiencies, the cost of correcting these deficiencies does not adequately reflect the additional overall funding that will be needed, particularly for increased personnel costs.

Our armed forces need modern hardware, but they also need enough trained personnel to use and maintain that hardware.

CRITICAL ASSUMPTIONS

The critical assumptions underlying the Committee's calculations about the future tools required by the Canadian Forces are that the Government needs to, and will:

- Create a Canadian Forces with an authorized strength of 90,000 personnel;
- Address the critical funding shortfalls facing equipment and infrastructure;
- Enhance the strategic mobility of the Forces; and,
- Move forward aggressively with transformation.

What if our critical assumptions don't hold true? Focus on the priorities

The Committee outlines below all that it believes the Canadian Forces need to do the jobs required of them. However, Senate committees do not determine whether these needs will be met. Governments do. And the reality is that when one adds what the previous government committed to fixing the Canadian Forces to what this government has committed, the cash we believe is needed is going to fall short.

The Government has a variety of options. The first, of course, is that it could recognize the validity of our arguments and come up with enough money to do the job.

All other options are, by definition, imperfect. If the Government is going to settle for imperfect options, it had better think them through carefully, because any mistakes could prove tragic.

Taking the Cost-Cutting Route

Rather than nibble around the edges, the Government could decides to axe any one of a number of expensive capabilities, such as fighter aircraft, heavy lift helicopters, or strategic airlift aircraft.

There are those who would argue that Canada can muddle through without all of these. The argument goes like this: smaller countries such as Canada have to concede that their participation in any large operation overseas will likely involve some sort of coalition. Within such coalitions Canada could avoid using resources that it either doesn't have or are being employed elsewhere by taking advantage of the coalition's shared pool of resources.

This is a less radical version of the argument that Canada really doesn't have to do all that much to defend itself because the United States will always come to the rescue. The price for reliance on the United States, of course, is sovereignty.

The price for continual reliance on our allies for resources is the kind of overdependence on those allies that has been the hallmark of Canadian defence policy for too many years now.

In simple, practical terms, such over-reliance can be extremely dangerous. In any given situation, there may not be enough resources to go around. Who is most likely to get the resources at urgent moments? The country that is providing them? Or the country that is borrowing them?

Take the current situation in Afghanistan. Canadian troops rely on the coalition to supply at least two critical elements of their combat power: airborne battlefield mobility (helicopters to get to and from the battle, respond to crises and to evacuate the wounded) and combat air support (fighters, bombers, attack helicopters).

Blessedly, there have been are no reports to date of this reliance leaving our troops high and dry in difficult situations. But it is worth noting that Canada is the only country to deploy significant troops to Afghanistan without providing its own air cover to support them.

The Chief of the Defence Staff has clearly stated his belief that it is an urgent necessity for Canada to acquire its own medium or heavy lift helicopters to have its own airborne battlefield mobility. The Committee strongly supports his position.

In the future, Canada should not deploy Canadian troops in these kinds of circumstances without this type of backup. The Committee will discuss this issue further in its next report.

Some tools, of course, are more essential than others. They must survive any cuts the Government might make to optimal military spending. Acquiring or replacing the following six capabilities should be urgent priorities for the Government to address this year:

- 1. Strategic Airlift: Canada requires a true long-distance lift aircraft;
- 2. Tactical Airlift: the C-130 Hercules fleet must be replaced;
- 3. Fixed Wing Search-and-Rescue;
- 4. Battlefield mobility: the need for medium-lift Helicopters is urgent;
- 5. Fleet mobility and resupply: getting on with the Joint Support Ships; and,
- 6. Army Logistic Support: the need for new medium trucks.

A discussion outlining the importance of each of these will follow below.

If the Government is unwilling to move towards the \$25 Billion to \$35 Billion level of funding recommended by the Committee, its best option would be to eliminate certain capabilities. Not reduce. Eliminate. If four items have to go, these are the ones:

- 1. Armed Naval Icebreakers (to be discussed in the Committee's next report);
- 2. The Multi-Mission Effects Vehicle;
- 3. The "Big Honking Ship"; and,
- 4. The Mobile Gun System.

CHAPTER 1

Navy

Sea Changes: Giving Depth to the Navy

The current Defence Policy Statement states that the Navy will maintain two task groups of up to four warships. 88 One of these task groups will contribute to a Canadian Forces Standing Contingency Task Force, a high readiness force that will able to deploy anywhere on 10 days notice. The other will be attached to a Mission-Specific Task Force with a less urgent mandate, ready to be deployed on 30 days notice.

Maintaining a single High Readiness Task Group is essentially a gamble. The Government would be gambling that if the High Readiness Task Group has been deployed, Standard Readiness ships could respond to any other crises that might arise.

This is a risky wager. The Committee believes that having only one High Readiness task group on hand constitutes insufficient emergency response capacity for a country of Canada's size and global responsibilities.

Given that the mobility of the Standing Contingency Task Force is going to depend upon adequate sea lift, the Committee believes that both coasts should have high

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⁸⁸ A Naval Task Group is composed of up to four combatant vessels on each coast, with embarked maritime helicopters and a national command component. The four vessels would be: one PROTECTEUR-Class Auxiliary Oiler Replenishment ship, one IROQUOIS Class Destroyer, and two HALIFAX-Class Frigates. A national Command Component refers to the Task Force Commander (at the rank of Commodore) and his staff embarked in the Destroyer.

Readiness, in the naval context, is an assessment of the preparedness of a naval platform and its crew to successfully conduct an assigned task, role or mission. Its benchmark is an ability to operate in a conflict of mid-intensity like the Persian Gulf War. It is not necessary nor even desired that all units be maintained uniformly at the levels of readiness required for missions. These can range from routine surveillance work in domestic waters to operations that would be conducted in the presence, or potential presence, of an adversary thus requiring all sensors and weapons to be manned and available for immediate use. High Readiness ships are those available in a short time frame for combat type operations (i.e. ready to sail in 10 days). Other ships are maintained at a lower level of readiness called Standard Readiness (i.e. ready to sail in 30 days). These are capable of performing the vast majority of domestic operations and training. Ships placed at Extended Readiness range (i.e. ready to sail in 180 days) from those placed in extended maintenance periods to those placed in a care and custody status.

readiness task groups, to provide for timely deployment to anywhere on the planet. This would require keeping more ships at High Readiness.

If Canada had two high readiness task groups and one was deployed, it would leave the other in "go position" for any other emergency.

It makes little sense to maintain a high readiness task group on one coast when there is a 50 percent chance that an emergency will arise closer to the other coast.

The Committee believes that the medium- to long-term possibility of instability on the Pacific Rim – an idea which the Committee will address further in its next report – is just one scenario that could necessitate the rapid deployment of a High Readiness Task Group from a specific coast. What would happen if the High Readiness Task Group were on the East Coast at the time, or for that matter deployed overseas? The Government would be limited in its options.

Moving a task group from one coast to the other - a journey of over 10,000 kilometres - can take two weeks. Fuel costs and wear and tear on personnel are two other important considerations.

The Committee believes that though creating a second high readiness task group will require additional ships, personnel and money, it is imperative that the government plan and implement it as soon as possible.

The Committee recommends that:

19. The Department of National Defence should create two High Readiness Task Groups – one based on the Atlantic coast and one on the Pacific coast.

Replacing our Destroyers, Upgrading our Frigates

In our last report, Wounded, the Committee observed that the Navy's major warship platforms, Frigates and Destroyers, were aging and will have to be

replaced over the next fifteen to twenty years. Replacement of the Destroyers is long overdue and the need to replace the Frigates looms on the horizon.⁸⁹

The Navy has plans in place to address both these issues. The Committee, however, is not convinced that sufficient urgency is being attached to either issue. The Destroyers and Frigates are essential to Canada's defence capabilities.

Since 1990, Canada has sent warships on several missions in support of allied and United Nations maritime operations enforcing sanctions in the Persian Gulf, the Red Sea, and the Adriatic.

Interdiction operations like these involve locating and hailing merchant ships and, if necessary, sending boarding parties to verify ships' registries, status and cargoes.

One obvious example: the 2001-2003 Operation Apollo deployment against terrorism in the Middle East. As part of Operation Apollo, the Navy rotated 16 of its 18 major warships and 95 per cent of its 4,100 sailors to the Arabian Sea. During that two year operation, Canadian ships hailed more than 21,800 vessels and conducted more than half of the 1,100 boardings completed by the multinational coalition fleet in the region.

Canada's Frigates and Destroyers offer the Government its primary capacity to:

- Maintain sovereignty in our own waters;
- Defeat enemies at sea;
- Provide fire support to soldiers ashore;
- Interdict, far from our shores, vessels that might be carrying weapons of mass destruction, terrorists, illegal immigrants, narcotic drugs, or people or goods infected with virulent diseases;
- Enforce sanctions against rogue states;

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⁸⁹ The Committee observed that the Navy's destroyers would reach the end of their design lives in 2011, but that DND plans to keep them operational until 2015 because there is no other option. Extending their lives, of course, involves increased maintenance costs. We also noted that Canada's frigates were approaching their mid-life point and will soon require a refit.

- Suppress piracy along international sea-lanes; and,
- Participate in naval peacekeeping in disputed waters.

Replacing the Navy's Destroyers is long over-due

Our Destroyers also offer Canada its only means of commanding a task group of Canadian or coalition ships. This is a capability widely admired and appreciated by our allies, but it is also a capability that should be admired and appreciated by Canadians. Without this capacity, Canadians sailors in conflicts zones will always be commanded by someone else.

The Navy has begun planning for a Single-Class Surface Combatant – which would feature a mix of capabilities in a common hull – as a replacement for both destroyers and frigates. Currently, the project office for the new class of vessels is conducting studies to determine operational requirements for the new ships.

The Committee believes that there is considerable potential to developing a single class of new ships to replace the capabilities of both the Destroyers and Frigates. It would markedly reduce Operating, Maintenance and Training costs associated with developing two different types of replacements.

The Navy has a small team dedicated to pursuing the Single-Class Surface Combatant, but it is obviously in the very early stages of study and it and the Project have not yet reached the formal Identification stage of the Project Approval process.⁹⁰

The Navy does not plan to begin acquiring these ships until the middle of the next decade. The Committee is concerned that given the length of time it can take the Forces to acquire new pieces of equipment, the Single-Class Surface Combatant may not be available until long after the Destroyers are gone.

To that end we propose two remedies: a. accelerate the development of the Single-Class Surface Combatant; and, b. explore the temporary acquisition of destroyers that are already in use with our allies, such as the Arleigh Burke-class destroyers used by the United States Navy.

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⁹⁰ Please see Appendix VII for a description of the procurement process.

Upgrading the Frigates must occur on schedule

To address the current state of the Halifax-class Coastal Patrol Frigates, the Forces have planned the Frigate Life Extension Project (FELEX) to upgrade key systems. This is a normal part of a ship's life cycle. The work is currently scheduled to begin in 2010, with each hull being in refit – and out of commission – for 27 months, with the program ending in 2017. At the very least, this means that there will be times between 2010 and 2017 when the government will have to do without half of the Frigate fleet (see figure 8).

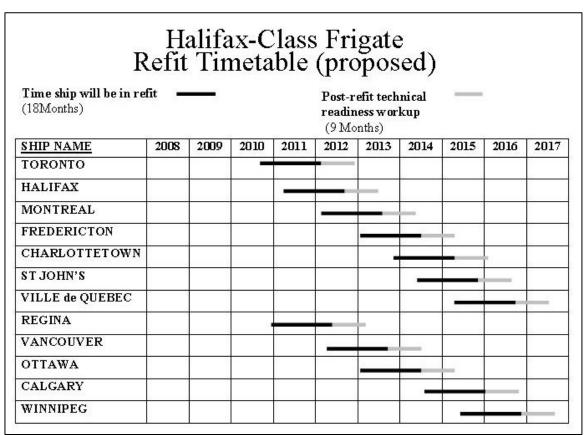


Figure 8 - The chart above depicts the currently planned schedule for the Frigate Life Extension Project. Ships will be at significantly reduced readiness for both the time that they are in refit as well as the time they will be in workup (source: Department of National Defence)

The Frigate Life Extension Project is a worthwhile program, but one that needs to be monitored closely. It should be completed as quickly as possible, without the delays that befell the Aurora Maritime Patrol Aircraft and CF-18 Fighter modernization programs (see pages 151-152). The decision to contractually break those programs into smaller components meant that aircraft stayed out of

commission for longer than necessary, leaving the Government with reduced options to patrol our skies and intercept threats.

The Committee has not seen any evidence that this stutter-step approach is planned with the Frigate Life Extension Project. It certainly shouldn't be. *Defence delayed is defence denied.*

The Committee recommends that:

- 20. The Canadian Forces accelerate the Single-Class Surface Combatant project as a successor to the Iroquois-class Destroyers and the Halifax-class Frigates, with the goal of first delivery by 2013.
- 21. The Canadian Forces complete the Frigate Life Extension Project as efficiently as possible to minimize any reduction in the capacity of the Forces.

Fleet Supply and Strategic Mobility

The Defence Policy Statement requires that the Canadian Forces possess the capability to deploy military forces just about anywhere in the world. That means being able to move people and equipment far from our shores.

In Report 1, the Committee documented the fact that the Canadian Forces are down from three to two aged naval replenishment vessels and are suffering from an overall lack of strategic sealift capability. Both issues should be addressed quickly in light of the Defence Policy Statement.

Replenishing the Fleet = Replacement of the Navy's AORs

There is a plan in place to acquire three Joint Support Ships (JSS) to replace the two remaining obsolescent Auxiliary Oiler Replenishment (AOR) ships.⁹¹ These ships are used to supply the Fleet and carry cargo such as foodstuffs, fuel,

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⁹¹ Currently there are two AORs in service – HMCS Preserver and HMCS Protecteur. There used to be three AORs, but HMCS Provider was de-commissioned June 24, 1998. Douglas Bland (ed), *Transforming National Defence Administration – Claxton Papers 6* (Kingston: Queen's University, 2005).

ammunition, medical/dental facilities and water. At an average age of 36, these vessels are reaching the end of their service life.

The plan is that the Joint Support Ships would match or exceed the AORs' capabilities. Each new vessel would require fewer crew members than the AORs, have the capacity to transport a limited amount of wheeled equipment, and provide some command and control support for forces ashore.

Pursuing a replacement to the AORs is laudable, but the Committee has two problems with the current plan: the pace of progress is too slow, and the number of vessels being acquired is insufficient.

The Department currently plans to take delivery of the first Joint Support Ship in 2012 and achieve initial operating capability in 2013. By then the average age of the AORs will be almost forty-five.

The Department does not plan to award the contract to build the vessel until at least 2008 – and that presumes that there will be no slippage in the Government's slippage-prone project approval and procurement process. That 2008 target is too distant. Innovative approaches should be adopted to accelerate the delivery of these vessels.

Furthermore, acquiring just three vessels will not provide the Government with sufficient flexibility to complete the number of missions that might be important to the country at any given time. Without access to fleet replenishment vessels like AORs, the Navy's capacity to support its other ships and the Canadian Forces overseas will be limited.

An example of this occurred just last fall. Neither of the Navy's two aged AORs – one on each coast – was able to deploy as part of the Government's response to Hurricane Katrina because both were in lower states of readiness due to scheduled refits.

AORs are ideal for disaster assistance. In 1992, for example, in response to Hurricane Andrew, HMCS PROTECTEUR delivered relief supplies to Miami, Florida, and the Bahamas.⁹³

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⁹² Department of National Defence Project Management Office Joint Support Ship (PMO JSS) Project, "Project Schedule," available at: http://www.forces.gc.ca/admmat/dgmepm/pmojss/schedule_e.asp.

The reason HMCS PRESERVER, the Navy's East Coast AOR, was not part of the Canadian contingent deployed to the U.S. Gulf Coast was because the ship had just come out of refit and was still undergoing readiness trials when Katrina hit. Had she been available, she would undoubtedly have been used just as HMCS PROTECTEUR was for Hurricane Andrew.⁹⁴

HMCS PROTECTEUR has now entered a similar scheduled refit, which will leave the Forces without that capability on the West Coast.

The Navy cannot control Mother Nature. But the Government can control whether the Navy has the capacity to offer responses to these kinds of disasters.

However, while the three Joint Support Ships specified in the current project represent an increase in capability (i.e. the roles the Canadian Forces can play) and capacity (how often they can play these roles), the Committee is not convinced that three vessels will provide the Government with sufficient flexibility to respond effectively in times of crisis. Three ships means the Canadian Forces will have to regularly rotate one ship from coast to coast just to ensure that each coast is covered when significant scheduled maintenance is required.

Also, the Committee believes that the need for JSS-type vessels has grown since the project was first announced. The expeditionary sealift requirement expected to be included in the Defence Capabilities Plan is in addition to the Government's announced intention to acquire three Joint Support Ships. This new capability will require support from a JSS-like ship. Furthermore, if the Government accepts the Committee's recommendation for a High Readiness Task Group on each coast (see pg. 86 above), there will be a need to maintain a Joint Support Ship at high readiness on both coasts at all times.

⁹³ Operation TEMPEST was the Canadian Forces response to Hurricane Andrew. In addition to the HMCS PROTECTEUR's deployment to Florida, and The Bahamas, approximately 150 Airfield Engineers deployed to Dade County, Florida.

⁹⁴ HMCS PRESERVER had just left the repair yard but was not at high or standard readiness. She was still in her post-refit trials phase when Katrina hit. She was delayed in her originally scheduled return from refit because more work than originally anticipated was required once the refit was underway. The Navy schedules its refits but the contracts must be bid in a competitive process and the bids evaluated and contracts approved etc which of course involves PWGSC and Treasury Board all the attendant normal administration. A Coast Guard vessel was used instead as a "freight hauler" for the Katrina relief effort.

Acquiring only three ships of any type is insufficient to ensure the availability of a ship on each coast. The minimum number is four. Regular fleet maintenance schedules mean that roughly one out of three vessels will always be unavailable.

The Committee believes that three Joint Support Ships limit the government's flexibility and are simply not enough to do the entire job. The government should acquire at least four.

The Committee recommends that:

- 22. The Department acquire enough capacity to have at least one Joint Support Ship available at high readiness on each coast at all times, which requires at least four ships.
- 23. The Government should provide the Department with whatever resources it requires to acquire four Joint Support Ships as quickly as possible, with first delivery by 2010.

Strategic Sealift = "Big Honking Ship"

Over and above the need to replace the Auxiliary Oiler Replenishment vessels, and as indicated in the previous section, the Defence Policy Statement also points to a requirement for a larger vessel that could perform strategic sealift functions beyond the limited capacity of Joint Support Ships.

The Committee supports the goal of making the Canadian Forces more mobile, and therefore believes that the Government must provide them with the means to acquire a new capability to embark, transport, deploy and recover a large number of troops and their equipment, vehicles and other cargo, by air and sea.

No current platform in the fleet can adequately perform this task. The Joint Support Ship fulfills a different role. Nobody should think that the Department's requirement that the Joint Support Ships have 2,500 lane meters per ship for storage will provide enough capacity to fill all the Forces' sealift needs.⁹⁵

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⁹⁵ A lane is a unit of deck area for "roll on/roll off" ships: cargo vessels designed so that containers or other cargo can be rolled on and off the decks of the ship. A lane is a strip of deck 2 meters wide. A lane meter is an area of deck one lane wide and one meter long, that is, 2 square meters (21.528 square feet).

The larger vessel has been referred to as a mini-aircraft carrier (which it is not) and "the Big Honking Ship" (which it certainly would be).

Whatever you call it, the Forces need something larger than a Joint Support Ships if they are to effectively operate in areas like littoral failed and failing states. It would be capable of supporting forces ashore in littoral areas, and by owning it, rather than renting it, the Government could avoid situations like that which occurred with the GTS KATIE.⁹⁶

The Forces are in the early stages of considering their operational requirements for this type of vessel.

There is no indication that the Government intends to have a uniquely Canadian ship designed in this case, for which the Committee is thankful. Several of Canada's close allies already have a class of vessel that performs this sort of task well.

They are using a class of ship that is called a Landing Platform Dock (LPD). The LPD's primary function is to embark, transport, and deploy and recover (by air and sea) troops and their equipment, vehicles and miscellaneous cargo. They vary in size and specifications from country to country.

This is what Canada needs, and this type of design is available off-the-shelf should the Government wish to acquire these kinds of vessels. The Canadian Forces should make it a priority to acquire a number of these vessels in the international marketplace.

The Committee believes acquiring only one ship of this type would be misguided and insufficient. It would drastically reduce the Government's flexibility to deal with more than one crisis at a time, or any crisis at all when it was in refit. How often would it be badly needed when it was in refit or already involved in another operation?

Using the same reasoning that the Committee used for Joint Support Ships, we advocate that Canada should have a least one such LPD-sized vessel available at

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⁹⁶ The GTS KATIE was the vessel that Canada hired to retrieve about 10 per cent of our total military inventory from Kosovo in the summer of 2000. It circled the Atlantic for weeks because of a legal dispute over a previous contract. The Canadian Forces finally had to board the vessel on the high seas and force it into port.

all times on the east and west coasts, which would require the purchase of four vessels in total.

The Committee recommends that:

- 24. The Canadian Forces should acquire sufficient Landing Platform Dock vessels or their equivalent, each capable of carrying an Army battle group and its equipment at a time.
- 25. The Government should provide the Department with whatever resources it requires to acquire four Landing Platform Dock-like ships as quickly as possible.

Submarines

Maintaining a sub-surface capability is critical to Canada's ability to maintain sovereignty in its own waters and operate effectively overseas, either on our own or as a component of coalition forces. The need for this capability will endure for the foreseeable future.

The Government has a duty to ensure that the submarines will serve us effectively. The Committee has always believed that Canada should maintain a strong submarine capacity. ⁹⁷ Our four Victoria-class submarines can:

- Conduct covert surveillance of our territorial waters;
- Intercept unwanted shipping;
- Conduct continental maritime defence;
- Protect a Canadian expeditionary force at sea; and
- Be used to covertly deploy special operations forces overseas.

⁹⁷ Despite a mishandled acquisition (as described in Chapter 3) and one tragic incident, the Committee believes that the submarines were cost-effective acquisition. See Appendix IX.

These are not theoretical capabilities. The ability to approach violators of Canadian waters unobserved is hugely valuable to the Canadian Navy in activities such as fisheries patrols and counter-drug operations. The Navy has concluded that the very existence of Canada's submarine capability – then the Oberon-class – provided an important deterrent effect during the "Turbot Crisis" fisheries dispute of 1995. Anecdotally, they are also reported to have had a deterrent effect on American fishing boats operating in disputed waters on Georges Bank.

Anyone with doubts about the utility of the vessels and their role in the Forces need to look no further than the report of the House of Commons Standing Committee on National Defence and Veterans' Affairs on the procurement of the boats. 99

The Victoria-class submarines are approaching their mid-life point. As soon as the submarines are fully operationally ready, planning for their mid-life refits and eventual replacement should begin.

The Committee recommends that:

26. The Canadian Forces should restore its submarine capability by making Canada's four submarines operational as quickly as possible, setting in place plans for their mid-life refit as necessary, and outlining a plan for their eventual replacement by a new generation of submarines.

Meeting the Demand for New Ships

Given the size of Canada's coastline, the importance of our maritime capabilities, and the time and effort required to acquire significant new maritime capabilities, there will always be a standing demand for various types of vessels in the fleets of the Navy, the Coast Guard, the Department of Fisheries and Oceans and the RCMP.

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⁹⁸ Department of National Defence, Leadmark: The Navy's Strategy for 2020, 64.

⁹⁹ House of Commons Standing Committee on National Defense and Veterans Affairs, *Procurement of Canada's Victoria Class Submarines* (April 2005), available at: http://cmte.parl.gc.ca/cmte/CommitteePublication.aspx?COM=8986&Lang=1&SourceId=110859. (Last visited: June 13, 2006).

The federal government's current shipbuilding policy was developed in 2001 after consultations between government and shipbuilding industry officials about the problems facing the industrial sector. 100 As part of the policy, the federal government committed to procure, repair and refit vessels in Canada subject to operational requirements and the continued existence of a competitive domestic marketplace.

The Canadian Forces and the Canadian Coast Guard urgently require the recapitalization of their respective fleets (discussed in detail in Chapter 4 and in our third report). In the next five to ten years, the Navy requires the new Joint Support Ships, possibly a strategic sea-lift capability, and a replacement for the Iroquois-class Destroyers. It must also undertake significant stringent maintenance programs to maintain Victoria-class submarines, and complete the mid-life upgrade to the Halifax-class Frigates. And that doesn't even begin to address the needs of the Coast Guard, RCMP and the Department of Fisheries and Oceans (each for different types of vessels).

The Committee is concerned that the tremendous need for ship construction in the coming years may outstrip the capacity of Canadian industry to support it (the extent of the situation is shown in Figure 9 but does not include any activity for the RCMP). Only a handful of shipyards in Canada can handle the construction of large ships for the Navy and the Coast Guard. The time frame and the nearcoincident nature of that many programs beg the question of whether Canadian shipyards are able to handle this volume in a timely way. Even an optimist would have to say probably not.

The Committee believes that the national need for these vessels is greater than the build-in-Canada commitments of the shipbuilding policy which could delay the delivery of some ships until Canadian industrial capacity can handle their construction.

The Committee recognizes the intent of the shipbuilding policy but it notes that it contains the words 'subject to operational requirements'. The Committee believes that – with the looming demand across all the government fleets – operational requirements dictate that some of the work must be done offshore to enable an overall program of the magnitude above to be completed as quickly and as costeffectively as possible.

¹⁰⁰ The Government's shipbuilding and marine policy material can be found at: http://strategis.ic.gc.ca/epic/internet/insim-cnmi.nsf/en/home.html.

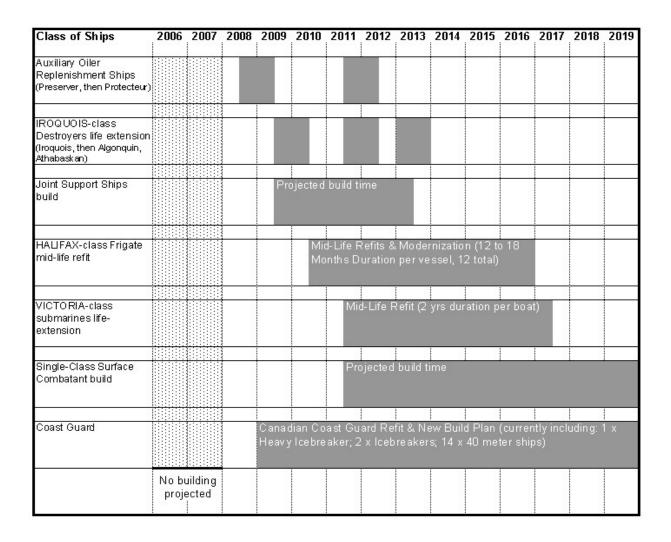


Figure 9 – Composite Timeline of Expected Navy and Coast Guard Demand on the Shipbuilding Industry in Canada. The above chart depicts major naval shipbuilding projects currently planned between 2005-2020 by the Canadian Navy and other government departments. It does not include stated commitments of the government for armed Naval Icebreakers or the Big Honkin' Ship because no timeline has been set for these projects. It also does not include expected demand of the Royal Canadian Mounted Police.

Smart planning requires long-term funding stability. This is particularly true of funding to acquire new ships. Funding should not reflect a dragged-out, start/stop, 'feast-or-famine' cycle that makes it difficult to build and maintain ships efficiently and keeps some ships in service long after they should be.

Funding for new ships – wherever they need to be built – should be sustained to allow for departments to manage the renewal of their fleets in a rational manner and permit a steady number of opportunities for industry and hence the efficient use of its capacity. In this way Canada will put the necessary vessels in the hands

of those who sail them when they need them, which should always be the overriding aim.

Furthermore, it has been an accepted principle for too long that the cost of new ships for the Navy comes with a non-military related premium. Certainly, that was the case with the design and construction of the HALIFAX Class Frigates. The Canadian Forces paid a premium of about 25% for designing and building those ships in the way that they did. The Forces cannot afford to allow that to happen again.

If the price tag of new Navy ships is inflated because of a non-defence-related policy, like regional economic development, the Department of National Defence should not bear the cost. Whatever other department is served by a premium, like Industry Canada in the case of economic development, should pay for it.

The Committee recommends that:

- 27. The Government aggressively pursue the recapitalization of the Navy and Coast Guard fleets as quickly as possible, wherever the most costeffective solutions can be acquired;
- 28. The Government maintain steady funding for new ships to support rational and timely fleet management;
- 29. The Government ensure that any non-defence related premium that arises from a procurement decisions for Navy ships not be borne by a government department such as Industry or Heritage Canada, and not the Department of National Defence.

CHAPTER 2

Army

What Canada needs on Land

For the latter half of the 20th Century, the Army oriented toward the Cold War and was structured to face heavily mechanized forces in a European theatre. Since the end of the Cold War, driven by budgetary and doctrinal considerations, the Army has shrunk and moved away from that model.

The Defence Policy Statement crystallizes this evolution by calling for continuous change of focus to a lighter, more mobile, and knowledge-based Army that is better suited for the asymmetric threats of the 21st Century – the "ball of snakes" as General Hillier describes these new threats. To sustain this evolution, the Army must change the way it recruits, trains and fights.

The Statement calls for the Army to perform a variety of combat and non-combat roles on behalf of Canadians, including warfighting, peace support, and humanitarian missions.

It was U.S. Marine Corps General Charles Krulak who coined the term "Three Block War":

"In one moment in time, our service members will be feeding and clothing displaced refugees – providing humanitarian assistance. In the next moment, they will be holding two warring tribes apart – conducting peacekeeping operations – and, finally, they will be fighting a highly lethal mid-intensity battle –all on the same day...all within three city blocks. It will be what we call the 'three block war." ¹⁰¹

This is the type of warfare that Canadian Forces are fighting in Afghanistan. This is part of the wide range of duties that fall within the overall mandate of

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¹⁰¹ Charles C. Krulak, Ret General (Cmdt USMC 95-99), "The Three Block War: Fighting In Urban Areas," presented at National Press Club, Washington, D.C., 10 October 1997, Vital Speeches of the Day, 15 December 1997, 139. Ref: http://armyonline.kingston.mil.ca/LFCA/143000440001439/THREEBLOCK.HTM

responding to man-made and natural disasters to protect Canadians and their vital interests.

Beyond the unilateral defence of our country, Canada is committed to collective defence through alliances with the United States and NATO, and through ad-hoc arrangements with other nations as part of coalitions. To meet these commitments, Canada must maintain multi-purpose combat-capable forces able to fight in all types of environments.

Evolutions in modern warfare and the technology used to fight it are constantly changing the way the Canadian Forces must prepare to engage in ground operations. The Canadian Forces have learned many lessons since the end of the Cold War about what the Army needs to do to succeed in modern operations. It has focussed its thinking and its doctrine around concepts like Network-Enabled Operations and the Three Block War.

Like all armies, the Canadian Army is organized to fight as a team, with an array of complementary combat capabilities that are designed to act in concert to defeat any adversary. Direct and indirect fire weapons, capable of engaging opponents at short, medium and long range that can destroy enemy personnel, armoured vehicles, maritime vessels and aircraft all need to be knit together to mobilize a winning military team. No one weapon can meet all needs. Like a golfer, the Army needs a full bag of different clubs, each designed for a specific purpose. However, unlike the golfer, the Army is often swinging all of its clubs at the same time.

The Committee believes that the Army is heading in the right direction. However, in order to be able to successfully and effectively achieve its aims, there are eight major procurement projects (and a host of minor ones) that need to be completed. 102

#1. Equipping Canada's Soldiers to Fight, Win and Survive

Over the next decade, the technology that soldiers carry will have to change dramatically to improve fighters' capacity to operate in complex terrain, particularly in urban areas.

¹⁰² A caveat must be attached to cost estimates within this section. Projected Costs are based what the Committee believes the Canadian Forces would need to sufficiently equip a force structure of 90,000 personnel. The costs were estimated based on an extrapolation of the current number (and costs) of vehicles the Canadian Forces plans to acquire under its current force structure.

A soldier's success depends greatly on his or her understanding of the situation at hand, the ability to take and execute orders, provide information to their commanders, identify friend from foe, and engage and subdue the enemy.

The goal of the Integrated Soldier System Project is to improve each of these capabilities. It will package electronic devices, weapons accessories, operational clothing and other personal equipment into an integrated system.

The Committee estimates that this program will cost \$300-500 million. The project is in its early stages. The Department plans for first deliveries of elements of the project in 2009 and full capability in 2015.

This program is essential to ensuring that the men and women of the Canadian Forces have the equipment they need to achieve their mission and return home safely. It should be accelerated. Waiting a decade for full operational capability is unacceptable.

The Committee recommends that:

30. The Department of National Defence should accelerate the Integrated Soldier System Project relying on proven capabilities, to achieve full operational capability by 2009.

#2. Knowing What's Going On Around You: Land Forces Intelligence Surveillance Targeting, Acquisition and Reconnaissance (LF-ISTAR)

Just as the capabilities of individual soldiers and units need to be upgraded, so do Army-wide capabilities. An overall upgrade will help save lives, act as a force multiplier and improve the chances of mission success.

The Forces are trying to ensure that the right kind of information is being collected, analyzed, distilled into sound knowledge, and being made available in a useable, timely fashion to everyone who needs it. This is the goal of the Land Forces Intelligence Surveillance Targeting, Acquisition and Reconnaissance project (LF-ISTAR).

The project does not center on any one piece of equipment. It is designed to collect battlefield information and link several battlefield functions to assist the force commander in achieving his aims. This 'system of systems' employs a variety of electronic sensors which can include cameras, infrared sensors, battlefield radar and equipment to intercept electronic signals.

LF-ISTAR is an omnibus title for a number of smaller projects and existing capabilities that are being brought together to create an enhanced information and intelligence capability for the land forces.¹⁰³

At the moment, funding status of this complicated \$1 billion project is uncertain.

The Committee recommends that:

31. The Department of National Defence should accelerate the Land Force Intelligence, Surveillance, Target Acquisition and Reconnaissance (LF-ISTAR) project, with the aim for full operational capability not later than 2009.

#3. Knowing What's Going on Around You Part II: LARV

Situational awareness is the product of information gathered from close by – emanating from sources like other soldiers and reconnaissance vehicles, and information from far away – like UAVs, communications intercepts and satellite intelligence.

A good ground reconnaissance vehicle is critical to gathering that information. The Committee supports the Canadian Forces' acquisition of 75 Armoured Patrol Vehicles for Operation Archer in Afghanistan as a first step towards maximizing this capability.

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¹⁰³ LF-ISTAR will create a network of information by tapping into existing sensors on vehicles like the Coyote, integrating new sensors from new platforms like the Multi-Mission Effects Vehicle, integrating new sensors from non-land platforms like Uninhabited Aerial Vehicles and satellites. Information processing capacity will be improved by upgrading the Army's tools to support the data fusion and information analysis functions. The Land Force Command Control and Information System (LFC2IS) and the Tactical Command and Control Communications System (TCCCS) will provide the backbone upon which the ISTAR capability will be developed. At the same time, LF-ISTAR, like similar projects in the Navy and Air Force, is being integrated under a project series called the Canadian Forces Command System (CFCS) to create a Forces-wide capability for command and control.

The armoured patrol vehicle (APV) provides good protection for troops while they conduct patrols. It also provides the capacity to conduct command, liaison and reconnaissance tasks in mountainous terrain and complex urban centres. It incorporates enhanced mine blast resistance as well as protection against both improvised explosive devices and ballistic threats.

Canada has a duty to provide the best protection possible to our soldiers in the field. The suicide bomber and "improvised explosive device" attacks on our troops in Afghanistan over the last few months have served as tragic reminders of this duty.

The Committee estimates that the Forces will require approximately 200 more of these vehicles at a total cost of approximately \$650 million.

#4. Getting From Here to There Part I: Big Trucks

There is an urgent need to replace the Canadian Forces' workhorse trucks, called the Medium Logistic Vehicle, Wheeled (MLVW).

The Forces' acquired 2,769 MLVWs acquired in the early 1980's and had an expected service life of 15 years. Ours reached the end of their expected service life in 1997-1998 – *about eight years ago*.

The age and heavy usage of the vehicle has resulted in a five-fold increase in the maintenance cost per kilometre. ¹⁰⁴ Corrosion has become a huge problem. A spray program is expected to keep the fleet in service until 2008. Corrosion isn't the only problem. Spare parts have become scarce, braking systems are breaking down, and overloading has taken its toll.

The Department of National Defence has concluded that between 2008 and 2012 the fleet will become unsupportable. Extending the life of these trucks beyond that time is technically imprudent and economically foolish.

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¹⁰⁴ Col. (ret'd) Howie Marsh, "Public Administration of the Defence Budget," *Transforming National Defence Administration – Claxton Papers 6* (Kingston: Queen's University, 2005), 27.

This is a large fleet, which means a large-scale purchase of vehicles is needed. These will be militarized commercial vehicles that will dramatically improve the capability of the Land Forces to do bread-and-butter work.

At an estimated cost of \$1.43 billion, the MLVW's replacement, called the Medium Support Vehicle Systems (MSVS), is the most expensive land capability project in the works. But new trucks are long overdue.

Some or all of these new vehicles should be adapted by reinforcing them with armour. Recent U.S. and allied experience in Iraq and Afghanistan with "improvised explosive devices" has highlighted the vulnerability of lightly armoured logistics vehicles.

The Committee recommends that:

32. The Government should accelerate the acquisition of approximately 2,900 Medium Support Vehicle Systems (MSVS), with the intent to take first delivery no later than 2008.

#5. Getting From Here to There Part II: Smaller Trucks

The Forces will also soon need to replace its smaller logistics vehicle, the Light Support Vehicle, Wheeled (LSVW). The LSVW is used throughout the battlefield in such roles as troop transport, medical evacuation, maintenance, administration and light cargo. It is transportable in a CC-130 Hercules aircraft.

These vehicles are, on average, 12 years old and will go beyond their service life around the end of the decade.

The Light Support Vehicle, Wheeled (LSVW) provides transportation capacity between that of the smaller Iltis and G-Wagon, and the larger 2 ½ ton Medium Logistic Vehicle, Wheeled (MLVW). It is based on Italy's Iveco Model 40.10 and was built at the Kelowna plant of Western Star.

The LSVW's cargo capacity is too small for traditional tactical loads. Large stowage boxes and a spare tire mount behind the cab result in a fairly short cargo bed. To overcome the space restrictions, LSVW's often tow an 850 kg trailer to provide adequate carrying capacity. Towing trailers and piling on the cargo

exacerbates the LSVW's other key limitation – the rather anaemic power provided by its Fiat 2.5 litre diesel engine.

The LSVW is unpopular. It has been criticized for poor handling, top-heaviness, unreliable brakes and transmission, and awkward engine access amongst other things. However, much of the difficulty resulted from the original specifications.

The Department emphasized fuel efficiency and low purchase price when they were looking for a new light support truck. That is what it got – a vehicle with top speeds of 25 km/h off-road and only 90km/h on pavement.

Neither the small engine (only 115 hp despite turbo-charging) nor the weak automatic transmission is adequate for tough military operational support duties. The transmission occasionally pops out of gear under stress. Fading breaks and rust have shown up far too early in the lives of these vehicles.

In the end the Canadian Forces got what they paid for - caveat emptor. 105

The Committee believes that the Forces will require approximately 4,700 replacements for these trucks as the Army transforms into a larger, but lighter and more mobile force. The Committee estimates that the cost of replacing the Light Support Vehicle Wheeled will be \$700-750 million. Replacing them as they reach the end of their mandate service life will reduce excessive maintenance costs to keep them running longer.

The Committee believes that planning for the next generation of Light Support Vehicles should take into consideration the likely need to equip some or all of them with armour.

The Committee recommends that:

33. The Government should accelerate the acquisition of the next generation of light support vehicles, with the intent to take first delivery no later than 2011.

¹⁰⁵ Canadian American Strategic Review. Simon Fraser University. At http://www.sfu.ca/casr/101-vehlsvw.html. Accessed February 2006.

#6. Firepower: Replacing Outdated Artillery

The ability to deliver massive firepower from anywhere within an area of operations is critical to military success. That firepower can be used to destroy an enemy or support infantry that have come under attack.

It has to be recognized that artillery has traditionally been a blunt instrument. Increasing concerns about civilian and friendly fire casualties has limited the utility of Canada's current artillery. Not only is unnecessary collateral damage morally wrong, it undermines support from the Canadian public.

The Forces existing M109A4 are on average thirty-four years old – fourteen years beyond the Treasury Board guidelines for service life. 106

The Forces began replacing their aging M109A4 self-propelled howitzer with M777 light-towed howitzers for Operation Archer in Afghanistan last Fall.

In a three-block war, precision is mandatory. So is the capability to employ both lethal and non-lethal weapons. And greater reach is always an asset.

The Committee believes that the Forces continue to replace their aging artillery. The Committee estimates the cost of the project at \$900 million (for approximately 83 weapons). 107

The Committee recommends that:

34. The Government should complete procurement and fielding of the new generation M777 guns no later than 2008

#7. Firepower: Acquiring the Mobile Gun System

The Army's transformation into a lighter and more mobile force does not negate its need for firepower to dominate the battlefield. Quickness is increasingly important, but it cannot replace strength.

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¹⁰⁶ Douglas Bland (ed), *Transforming National Defence Administration – Claxton Papers 6* (Kingston: Queen's University, 2005).

Even the most benign humanitarian operations have the potential to escalate suddenly into combat operations, in which a direct fire capability will be critical to the safety of Canadian soldiers and their winning a battle.

The Leopard C2 tank represents the Canadian Forces' primary direct-fire capability. It is reaching retirement age. In their place, the Canadian Forces plan is to procure 66 modern Direct Fire Support Variants (DFSVs) of the Mobile Gun System.

Replacing tracked tanks with a wheeled Mobile Gun System is part of a plan to become a lighter, more strategically mobile force. The Mobile Gun System is smaller and lighter than the Leopard tank. Although it cannot be transported in a Hercules aircraft without being partially dismantled, the Mobile Gun System can be carried on larger aircraft.

Although the Leopard tank is still an effective direct-fire vehicle, Canada has rarely deployed them either because it was politically unpalatable, or sometimes because the Canadian Forces had no method of transporting these heavy beasts to a theatre of operations in a timely way.

In the lingo of the boxing ring, tanks are heavyweights. The Mobile Gun System is considerably lighter but not nearly as well protected. MGS is worth considering, but the Committee has some reservations that it might not represent good value for money spent. Our allies have not yet decided whether to invest in this system. We shouldn't be rushing ahead with them, not at this point anyway.

#8. Firepower: Developing the Multi-Mission Effects Vehicle (MMEV)

The Army also needs vehicles with the capacity to engage ground targets – such as armoured vehicles and bunkers – as well as aircraft, including helicopters, unmanned aerial vehicles and cruise missiles.

Enter the Multi-Mission Effects Vehicles (MMEV), which will combine antiarmour and air-defence capabilities on one platform. The MMEV will also be able to engage targets hidden behind surrounding landscape features – such as hills and buildings – with its non-line-of-sight weapons system. This combination of capabilities on one platform will provide ground force commanders with an unprecedented level of flexibility.

The Committee supports the concept in principle, but has some hesitation in accepting the MMEV – as currently conceived – as being the best answer. The idea of having multiple capabilities on one vehicle sounds exotic, but it may not be all that practical. It could be viewed as an ill-advised attempt at cost cutting at the expense of soldier safety and operational effectiveness.

There may be those who think a smaller number of MMEVs could be procured in place of a larger number of single-capability anti-armour, anti-air and indirect-fire weapons. But if an MMEV is destroyed or disabled on the battlefield, the operational commander loses all three capabilities in one moment.

There is another concern. In September 2005, the Government announced its intent to undertake a project to design, develop and deliver MMEVs for the Canadian Forces. The full production of the MMEV fleet is expected to begin in 2010 following the completion of the design and development phase of the MMEV project. Do we want to invest in a long development process, or wait and consider where our allies are going on this technology?

The MMEV is a Canadian design. The Canadian Forces worked with Defence Research & Development Canada and Canadian industry through the Technology Demonstration Program to develop the fire control systems and ergonomics that will feed directly into the development of the MMEV.¹⁰⁸

While the Committee is certainly not opposed to innovative military developments within Canadian industry, it is wary of the high costs and difficulties that have often accompanied the development of weaponry that is uniquely Canadian.

It is usually a better idea to buy off the rack. The Committee hopes the MMEV is the exception to the rule, but suggests that the Government remain alert to ensure that the most cost-effective route is taken to develop this capacity.

Our soldiers need a first-class product delivered, and the Canadian Forces need a first-class product delivered at a reasonable cost. The MMEV must be procured in

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¹⁰⁸ Oerlikon Contraves Canada was selected for the MMEV project since it owns the intellectual property rights to the Air Defence Anti-Tank System (ADATS) technology, the cornerstone of the new MMEV system. According to the Department, there is no other missile system integrator anywhere in the world with the requisite expertise.

sufficient quantity to offer operational redundancy on the battlefield and be built in such a way that delivery and cost are as promised. We cannot afford – either in terms of financial costs or risk to soldiers' lives – to get bogged down in an industrial development exercise that doesn't pay off on the battlefield.

CHAPTER 3

Air Force

What Canada needs Aloft

Strategic Airlift

Strategic airlift allows for the movement of large quantities of equipment and personnel rapidly over long distances. In order to be effective, strategic airlift must be capable of moving even the largest military equipment to get a mission up and running and to keep it re-supplied once it is underway. This may include vehicles, artillery pieces, field hospitals, water purification plants and even helicopters.

Speed of response is vital. Only if Canada has its own strategic airlift capacity can the Government of Canada move essential personnel and equipment to virtually any part of this country or the world in short order.

Despite the fact that Canada is a huge country, and despite the fact that it is also thousands of miles from most potential military theatres of operation, Canada has not possessed a true strategic airlift capability since the Second World War.

Canada managed to meet most of its Cold War obligations by pre-positioning the majority of the vehicles, ammunition and other supplies required for the first days of any conflict at forward bases and staging areas. Those bases are gone now. This means that ways must be found to ship heavy equipment directly from Canada. The Canadian military currently has no effective, reliable and timely way of doing this.

Canada's defence policy, like the defence policies of most of our traditional allies, emphasizes lighter, more agile and responsive armed forces. Agility implies quick and easy movement. It is a contradiction in terms to suggest that our forces can be agile or responsive if they cannot rapidly get to where they are needed.

We Muddle Through Emergencies at Home

At home, we have muddled through a series of recent emergencies, including the Red River flood in 1997 and the Quebec-Ontario ice storm of 1998. In both cases, we were fortunate that we had enough time to respond, since lives were not immediately at risk. Nevertheless, we were forced to ask the United States for heavy airlift assistance during the Ice Storm.

Can we count on that kind of luck and generosity in the future? Would we be able to respond to a massive earthquake anywhere in the country? The Canadian Forces have personnel and resources spread across the country to assist in just about any kind of national emergency. But will we be able to get them where they are urgently needed when the time comes?

Hitching Rides Overseas

The approach of earlier Canadian governments to strategic lift people and equipment overseas has been to charter commercial planes or hitch rides with the Americans. In 1992, Canada relied on the U.S. Air Force to transport some of our armoured vehicles to Somalia. In 2002, we used civilian rentals and U.S. military aircraft to deploy to Afghanistan. Our less-than-sprightly DART response to the earthquake in Pakistan was accomplished using charter airlift.

The importance of strategic airlift is not lost on our allies. The US maintains a fleet of more than 300 large airlifters (a mix of the C-5 Galaxy and the C-17 Globemaster), and even at that, occasionally finds the need to use commercial resources for less critical or less dangerous missions. A consortium of predominantly NATO nations has set about designing and building a completely new military airlifter (the Airbus A400M) to meet their strategic airlift needs. Barring any delay in the programme, the first will be delivered in 2009. The original seven countries (Germany, France, UK, Belgium, Spain, Turkey and Luxemburg) have since been joined by Malaysia, Chile and South Africa. Unwilling to wait for the A400M, in 2001 the UK leased four of the C-17's from the US as an interim measure. They have now decided to purchase them at the end of the lease and will acquire a fifth, in addition to purchasing the A400M when it comes available. Australia has announced that it will acquire up to four of the C-17's, with the first being delivered about a year from now.

Being Part of a NATO Airlift Pool is Insufficient

As a stopgap measure, ten NATO nations (including Canada) have entered into a collective arrangement that will allow the participating nations to access a pool of leased Antonov-124's until the A400M is fielded. NATO has made arrangements with an eastern European company for AN-124's to be available on 72-hour notice for an extendable period of three years.

This agreement is clearly a short-term solution for our European allies while they are waiting for their A400Ms. *But it is not a good solution for Canada, even on an interim basis*. Since the aircraft will be based in Europe, response times to Canada will be longer than they are for other participants. In a crisis involving more than one of the participants, Canada would likely have to wait its turn to gain access to this limited pool of aircraft. When the program expires Canada is likely going to be left to its own devices since many of the other participating nations are planning to purchase A400Ms. One other problem: there is no guarantee that this commercial entity will remain viable over the long term or that the approximately 20 aging aircraft that make up this fleet will be replaced when their lifetimes expire.

Strategic airlift is at present and will likely remain a scarce commodity around the world. If Canada had this capability, we would be in a position to provide welcome, rapid, visible and relatively economical assistance in a wide array of military and other crises. ¹⁰⁹

The Committee believes that a fleet of 6 to 8 aircraft capable of carrying outsized cargo rapidly over trans-oceanic distances would be sufficient to meet these requirements.

The Committee recommends that:

35. The Canadian Forces acquire a fleet of 6 to 8 strategic airlift aircraft by early 2008 that can guarantee a rapid response to emergencies in Canada and around the world and proper support to Canadian operations overseas.

¹⁰⁹ With a strategic airlift capacity, Canada could serve its own needs while allaying some of the costs involved by helping other countries meet their needs. The capacity that we could offer other countries to assist in moving their troops and equipment would bolster Canada's influence (and reputation) in international circles, while earning rental money that would offset the cost of keeping our aircraft fuelled and maintained.

Hercules Tactical Airlift

The CC-130 Hercules has been the Canadian Forces' trusted workhorse since the 1960s.

These aircraft provide the ability to move troops, supplies and smaller vehicles within an area of operations and are unique in their ability to operate from short and austere airports that provide little in the way of ground services. This capability is absolutely essential in the remote regions of Canada and for the support of Canadian troops operating in difficult territory abroad. The Hercs have also been pressed into service as the fixed-wing search and rescue aircraft for northern, central and eastern Canada.

Canada's Fleet of 32 30 Hercules is Aging, Dwindling

Canada's fleet of Hercules is among the oldest in the world. The cost and time required to maintain our Hercules has skyrocketed. In the coming years, it is likely to cost more to keep the current fleet flying than it would to purchase new aircraft.

In 2002, the Committee reported that on any given day up to 20 of the Hercules – or about two-thirds of the Canadian Forces fleet at the time of 32 aircraft – sit on the ground waiting to be repaired. This sad situation has actually worsened. Nineteen of the oldest Hercules are reaching the point of being "beyond economical repair." The fleet now only consists of 30 aircraft as two have already been parked permanently and will never fly again. The rest will soon follow.

Media reports during the November 2005 election campaign suggesting that a plan had been approved to replace the Hercules fleet were premature. No contracts were signed and no replacements are on their way.

These aircraft have been lifelines for Canadian Forces operating at home and abroad. Troop mobility is essential. Re-supply under difficult operational conditions is essential. Canada needs this kind of aircraft to perform these critical tasks.

If we need strategic airlift (and we do), we also need to replace the wide range of capabilities that the Hercules can provide.

The Committee recommends that:

36. The Canadian Forces should replace the oldest 20 to 25 aircraft in its Hercules fleet as an urgent priority with a target of no later than 2007 for the first delivery of the new aircraft with similar capabilities.

Medium-Lift Helicopters

The Government decided to dispense with Canada's modest fleet of seven Chinook medium-lift helicopters as a cost-saving measure in the early 1990's. They were sold to the Netherlands. The Government assessed the needs of the Canadian Forces at the time, and determined that the Chinooks were expendable.

Experience gained in recent operations, however – especially in Afghanistan – has shown that Canada needs the type of battlefield mobility provided by the Chinooks. They are a real asset, especially in tough geographic locations. 110 Ironically, the Canadian Task Force in Afghanistan relies on our Dutch allies to carry troops in the very Chinooks that were once part of Canada's fleet.

These helicopters are especially useful where roads and railways and other conventional means of transport are disrupted. The Canadian Government was forced to contract a Russian-built medium lift helicopter to support the DART in its ongoing earthquake relief mission in Pakistan. 111 Canada is filled with remote and rocky terrain, so these helicopters would also be useful for domestic disasters.

The Forces have yet to put a number on how many medium-lift helicopters they require. The Committee, noting the Defence Policy Statement's increased emphasis on special operations capabilities and light fast-moving sea-based expeditionary forces, and taking into account our own recommendation to expand the military, recommends the purchase of significantly more medium lift helicopters than were sold off.

¹¹⁰ On November 29, 2004, Major-General Andrew Leslie testified to the Committee that as a Commander in Afghanistan he would like his Forces to have had more substantial aviation support. He said that if Canada is going to continue similar missions, the Forces would have to "think about aviation, how to move soldiers from point A to point B in very rugged terrain, over hostile forces." Available: http://www.sen-sec.ca.

111 "Private B.C. chopper helps quake victims" *The Kingston Whig-Standard* (08 November 2005): 11.

Without medium-lift helicopters, Canada will be forced, as LGen Andrew Leslie testified, to keep "sending young men and women tiptoeing through minefields at midnight because we don't have the lift to pick them up and put them on the top of the hill."112

The Committee estimates that approximately 16-20 Medium Lift Helicopters, at a total cost of approximately \$2 billion, would be sufficient to adequately maintain the capacity that is required to ensure that Canadian Forces personnel can effectively and safely prosecute the missions the Government asks of them.

The Committee recommends that:

37. The Canadian Forces commence procurement of a fleet of 16 to 20 medium-lift helicopters with a target of 2007 for first delivery.

Maritime Helicopters

The requirement for a Medium Lift Helicopter capability is a separate issue from the seemingly endless project to replace the notorious Sea Kings, Canada's maritime helicopters. As the Committee noted in Report 1, the fleet of 29 Sea King helicopters (now 28 Sea King helicopters)¹¹³ eat up vast amounts of maintenance resources for every flying hour and now principally support only the High Readiness ships. A new fleet of 28 CH-148 Cyclone helicopters will not be operational until near the end of the decade.

Sea Kings operate off Frigates, Destroyers and Auxiliary Oil Replenishment ships and perform a variety of tasks including anti-submarine warfare that differ than those envisaged for the Medium Lift Helicopters.

The new Maritime Helicopters will provide a critical extension to the "eyes and ears" of Canada's surface fleet that was designed to have onboard helicopters to fully realize its potential to counter both surface and sub-surface threats. It is essential that this long-overdue program move forward at the best possible pace to make this enhanced capability available to our Navy as soon as possible.

¹¹² Major-General Andrew Leslie, "Testimony," Proceedings of the Standing Senate Committee on National Security and Defence (November 29, 2004), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Come/defee/04cv-e.htm?Language=E&Parl=38&Ses=1&comm_id=76.

113 One helicopter crashed in the North Sea on exercises with the Canadian Forces.

CF-18 Fighters

CF-18s represent our only tool for controlling Canada's airspace, protecting our cities from an airborne threat, fulfilling our obligation to help protect North American airspace under the NORAD agreement and providing air cover in support of Canadian Forces operations abroad.

In the last five years, CF-18s have provided increased airborne surveillance following the 9/11 attacks and provided overhead CF-18 protection for G8 Conference at Kananaskis, Alberta. As they did during the Cold War – and now in the face of a possible terrorist threat – a number of these aircraft stand on continuous alert at various locations around Canada.

The Committee believes that fighters constitute a unique, essential tool and that the Government must maintain this capability for at least the next ten to fifteen years.

The first step to maintaining this capability is completing belated mid-life update programs. CF-18s were purchased in the early 1980's. They are past due for updating with more technologically advanced sensors and communications equipment and adapting them to modern precision weaponry. Not only will these updates increase the effectiveness of these aircraft, they will make it possible for Canada to continue to work with our allies.

The decision to split the update program into smaller components may have been the only affordable choice at the time. It has meant, however, that these essential new capabilities will not be in place for quite a while. A significant percentage of the aircraft fleet will be stuck in hangars undergoing modification for at least another five years

Participation in the Joint Strike Fighter Project

As we approach the end of the expected life of the aircraft, the question remains: What comes next? The Government must now begin to address the future of Canada's fighter capability in the next decade.

At the moment, there is no active program to replace to the CF-18. Canada is however, one of nine countries participating in the development of the Joint Strike

Fighter, a US-led program to build the next-generation fighter aircraft.¹¹⁴ Canada has invested approximately \$200 million in the program thus far and will decide by the end of 2006 whether to remain in the program into its next phase. Canada's participation has given it a seat at the development table with the opportunity to contribute to the design; has gained Canadian industry access to compete for high technology development and manufacturing work (worth about \$150M so far); and has given us a preferential place in line should we eventually decide to purchase the aircraft.

CP-140 Aurora Maritime Patrol Aircraft

CP-140 Aurora Maritime Patrol Aircraft detect and counter submarines in our waters, provide air surveillance of our territory and coastlines, and are used for maritime surveillance in support of Canadian Forces operations abroad.

Like CF-18s, the Maritime Patrol Aircraft were purchased in the early 1980's and are going through a protracted mid-life update program.

Colonel Matte, the officer responsible for our east coast Aurora Maritime Patrol Aircraft, told the Committee that because of this refit program – and the lack of spare parts and technicians – his greatest challenge was simply getting aircraft in the air:

"The capacity to generate flying hours today is less than half of what it was in the early 1990s. While our air crew remain safe and proficient to fly their assigned missions, there has been an appreciable reduction in the number of hours flown and subsequently the exposure and experience gained by our crews."

More bad news: it now appears that the CP-140 will require extensive structural upgrading if it is to continue flying past 2020. Funding for this airframe project is already late and requires immediate approval by the government.

¹¹⁴ Other partners in the program include: the United Kingdom, Italy, the Netherlands, Turkey, Australia, Denmark and Norway.

¹¹⁵ Colonel Perry Matte, "Testimony," *Proceedings of the Senate Standing Committee on National Security and Defence* (May 5, 2005), available at: http://www.parl.gc.ca/38/1/parlbus/commbus/senate/Com-e/defe-e/21evae. htm?Language=E&Parl=38&Ses=1&comm_id=76.

If the Government of Canada fails to maintain the Canadian Forces' Aurora capability, the Forces will lose its only strategic surveillance platform. Canada's ability to monitor its coasts and the North will be significantly diminished.

The Committee recommends that:

38. The government and the Canadian Forces make it a priority to complete the Aurora upgrade programs in the minimum possible time so that these essential capabilities are once again available to protect Canadians.

Fixed-Wing Search and Rescue Aircraft

Canadians and visitors to Canada can find themselves lost, hurt and desperate in remote parts of our rugged terrain or in our coastal waters. Their equally desperate loved ones have always been able to bank on the fact that the Canadian Forces have often been able to come to the rescue.

To bolster its capacity to help those in dire straits, the Canadian Forces recently acquired the new Cormorant Search and Rescue helicopter. Once it becomes fully operational, it will provide an enhanced rescue capability for many years to come. 116

There is another major component of the Forces' Search and Rescue capacity: the fixed-wing search aircraft. The news here is not so good. Fixed-wing missions are currently conducted using the aging CC-115 Buffalo aircraft in the western mountainous regions of Canada and the CC-130 Hercules in the remainder of the country. The CC-115 Buffalo played a much larger role in Search and Rescue until the mid-1990s when most of them were retired due to age and the prohibitive cost of maintenance.

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¹¹⁶ The Cormorant Maritime Helicopters are experiencing ongoing problems associated with cracks in its tail rotor assembly. This has led to a lack of available aircraft and has the potential to impact the essential training of Cormorant air crews. The Department is working on a solution with the original equipment manufacturer to determine the cause of problem. The Canadian Forces are the first users of this helicopter to detect problems with its rotor assembly, likely because they are also the heaviest users of the aircraft in the world. Presuming the problem is fixed quickly, the Committee believes this is part of the normal evolution of a new system.

The CC-130 Hercules is unsuited to low level search in mountainous regions due to its large size and relative lack of agility. For this reason, six Buffalo aircraft were kept in service when the remainder of the fleet was retired.

These aircraft were replaced from the existing fleet of CC-130s Hercules. Now these aircraft are in the same shape as their retired predecessors.

Canadians depend upon the Forces' reliability to perform Search-And-Rescue. In the Fall of 2004, the previous Government recognized this fact and at one point it announced that a replacement program be placed on the "fast track."

Two years later, no new fixed-wing Search-and-Rescue platform has been ordered. The process seems to have been knocked off track by the perceived needs that a competitive bidding process take place and that Canadian industry be given an opportunity to participate.

The Committee recommends that:

39. The government re-energize the "fast track" acquisition of approximately 20 to 24 aircraft to fulfill the fixed-wing search and rescue role so that the first of these aircraft can be delivered by 2007.

Uninhabited Aerial Vehicles

Canada has a tremendous challenge overseeing its expansive territory and endless coastlines.

Even in the days when more resources were available, it was difficult to maintain surveillance of our land and waters with manned aircraft and surface ships. Now that potential threats to Canada are more diverse, and new challenges to Canadian sovereignty in the Arctic loom on the horizon, we are even less able to stand by.

The rapidly emerging field of uninhabited aerial vehicles (UAVs) offers hope for a practical and affordable solution.

Recent operations by Canada and/or its allies in Iraq and Afghanistan have demonstrated that UAVs are an invaluable reconnaissance tool where ongoing surveillance is required in unfriendly surroundings.

According to Major General Andrew Leslie:

"We had [tactical unmanned aerial vehicles] in Afghanistan. They did great work. The ability to use [UAVs] to see over the next hill is a mission winner, whether it is war, peace support or humanitarian support. I think five or ten years from now, it would be nice if a variety of elements down the army chain of command, company, battle group and brigade, had their own means of checking out what is on the other side of the hill without sending a young soldier through a minefield at midnight." ¹¹⁸

Though the Canadian Forces are using UAVs on an interim basis in the difficult terrain of Afghanistan, Canadian troops generally lack a reliable means of "finding out what is over the next hill."

The Forces have tested several versions of this technology in various environments in Canada, including the Arctic and on the Atlantic Coast. The Canadian Forces Experimentation Centre outside Ottawa is currently engaged in a study of UAVs.

The Committee first recommended that the Government acquire an array of uninhabited platforms in its report *Canada's Coastlines: The Longest Under-Defended Borders in the World* (October 2003). Such an array would include both tactical and strategic uninhabited aerial vehicles. It would cost approximately \$250 million, depending on the type and number of vehicles acquired.

UAVs hold great promise as part of the solution to Canada's surveillance needs at home and abroad. The more ambitious the Government becomes in integrating this technology into general use, the safer Canadians, their military personnel and their sovereignty will be.

The Committee recommends that:

40. The Government and the Canadian Forces should acquire, deploy and operate an array of uninhabited air vehicles as an integral component of a national intelligence, surveillance and reconnaissance picture by 2008.

¹¹⁸ Major General Andrew Leslie, "Testimony," *Proceedings of the Standing Senate Committee on National Security and Defence* (November 29, 2004), available at: http://www.sen-sec.ca.

CHAPTER 4

Other Capabilities

Special Operations Capabilities

Cold War era **conventional military forces** are organized and equipped to fight 'conventional' battles that are largely force-on-force encounters. They are characterized by large armoured land formations, technologically sophisticated 'blue-water' naval ships and equally sophisticated 'blue-sky' superiority jet fighter aircraft. Conventional fighting usually took place in open areas, like the eastern US in the American civil war, the Russian steppes in the Second World War, or in the Iraqi desert in the Gulf War. **Conventional operations** could also be conducted in urbanized regions like Europe in the Second World War, or in Baghdad during the US invasion of Iraq.

Forces that were designed to fight in a less sophisticated environment, against guerrilla or insurgent forces in difficult terrain such as a jungle, highly urbanized or mountainous region, were characterized as **'unconventional'**. They are generally lightly equipped and the troops consider themselves to be more aggressive and physically fit than 'conventional troops,' although this is emotionally debated among soldiers. Examples of **unconventional operations** would be the British operations against the Japanese in Burma during the Second World War, much of the US operations in Vietnam and current coalition operations in major Iraqi cities. Note that conventional operations can become unconventional, and vice-versa. US operations in Iraq were originally conventional during the invasion, but have become unconventional now because of insurgent forces.

Special operations are distinct from conventional and unconventional operations. They are operations that aim to destroy, neutralize or disrupt selective, high-value targets. Examples might include the killing of an effective enemy commander, the destruction of an important enemy headquarters or facility, the rescue of hostages held by terrorists, or the capture of war crime suspects.

NATO defines special operations as "military activities conducted by specially designated, organized, trained and equipped forces using operational techniques and modes of employment not standard to conventional forces. These activities are

conducted across the full range of military operations independently or in coordination with operations of conventional forces to achieve political, military, psychological and economic objectives. Politico-military considerations may require clandestine, covert or discreet techniques and the acceptance of a degree of physical and political risk not associated with conventional operations."

Special Operations Forces (SOF) are generally not designed for force-on-force encounters, but are organized and trained to strike selected, high-value targets. They strive to make every action an unfair fight in their favour. Well-trained SOF are disciplined and ruthless, with a 'no-fail' attitude.

The recently established the Canadian Special Operations Forces Command (CANSOFCOM) has the following missions:

- a. provide the CDS and operational commanders with high readiness forces capable of conducting special operations across the spectrum of conflict at home and abroad;
- b. provide centralized command of all activities and organizations that generate special operations forces;
- c. conduct special operations on orders of the CDS;
- d. develop special operations forces, doctrine and procedures.

CANSOFCOM includes the following units:

- a. Joint Task Force 2 (JTF-2) Canada's counter terrorist unit, located at Dwyer Hill, ON;
- b. Canadian Special Operations Regiment (CSOR) to operate independently or in support of JTF-2, located at CFB Petawawa, ON;
- c. Special Operations Aviation Unit (SOAU) a helicopter squadron located at CFB Petawawa, ON;
- d. Joint Nuclear, Biological, Chemical Defence Company (JNBCD Coy) to protect military personnel or assist civilian authorities in the event of a nuclear, biological or chemical incident, located at Trenton, ON.

To be effective, Special Operations Forces must combine highly motivated and capable personnel, extreme and rigorous training and sophisticated, technologically advanced equipment. They also need effective combat back-up in critical operations.

The Special Operations Command will be capable of operating as an independent formation but its primary focus will be to generate Special Operations Forces elements to support Canada Command (Canada COM) and the Canadian Expeditionary Forces Command (CEFCOM).¹¹⁹

The Committee has examined the structure and role of JTF-2, as well as the proposed additional Special Operations components. We have concerns as to whether their structure and resources allotted will adequately support the very demanding roles that this extraordinary force will be expected to play.

Enabling Special Operations

The Committee acknowledges the government's intention to provide CANSOFCOM with a suite of modern "enabling" capabilities, including combat reinforcement, logistical and medical support. This will greatly increase the capacity and effectiveness of Canadian special operations.

What are these enabling capabilities that JTF-2 requires to improve its performance?

- Assured strategic airlift that guarantees Special Operations Forces can reach any part of Canada in single-digit hours.
- Assured ground mobility to move to and manoeuvre within the incident area.
- An expanded logistics capability to assure that it is able to support and sustain multiple operations – of real importance if Canada sustains multiple terrorist attacks at the same time.
- A variety of capabilities that could spell the difference between success and failure on high-risk assignments. These include special language skills, unique weapons skills, unconventional modes of clandestine insertion and expanded intelligence capabilities.
- A new, well-equipped, Special Operations Forces training base to replace inadequate facilities at Dwyer Hill, outside Ottawa.

¹¹⁹ Canadian Forces plans for the creation of this Special Operations Command were still in development at the time this report went to press.

All this points to a new and welcome interest in modern special operations by DND and the Canadian Forces. Some changes and additions to headquarters bureaucracy and support will be needed to ensure appropriate force development activity in this field. While such capability has been embedded in operational level headquarters and the Strategic Joint Staff, there is a need to develop effective and continuous special operations force development and equipment procurement.

The Committee recommends that:

41. DND immediately establish a standing Special Operations Forces Equipment Project Office to address the need for expanded special operations equipment on a continuing basis, for an enlarged Canadian Special Operations Forces formation.

Joint Task Force 2 (JTF-2)

JTF-2, which operates both domestically and internationally, is Canada's ultimate counter-terrorist force – our incident-management response force of last resort. The unit, equipped with leading-edge technology, is composed of highly-trained assault specialists whose capability and reputation rank them among the very best in the world. JTF-2 is held at high readiness and trained to conduct counter-terrorist operations anywhere in Canada or abroad.

Canadians know very little about JTF-2. The Committee expressed concern over the amount of secrecy surrounding the unit in Report 1. While the Committee accepts the requirement for operational and personal security, authorities should do more to make Canadians aware of the role and missions of JTF-2 without compromising its safety or usefulness. The updated JTF-2 website is at least a step in the right direction. ¹²⁰

JTF-2 has had some difficulty in retaining personnel in recent years. Life for personnel is both secretive and highly demanding. It places significant stress on family life. It is a mix of anxiety – waiting on constant call – and intense pressure when the call finally comes. As well, private security companies have been expanding exponentially since 2001 and they often offer lucrative short-term

¹²⁰ The website can be found at: http://www.dcds.forces.gc.ca/units/jtf2/default_e.asp. Last accessed January 15, 2006.

contracts that can significantly exceed JTF-2 military pay and allowances over the same period.

The Committee is pleased to note that the Government has acted to address this issue by increasing the allowances. The JTF2 allowance has been increased from two to six steps based on years of qualifying service with annual compensation ranging from \$7,488 to \$8,964 for general support personnel, from \$13,680 to \$16,356 for close support personnel and from \$21,756 to \$25,260 for assaulters.

The Canadian Forces compensation scheme includes special allowances to compensate CF members for skills and knowledge requirements that are not used regularly over a career and therefore are not compensated in base pay. The Special Operations Assaulter Allowance is an example of such an allowance. The allowance contains six steps with annual compensation ranging from \$15,000 for those with less than two year's qualifying service as an assaulter to \$39,576 for those with 14 years or more qualifying service.

These allowance improvements, together with the other rewards of military service and recent base pay improvements, make JTF 2 compensation competitive with the external labour market and with members of other nations' special operations forces.

The Canadian Forces are working to double the size of JTF-2 but indications are that the expansion is going slowly. The Government will not reveal the status of the unit's planned personnel expansion.

The Committee recommends that:

42. The Canadian Forces complete the expansion of JTF-2 by 2009.

Canadian Special Operations Regiment (CSOR)

The Canadian Special Operations Regiment was established on 1 February 2006 and is currently in the process of building up personnel, training and equipment. It

¹²¹ Department of National Defence Backgrounder. *Joint Task Force 2 (JTF2) - Allowance Policy Review.* At http://www.forces.gc.ca/site/newsroom/view_news_e.asp?id=1872. Accessed April, 2006.

will be a highly trained, high mobility special operations force that is capable of independent operations, as well as supporting both special and conventional operations forces. At full strength, the Canadian Special Operations Regiment will have approximately 750 personnel and form three direct action companies and a special operations forces company that will complement other capabilities in CANSOFCOM, including JTF-2.

Drawn from all parts of the CF, the unit will have a broad range of capabilities to operate in Canada and abroad. Personnel will possess a host of skills that enable them to operate in a variety of terrains and environments. They will be highly flexible and adaptable, with the capability to work in small groups for extended periods of time without significant support. The Regiment's tasks could include support to counter-terrorism operations, direct action, special reconnaissance and other sensitive, high-risk operations.

By summer 2006, half of the unit headquarters and service support will be in place, as well as the first company trained to a basic level. To 'jump start' the process, the Army Commander provided this first company complete from the 3rd Battalion, The Royal Canadian Regiment. Remaining volunteer personnel will be recruited from across the Canadian Forces – male and female; Regular and Reserve; sailor, soldier and air personnel.

There will be two categories of personnel in the Regiment. Category 1 will comprise Canadian Special Operations Regiment Operators, to be employed in tactical special operations and high value tasks. Category 2 personnel will be drawn from Regular and Reserve force military occupational groups to fill specific staff and support positions.

The Committee recommends that:

43. Other Canadian Forces elements provide further "jump start" formed bodies, commensurate with their ability to do so and in keeping with the unit ability to absorb them. For instance, to follow the lead of The Royal Canadian Regiment, each of the other Army infantry regiments might provide a company. Or the Royal Corps of Canadian Artillery and the Royal Canadian Armoured Corps could provide a platoon each. The Navy may wish to contribute an initial group of trained boarding party personnel to establish a presence.

Canadian Special Operations Aviation Unit

The Canadian Special Operations Aviation Unit is currently equipped with the Bell-Textron CH 146 Griffon helicopter, a helicopter that some feel is not adequate for conventional military operations let alone special operations.

In 1998, the Auditor General said in a report

"We noted in the projects we examined that affordability constraints resulted in only low-end capability being purchased, limitations in the number purchased, or both ... the Griffon helicopter cannot meet the army's original lift and communications requirements."

Also in the same report,

"Operational tests that could have been carried out on the Griffon to assess the aircraft's suitability for military use were not done before acquisition. As a result, the Department is now discovering that the aircraft's capabilities are being stretched to their limits, particularly when the Griffon is used in applications that push its envelope, such as search and rescue operations. Problems not yet resolved include engine over-torques, and electrostatic shocks to personnel who ground the aircraft as it hovers.... prior to acquisition the Department did not test the new Griffon helicopter's ability to conduct military missions. After the aircraft was introduced into service it became apparent that its capability to perform certain military tasks is limited." 122

The purchase of the Griffon was the first major Canadian Forces foray into "commercial off-the-shelf" procurement. Unit purchase prices were lower since development costs were already absorbed by previous commercial customers for the civilian Model 412. The Canadian Forces needed only to pay for the militarization kits. Despite the ease of adapting the civilian 412 model to military roles, the Griffon remains essentially a *commercial* helicopter – hardly the type of helicopter to be assigned to special operations. Unfortunately, unclassified

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¹²² Auditor General of Canada. *1998 Report of the Auditor General of Canada – April – Chapter 4 – National Defence – Buying Major Capital Equipment*. At <a href="http://www.oag-bvg.gc.ca/domino/reports.nsf/a1b15d892a1f761a852565c40068a492/381b983f33af9fde852565ec00625acc?OpenDocument&Highlight=0,griffon#0.2.2Z141Z1.RL0RBG.LYQPRE.66. Accessed April, 2006.

information on the current status and use of the Griffon helicopter in the Canadian Special Operations Aviation Unit is not being made public.

What is known however, is that when carrying troops equipped for combat, the Griffon can be fitted with either long range fuel tanks *or* Kevlar armour plating, but not both. This means that troops going further into a conflict zone are less protected. The Griffon is also incapable of lifting even the lightest artillery gun in the Canadian inventory. Tail blade weakness has also resulted in crashes, some of which have killed pilots. 123

This is hardly a helicopter that should be assigned to Special Operations Forces.

The Committee recommends that:

- 44. DND immediately establish a project office to initiate procurement of a modern, combat capable tactical helicopter suitable for use by Canadian Special Operations Forces; and
- 45. A Special Operations Forces helicopter be acquired by 2009, to be operationally capable when the expanded JTF-2 and the full Canadian Special Operations Regiment reach its full operational capability.

Joint Nuclear Biological and Chemical Defence Company

Since 1976, the Canadian Forces has maintained an enhanced and deployable nuclear, biological and chemical defence response team (NBCRT) for support to domestic operations. The events subsequent to September 11, 2001, emphasized that nuclear, biological and chemical defence is a critical element of domestic and international security. Increasing the Canadian Forces capability was given a higher priority and the December 2001 Federal Budget provided \$30 million to enhance NBC defence capability across the military and establish the JNBCD Company as an immediate response unit, at Canadian Forces Trenton, where it has access to military airlift in time of crisis.

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¹²³ Simon Fraser University. *Canadian American Strategic Review*. At http://www.sfu.ca/casr/101-ch146.htm. Accessed April 06.

The JNBCD Company maintains an initial response component on a very high readiness posture as part of the National Chemical, Biological, Radiological and Nuclear Response Team and can be deployed by road or by air.

The JNBCD Company is a truly "joint" unit with members coming from the army, navy and air force. It can conduct detection, sampling and identification of the full range of chemical, biological, radiological and nuclear hazards, and provide expert advice to incident commanders and senior officials. February 1, 2006 marked CF JNBCD Company's reassignment to Canadian Special Operations Forces Command where it continues to be able to rapidly respond to Chemical Biological Radiological Nuclear (CBRN) terrorist threats as the CF Component of the National CBRN Response Team or Special Operations Force.

Tactical Airlift – Big Honkin' Helicopters

This report also discussed the need for medium lift tactical helicopters to provide battlefield mobility. This capability is also required for the tactical deployment and support of Special Operations Forces. Although there are some special fittings required from time to time when supporting special operations, there is not, at this time, a requirement to have dedicated medium-lift helicopters placed in support of Canadian Special Operations Forces. However, in procuring the medium lift helicopters recommended earlier in this report, it is essential that enough of them be procured to ensure the availability of at least three at any time, to support special operations.

The Committee recommends that:

46. The acquisition of medium lift helicopters, recommended earlier in this report, include sufficient numbers to ensure the availability of at least three helicopters, to be placed in support of special operations if needed.

Tactical Airlift - CC130 Hercules

Earlier in this report, the grave difficulties facing the Canadian Forces CC-130 Hercules aircraft fleet were discussed and recommendations made for the purchase of new tactical airlift aircraft. The urgent need for Hercules replacement is

reinforced by the fact that the operational deployment of Special Operations Forces and all Canadian parachute forces is, for the most part, dependent on Hercules aircraft.

Further, as with special operations tactical helicopters, the deployment and support of Special Operations Forces requires specially equipped versions of Hercules aircraft, suitable for a variety of non-traditional combat scenarios. And given that Special Operations Forces must be held at high readiness and prepared to deploy at short notice, time does not allow the leisurely adaptation of Hercules aircraft equipped for normal duty, into an immediately capable special operations aircraft.

If Canada's expanded special operations capability is to be taken seriously, there is no alternative to having dedicated tactical airlift assigned in support.

The Committee recommends that:

- 47. In addition to the replacement CC-130 Hercules aircraft called for earlier in this report, DND further procure three additional Hercules aircraft to be dedicated to special operations and appropriately equipped for that role; and
- 48. Of the three special operations aircraft, at least one be maintained at the same high readiness as the Special Operations Forces it will support.

Strategic airlift

Earlier in Part IV of this report, we recommended that The Government and the Canadian Forces acquire a fleet of strategic airlift aircraft that can guarantee a timely and robust response to emergencies in Canada and around the world and proper support to Canadian operations overseas. Domestic emergencies could include terrorist activity.

As Canada's ultimate counter-terrorist force, JTF-2 must be able to reach any likely crisis site within Canada, in single-digit hours, if it is to be at all effective. From the base of Special Operations Forces in the Ottawa area, no location in the country should be without the effective operational help of JTF-2 beyond nine

hours – that's a *maximum* of nine hours from warning to operational assault if necessary.

In order to be able to do this, Canadian Special Operations Forces require assured, high readiness strategic airlift, capable of deploying operationally capable Special Operations Force elements to any target area in the time required. An important criteria inherent in this requirement, is the ability to be able to land on austere airstrips. As a result, if the crisis arises in anywhere other than a significant urban area with a large airport, the Canadian Forces Polaris aircraft will not be able to land. On the other hand, where a CC-130 Hercules aircraft can land in a variety of austere locations, it does not have the speed or load capacity to meet urgent special operations domestic deployment times.

While it is true that, depending on the location, a combination of Polaris and Hercules aircraft might be sufficient (e.g. fly the Polaris into Edmonton, then transfer the JTF-2 operational element and its equipment into a Hercules that flies to the crisis site in Jasper, Alberta), it eats up valuable operational time and produces additional complications that are not needed. The optimum requirement is for a strategic lift aircraft that can land on austere airstrips if and when required.

While the deployment of Special Operations Forces abroad will also entail a degree of urgency, quick reaction in international deployments is less critical than in domestic crises. Nonetheless, international deployments of Special Operations Forces will have their own unique requirements and any aircraft procured must be able to be suitably adapted as necessary to effectively support this activity.

The Committee recommends that:

- 49. In procuring a fleet of strategic airlift aircraft, as recommended earlier in this report, the aircraft acquired must be suitable for the strategic deployment of Canadian Special Operations Forces direct to the maximum possible number of locations in Canada, in a time and manner appropriate to operational readiness requirements that will be established; and
- 50. The strategic airlift aircraft required be appropriately adaptable to the support of special operations and that the numbers acquired allow for at least one aircraft to held at the same high readiness as the Special Operations Forces.

Disaster Assistance Response Team (DART)

Canada's DART is staffed by approximately 220 Canadian Forces¹²⁴ personnel equipped to fly into disaster areas and deliver limited medical treatment, limited engineering capacity and 200,000 litres of safe drinking water a day for up to 40 days.¹²⁵ It has deployed five times since it was established in 1996.

At Town Hall meetings the Committee hosted across Canada, the Committee quickly discovered how popular this unit is. That makes sense: the DART dispenses emergency care for people in distress, rather than bombs or bullets.

The Disaster Assistance Response Team has successfully deployed twice in the last eighteen months to aid victims of the December 2004 Asian Tsunami and the October 2005 earthquake in Pakistan.

The DART may be popular with Canadians generally, but critics complain that it inhales money and is an inefficient and often ineffective way to deploy disaster assistance. CARE Canada President John Watson has been quoted as saying that sending the DART to Sri Lanka after the December 2004 South Asian Tsunami made "no sense, except as a PR exercise." ¹²⁶

As it noted in Report 1, the Committee accepts that there are negative aspects to the DART's capability and how it is employed. It is very expensive to deploy. The Turkey mission cost \$15 million. The cost of the Kashmir mission has been estimated at more than \$12 million.

http://www.cbc.ca/story/canada/national/2005/02/03/tsunami-care050203.html.

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¹²⁴ The majority of the personnel assigned to DART work in other jobs and only come together when the unit is called out. There are a very small number of "full time" DART personnel who maintain the equipment and Standard Operating Procedures.

¹²⁵ The DART is an organization intended to aid in recovery until more comprehensive aid arrives. It dispenses basic medical care and follows protocols to prevent the spread of disease. The unit can help repair infrastructure, fix power and water supplies, build roads and bridges, and set up refugee camps. It is also designed to help improve communications to assist overall relief efforts. Its primary role is to respond to natural disasters around the world: it is not designed to operate in conflict zones. It went to Honduras in 1998 to provide hurricane relief. It went to Turkey in 1999 to provide earthquake relief. It went to Sri Lanka two weeks after a tsunami hit the island on December 26, 2004. And it was deployed to Kashmir in October 2005 in the wake of the horrific earthquake estimated to have killed more than 50,000 people.

¹²⁶ Dr. Watson accused the government of using "a Cadillac where a motor scooter or skateboard would be more useful" and added that he would "throw up" if he heard one more person say that DART is fast moving and capable of responding faster than non-governmental organizations. Source: "Canada's tsunami response 'amateur,' CARE chief says," *CBC News* (February 3, 2005), available at:

However, the Committee respectfully discounts most criticism of the DART because it believes there is an incalculable benefit to Canadian interests in having Canadian Forces personnel in Canadian uniforms delivering relief to people around the world. The Government of Canada can support international aid agencies, such as Mr. Watson's, and continue to deploy the DART as well.

The Committee believes that the unit could be deployed in more timely and effective ways.

Getting DART There on Time

DART is always on 48-hour notice to ship out, but its ability to deploy rapidly is limited by the speed at which it gets orders to do so and its ability to get to the location of a crisis.

It was, for example, only six days after the October 2005 earthquake in Pakistan that politicians authorized deployment of DART. The majority of the DART left for Pakistan a day later and the last of the team deployed three days after that. There needs to be a way to reduce that lag time.

Even when a decision is made to go, the Forces lack the in-house capability to move the DART and its equipment efficiently. To get the DART to a place like Pakistan quickly, the Forces must rent aging Russian strategic airlift aircraft to carry its equipment (personnel are not allowed to travel on these aircraft). This is not only expensive; it adds an element of uncertainty to a deployment. At present, the Forces must acquire strategic lift after a crisis occurs, while other countries without lift may also be vying for that transport.

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¹²⁷ See Appendix X

THE IDEAL WAY TO DEPLOY THE DART

As soon as it looks like the DART might have a role anywhere in the world, the Chief of the Defence Staff should have the authority to be proactive; to issue the DART a warning order and dispatch a couple of DART experts en route to the incident area where they would link up with Canadians, including the embassy team and military attaches, and/or locals.

While they are en route, the diplomatic niceties can be worked out. In a perfect world, they can go right to work assessing the situation and feeding the information back to Canada. If it falls apart for some reason, the taxpayers are only out the cost of a couple of airfares.

While the experts are en route, preparations should be continuing with the idea that the advance party of the DART will be airborne on its way to the incident no later than 48 hours after the first indication of a crisis. It should be dispatched as soon it is ready.

Requirements can be tailored in more or less real time and any missing equipment can be brought with follow-on personnel and equipment loads. In the best case scenario, the advance party arrives in minimum time and starts setting up. In the worst case, the mission gets called off and the advance party has to turn back.

The Committee does not believe that this advance deployment would constitute a waste of money, even if the mission were scrubbed. By doing this, the DART would have just executed a live exercise – the best way to train, enhance and confirm readiness to do the job when they are needed.

Hurdles to implementing a system as described above include:

- It requires Canadian-owned strategic airlift, which Canada does not have;
- This kind of "readiness" costs money that the Canadian Forces don't have; and,
- It requires the increased availability of the members of DART, who are military personnel committed to other on-base "day jobs" that would suffer if they were frequently called out.

There is currently too much lag time before the DART gets off the ground. Canadian Forces spokespersons are always quick to point out that the DART was not designed as an emergency response team like police or firefighters, instead DART is designed to mitigate the impact of an emergency after it occurs. The Committee believes that the principle is wrong and that DART should be something much closer to an emergency response team.

The most critical work in any disaster is done first in the very short term. Long-term rehabilitation is important, but life-and-death crises are more important. Though the DART is always ready to go, the Government has not proven that it has the deployment procedures in place to get the DART to a disaster site within a week, when the most urgent work is done. Nor is the team permitted to hang around long enough to help put enduring solutions into place for trauma victims.

Protocols should be altered and infrastructure changed to get the DART into the air more quickly, and with a wider variety of relief capacity.

There will be times when the DART won't be able to get into the air soon enough – foreign governments may take too much time giving approval, for instance. But better to expend extra resources being ready than to show up late.

Widening the DART's Scope

The DART currently has a very narrow niche. It is designed for a set of specific tasks. By all accounts it does them very well. But according to the Government, it is not an all-purpose disaster response force that would have been appropriately deployed to New Orleans after Hurricane Katrina, or to Haiti after flooding there in 2004.

The Government should seriously consider expanding the DART's mandate and capabilities. It should also give greater focus to potential domestic operations as part of the government's "Canada First" strategy

Finally, the DART's command centre is currently in Kingston, its personnel are in Petawawa (few of whom are assigned to DART on a full-time basis), and its deployment centre is in Trenton. The whole unit should call Trenton home, and be on 24-hour standby for deployments to crises in Canada and around the world.

All this, of course, is predicated on Canada having its own strategic airlift capacity (see pages 166-167 above).

The Committee recommends that:

51. The Canadian Forces should:

- a. Station the DART and its equipment at a facility that is co-located with the strategic and tactical airlift that will move it;
- b. Acquire sufficient capable Canadian-controlled strategic airlift to give the DART a global reach within hours;
- c. Establish closer liaison between DART and appropriate government departments and agencies such as the Public Health Agency, the RCMP and Transport Canada;
- d. Conduct joint training exercises to ensure that the DART will be able to operate in efficient harmony with provincial and municipal first responders across the country, and conduct similar exercises with other like-minded nations around the world; and,
- e. Expand the DART's capabilities to deal with a wider array of natural disasters.

52. The government should:

- a. Instruct the Canadian Forces that the Government's default decision will be to deploy the DART where possible, as soon as possible, and the unit should prepare accordingly;
- b. Ensure that regional defence and police attachés are aware of the DART's capabilities and are trained to assist the DART advance team as soon as it is on site;
- c. Speed up federal decision-making on the use of the DART by establishing more effective inter-departmental protocols for its deployment.

Defence Intelligence

Military intelligence receives information from human and technological sources, open and covert sources, internal sources from within the Forces or the government, and external sources – particularly other governments. The Canadian Forces must have the capacity to collect, process, analyze and disseminate this information to its planners and commanders.

In Report 1, the Committee concurred with two internal Department of National Defence studies which identified serious deficiencies in Defence Intelligence. The Committee also made the point that ongoing Canadian Forces structural changes (to create Canada Command, Canadian Expeditionary Forces Command and the Special Operations Group) will further strain defence intelligence resources.

Some of these challenges are being addressed. The rehabilitation process called for by the Defence Intelligence Review has been labelled high priority and it is being implemented.

It remains essential that Canada increase the number of trained military intelligence personnel. This can only be accomplished by increasing the capacity of the Canadian Forces School of Military Intelligence to train intelligence officers.

The Committee recommends that:

53. The Canadian Forces should expand the Canadian Forces School of Military Intelligence and increase the number of trained military intelligence officers.

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¹²⁸ The Defence Intelligence Review (DIR), completed in 2004, did not find one part of defence intelligence to be adequate, except at the tactical level. Source: Department of National Defence. *Defence Intelligence Review: Report to the DCDS* (20 May 2004).

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

APPENDIX II

Index of Recommendations

- 1. Canadian defence budgets be based on longer-term thinking about the security needs of Canadians, rather than short-term fixes to manpower shortages and equipment rust-out.
- 2. The Government should grow to, and maintain the annual budget of the Department of National Defence at, between \$25 Billion to \$35 Billion by 2011-2012 to increase its capacity to protect Canadians and their interests at home and abroad, and to contribute to international peace and security.
- 3. A minimum of 30 per cent of the defence budget be allocated to capital expenditures every year to ensure that Canadians serving their country have the infrastructure and equipment they need to do their jobs well, with as little threat to their lives as possible.
- 4. The Government should immediately cancel the Expenditure Review Committee commitments affecting the Department of National Defence and ensure that the Department has use of at least the full allocation of the original \$12.8 billion over five years allocated by the previous Government AND the additional \$5.3 billion over the next five years, promised by the current Government.
- 5. The Canadian Forces increase the authorized strength of critical, high-demand trades to ensure an operationally sufficient supply of personnel in those trades, so that deploying operational units are never undermined by a lack of specially trained personnel to do critical technical tasks; and that the Canadian Forces recruiting and training system is specifically geared to sustain those levels.
- 6. The Canadian Forces should maintain regular strength of 90,000 personnel. This is the minimum needed to keep 75,000 trained and effective personnel the number required to sustain the domestic and overseas tempo Canada may be required to protect its citizens and advance their interests.

- 7. The Government publicly commit to a moratorium on additional deployments of the Canadian Army until it has reached a steady state of personnel, likely around 2011-2012.
- 8. The Canadian Forces should build a recruiting and training system that can recruit and train the personnel necessary to maintain a steady state level of 90,000 personnel.
- 9. All recruiting processes should be streamlined so that every transaction is electronic and transferable between Canadian Forces' components.
- 10. The Canadian Forces expand incentive programs to ensure that qualified personnel do not leave the Canadian Forces.
- 11. The Canadian Forces be allocated the resources to allow them to create a Navy demonstration team to co-ordinate recruiting activities with ship visits to Canadian cities and complement the Snowbird and Skyhawks.
- 12. Once new recruits are trained, the Canadian Forces should utilize them to attract other new recruits by allowing them to go home for short periods of special leave to encourage others with similar potential to join the Forces.
- 13. The Canadian Forces should shorten the recruitment process for both the Regular Forces to a maximum of one-month between enrolment and the commencement of basic training.
- 14. The Department of National Defence should be allocated enough funds to invest at least 4 per cent of Realty Replacement Cost annually the amount recommended by Treasury Board guidelines toward the maintenance and replacement of its infrastructure to address outstanding deficiencies caused by years of underfunding.
- 15. The Department of National Defence:
 - a) Consolidate its aging armouries;
 - b) Initiate a National Reserves Construction and Rationalization Program that will build or lease modern accommodation for Reserve units, with

particular attention to creating shared-use facilities with local or provincial agencies where possible.

- 16. The Department hire experienced private contract personnel to quickly expand its project management capacity.
- 17. The Government eliminate duplication of approval levels between the Department of National Defence, Public Works and Government Services Canada, and the Treasury Board to reduce the average time between the identification of a deficiency and award of a contract by two-thirds.

18. The Government increase

- a. the expenditure authority of the Minister of National Defence to \$500 million for any capital project; and,
- b. increase the monetary threshold value of those defence-related projects that must be reviewed by Cabinet also known as Major Crown Projects to \$500 million.
- 19. The Department of National Defence should create two High Readiness Task Groups one based on the Atlantic coast and one on the Pacific coast.
- 20. The Canadian Forces accelerate the Single-Class Surface Combatant project as a successor to the Iroquois-class Destroyers and the Halifax-class Frigates, with the goal of first delivery by 2013.
- 21. The Canadian Forces complete the Frigate Life Extension Project as efficiently as possible to minimize any reduction in the capacity of the Forces.
- 22. The Department acquire enough capacity to have at least one Joint Support Ship available at high readiness on each coast at all times, which requires at least four ships.
- 23. The Government should provide the Department with whatever resources it requires to acquire four Joint Support Ships as quickly as possible, with first delivery by 2010.

- 24. The Canadian Forces should acquire sufficient Landing Platform Dock vessels or their equivalent, each capable of carrying an Army battle group and its equipment at a time.
- 25. The Government should provide the Department with whatever resources it requires to acquire four Landing Platform Dock-like ships as quickly as possible.
- 26. The Canadian Forces should restore its submarine capability by making Canada's four submarines operational as quickly as possible, setting in place plans for their mid-life refit as necessary, and outlining a plan for their eventual replacement by a new generation of submarines.
- 27. The Government aggressively pursue the recapitalization of the Navy and Coast Guard fleets as quickly as possible, wherever the most cost-effective solutions can be acquired;
- 28. The Government maintain steady funding for new ships to support rational and timely fleet management;
- 29. The Government ensure that any non-defence related premium that arises from a procurement decisions for Navy ships not be borne by a government department such as Industry or Heritage Canada, and not the Department of National Defence.
- 30. The Department of National Defence should accelerate the Integrated Soldier System Project relying on proven capabilities, to achieve full operational capability by 2009.
- 31. The Department of National Defence should accelerate the Land Force Intelligence, Surveillance, Target Acquisition and Reconnaissance (LF-ISTAR) project, with the aim for full operational capability not later than 2009.
- 32. The Government should accelerate the acquisition of approximately 2,900 Medium Support Vehicle Systems (MSVS), with the intent to take first delivery no later than 2008.

- 33. The Government should accelerate the acquisition of the next generation of light support vehicles, with the intent to take first delivery no later than 2011.
- 34. The Government should complete procurement and fielding of the new generation M777 guns no later than 2008
- 35. The Canadian Forces acquire a fleet of 6 to 8 strategic airlift aircraft by early 2008 that can guarantee a rapid response to emergencies in Canada and around the world and proper support to Canadian operations overseas.
- 36. The Canadian Forces should replace the oldest 20 to 25 aircraft in its Hercules fleet as an urgent priority with a target of no later than 2007 for the first delivery of the new aircraft with similar capabilities.
- 37. The Canadian Forces commence procurement of a fleet of 16 to 20 medium-lift helicopters with a target of 2007 for first delivery.
- 38. The government and the Canadian Forces make it a priority to complete the Aurora upgrade programs in the minimum possible time so that these essential capabilities are once again available to protect Canadians.
- 39. The government re-energize the "fast track" acquisition of approximately 20 to 24 aircraft to fulfill the fixed-wing search and rescue role so that the first of these aircraft can be delivered by 2007.
- 40. The Government and the Canadian Forces should acquire, deploy and operate an array of uninhabited air vehicles as an integral component of a national intelligence, surveillance and reconnaissance picture by 2008.
- 41. DND immediately establish a standing Special Operations Forces Equipment Project Office to address the need for expanded special operations equipment on a continuing basis, for an enlarged Canadian Special Operations Forces formation.
- 42. The Canadian Forces complete the expansion of JTF-2 by 2009.
- 43. Other Canadian Forces elements provide further "jump start" formed bodies, commensurate with their ability to do so and in keeping with the unit ability to absorb them. For instance, to follow the lead of The Royal Canadian

Regiment, each of the other Army infantry regiments might provide a company. Or the Royal Corps of Canadian Artillery and the Royal Canadian Armoured Corps could provide a platoon each. The Navy may wish to contribute an initial group of trained boarding party personnel to establish a presence.

- 44. DND immediately establish a project office to initiate procurement of a modern, combat capable tactical helicopter suitable for use by Canadian Special Operations Forces; and
- 45. A Special Operations Forces helicopter be acquired by 2009, to be operationally capable when the expanded JTF-2 and the full Canadian Special Operations Regiment reach its full operational capability.
- 46. The acquisition of medium lift helicopters, recommended earlier in this report, include sufficient numbers to ensure the availability of at least three helicopters, to be placed in support of special operations if needed.
- 47. In addition to the replacement CC-130 Hercules aircraft called for earlier in this report, DND further procure three additional Hercules aircraft to be dedicated to special operations and appropriately equipped for that role; and
- 48. Of the three special operations aircraft, at least one be maintained at the same high readiness as the Special Operations Forces it will support.
- 49. In procuring a fleet of strategic airlift aircraft, as recommended earlier in this report, the aircraft acquired must be suitable for the strategic deployment of Canadian Special Operations Forces direct to the maximum possible number of locations in Canada, in a time and manner appropriate to operational readiness requirements that will be established; and
- 50. The strategic airlift aircraft required be appropriately adaptable to the support of special operations and that the numbers acquired allow for at least one aircraft to held at the same high readiness as the Special Operations Forces.

51. The Canadian Forces should:

a) Station the DART and its equipment at a facility that is co-located with the strategic and tactical airlift that will move it;

- b) Acquire sufficient capable Canadian-controlled strategic airlift to give the DART a global reach within hours;
- c) Establish closer liaison between DART and appropriate government departments and agencies such as the Public Health Agency, the RCMP and Transport Canada;
- d) Conduct joint training exercises to ensure that the DART will be able to operate in efficient harmony with provincial and municipal first responders across the country, and conduct similar exercises with other like-minded nations around the world; and,
- e) Expand the DART's capabilities to deal with a wider array of natural disasters.

52. The government should:

- a) Instruct the Canadian Forces that the Government's default decision will be to deploy the DART where possible, as soon as possible, and the unit should prepare accordingly;
- b) Ensure that regional defence and police attachés are aware of the DART's capabilities and are trained to assist the DART advance team as soon as it is on site;
- c) Speed up federal decision-making on the use of the DART by establishing more effective inter-departmental protocols for its deployment.
- 53. The Canadian Forces should expand the Canadian Forces School of Military Intelligence and increase the number of trained military intelligence officers.

APPENDIX III

Extract from the Chief of the Defence Staff's Action Team 1 Report Part 1– Executive Summary

INTRODUCTION - THE SECURITY ENVIRONMENT AND CANADA

- 1. <u>General</u>. The security environment facing Canada and the CF poses a myriad of complex defence and security challenges. Using the failed and failing states that dot the international landscape as havens from which to attack, global terrorism has become a major security threat, while inter and intra-state conflict throughout the world continues to affect Canadians and Canadian interests. In order to meet these challenges effectively, the recently released Defence Policy Statement (DPS reference A) has provided a new vision for the CF that will require fundamental changes to its organization and culture.
- 2. <u>Post-Cold War Conflict</u>. Although in general terms the future is uncertain, some of its specific features are more apparent. At the end of the Cold War, many analysts developed the belief that major interstate wars had become a thing of the past and that a more peaceful era, fuelled by liberal democracy and the triumph of the free market over communism, would spread throughout the world. ¹²⁹ In the following decade, it became all too apparent that these hopeful predictions bore little resemblance to reality, and that conflict and international strife have been major and enduring features of the post-Cold War security environment, especially in regions characterized by failed and failing states.

¹²⁹ John Mueller, <u>Retreat from Doomsday</u>. <u>The Obsolescence of Major War</u> (New York: Basic Books, 1989), pp. 240-242; Francis Fukuyama, "The End of History?" <u>The National Interest</u>, Summer 1989, available at http://www.marion.ohio-

state.edu/fac/vsteffel/web597/Fukuyama_history.pdf#search='the% 20end% 20of% 20history% 20the% 20national% 20 interest'; Fukuyama, The End of History and the Last Man (New York: Free Press, 1992); John Keegan, A History of Warfare (New York: Alfred A. Knopf, Inc., 1993), pp. 378–385; Niall Ferguson, The Cash Nexus. Money and Power in the Modern World, 1700–2000 (New York: Basic Books, 2001), pp. 395–425. For opposing views of this argument, see Samuel P. Huntington, "The Clash of Civilizations?" Foreign Affairs Vol. 71 No.1, (Summer 1993), 22–49; Samuel Huntington, The Clash of Civilizations and the Remaking of the World Order (New York: Simon and Schuster, 1996), and perhaps the most concise criticism, Joseph Nye, What New World Order?" Foreign Affairs Vol. 71 No.2, (Spring 1993), 83–96.

- 3. Globalization and Canada. The problems created by failing states will continue to be sources of concern for the foreseeable future. The reason for this is that in the globally interconnected world, domestic, continental and international security have become increasingly integrated. Whether a state can compete in the globalized economy will largely determine whether it succeeds or fails. Pressures from within due to the scarcity of resources, including fresh water and sources of energy, and from rapid urbanization, environmental degradation, and pandemic disease will also influence a state's fate. Moreover, modern communications, which are a by-product of globalization, will mean that these problems will be increasingly difficult for the world's wealthiest countries to ignore. In short, the world has changed fundamentally, and Canada is certainly not the "...fireproof house, far from the sources of conflagration" as Canada's League of Nations delegate Raoul Dandurand boasted in 1927. As the recent history of Afghanistan demonstrates, events in remote countries have an immediate impact at home, and this reality has exposed Canadian complacency and shattered our sense of security.
- 4. Emerging Threats. Conflict will likely take many forms and will continue to be characterized by a violent clash of wills pulled between Clausewitz's 'paradoxical' trinity: primordial violence, hatred and enmity; the play of chance and probability; and the rationality of policy. Conflict will range from inter-state and intra-state warfare to asymmetric threats to the Canadian homeland from trans-national terrorist organizations such as Al Qaeda, which have the ability and the willingness to cause a level of damage and destruction once reserved solely for nation-states. Indeed, the nightmare scenario of a terrorist attack employing weapons of mass destruction has forced western societies to view their national security in a new light (including enhancing law enforcement and other domestic security practices) and to draw stronger links between the military and lead civil authorities. Indeed,

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Ralph Peters, <u>Beyond Terror. Strategy in a Changing World</u> (New York: Stackpole Books, 2002), pp. 324-325; Michael Klare, "The New Geography of Conflict," <u>Foreign Affairs</u> Vol. 80 No.3 (May/June 2001), 49–61; Nicholas Eberstadt, "The Population Implosion," <u>Foreign Policy</u>, Issue 123, (March/April 2001), 42–53; Susan Raymond, "Foreign Assistance in an Aging World," <u>Foreign Affairs</u> Vol. 82 No.2 (March/April 2003), 91–95; Michael T. Klare, <u>Resource Wars: The New Landscape of Global Conflict</u>, pp. 210–223; John Stremlau, "Ending Africa's Wars," <u>Foreign Affairs</u> Vol. 79 No.4 (July/August 2000), 121–122; Robert Kaplan, <u>The Coming Anarchy: Shattering the Dreams of the Post Cold War</u> (New York: Random House, 2000, pp. 35-38.

¹³¹Desmond Morton, A Military History of Canada, (McClelland & Stewart Inc., 1992), p. 176.

¹³² Carl von Clausewitz, On War, ed. M. Howard and P. Paret, (Princeton: Princeton University Press, 1976), p. 89.
133 Steven Metz and Douglas V. Johnson II, Asymmetry and U.S. Military Strategy: Definition, Background, and
Strategic Concepts (Carlisle, PA: Strategic Studies Institute, 2001), pp. 9–12; The National Strategy for the Physical
Protection of Critical Infrastructures and Key Assets (Washington: The White House, 2003), available at:
http://www.dhs.gov/interweb/assetlibrary/Physical_Strategy.pdf; Richard A. Falkenrath, "Problems of Preparedness.
US Readiness for a Domestic Terrorist Attack," International Security Vol. 25 No. 4 (Spring 2001), 147–86; US
Congress, Office of Technology Assessment, Proliferation of Weapons of Mass Destruction, Assessing the Risks,

one of the "great challenges confronting Canada in the years ahead will be defining an appropriate strategy that can deal with the inevitable shifts in US strategic focus as it responds to the evolving war on terrorism." Not only will this require an increased focus on security cooperation with the US, but reflective of the interrelated nature of domestic and international security, there will be increased calls for intervention involving 'coalitions of the willing' in the failing regions of the developing world. ¹³⁵

5. Threats to Canada. The recently released DPS has acknowledged the interrelated nature of domestic and international threats to Canadian security brought about by the increasingly globalized world. Indeed, not only has a global economy emerged, but also a far more interconnected world in terms of ease of travel and communications. Terrorist organizations will continue to exploit these by-products of globalization in order to advance their agendas on the international stage. Moreover, the DPS also acknowledged the link between failed and failing states and the use of these environments by terrorists from which to plan and mount operations against North America. The defence policy states that an "increasingly interdependent world has tightened the links between international and domestic security, and developments abroad can affect the safety of Canadians in unprecedented ways. Today's front lines stretch from the streets of Kabul to the rail lines of Madrid to our own Canadian shores." ¹³⁶

OTA-ISC-559 (Washington: US Government Printing Office, 1993), pp. 9–11; Thomas J. Badey, "Nuclear Terrorism: Actor-based Threat Assessment," Intelligence and National Security Vol. 16 No. 2 (Summer 2001), 39–45; Brian M. Jenkins, "Will Terrorists Go Nuclear?" Orbis Vol. 29 No. 3 (Autumn 1985), 507–516; J. Carson Mark, Theodore Taylor et al., "Can Terrorists Build Nuclear Weapons?" available online at http://www.nci.org/k-m/makeab.htm.

Peter Johnston and Michael Roi, <u>The Future Security Environment 2025</u>, ORD Project Report PR 2003/14 (Ottawa: September 2003), p. 31.

¹³⁵ Ralph Peters, <u>Beyond Terror. Strategy in a Changing World</u> (New York: Stackpole Books, 2002), p. 325; Stephen J. Blank, "The Future of Transcaspian Security," <u>Strategic Studies Institute Paper</u> (August 2002), pp. 18–19 available at http://www.carlisle.army.mil/ssi/pdffiles/PUB111.pdf; Jeffery Record, "Collapsed Countries, Casualty Dread, and the New American Way of War," <u>Parameters</u>, Vol. 32 No.2 (Summer 2002), 5–7.

Department of National Defence, <u>Canada's International Policy Statement: A Role of Pride and Influence in the World: Defence</u>, (Ottawa: 2005), p.5.

APPENDIX IVDefence Spending as a Percentage of GDP

FISCAL YEAR	DEFENCE AS A % OF GDP
1983-84	1.7
1984-85	1.7
1985-86	1.7
1986-87	1.7
1987-88	1.7
1988-89	1.6
1989-90	1.6
1990-91	1.6
1991-92	1.5
1992-93	1.5
1993-94	1.5
1994-95	1.3
1995-96	1.2
1996-97	1.0
1997-98	1.0
1998-99	1.0
1999-00	1.0
2000-01	0.9
2001-02	0.9
2002-03	1.0
2003-04	1.0
2004-05	1.1
2005-06	1.0

SOURCE: Treasury Board Secretariat and Department of National Defence, *Making Sense Out of Dollars 2005-2006*.

Defence as a Percentage of Total Government Expenditures

FISCAL YEAR	DEFENCE AS % OF TOTAL GOVERNMENT EXPENDITURES
1983-84	7.2
1984-85	7.1
1985-86	7.4
1986-87	7.7
1987-88	7.5
1988-89	7.5
1989-90	7.5
1990-91	7.3
1991-92	6.7
1992-93	6.5
1993-94	7.0
1994-95	6.4
1995-96	5.9
1996-97	5.6
1997-98	5.8
1998-99	5.8
1999-00	6.4
2000-01	5.7
2001-02	6.1
2002-03	6.6
2003-04	7.0
2004-05	7.1
2005-06	6.8

SOURCE: Treasury Board Secretariat and Department of National Defence, *Making Sense Out of Dollars 2005-2006*.

APPENDIX VDetailed Comparison with Other Countries

Defence and Foreign Aid Spending: NATO and G-20

This appendix contains various measures of defence and foreign aid spending of both NATO and G-20 countries.

Data has been collected from several open sources. Numbers for a specific country may vary slightly from table to table or graph to graph. Precise figures vary from source to source, and because of the calculations, rounding errors may occur.

9		Country Data	10	Defence F	Defence Exnenditure - 2005	005	Fore	Foreian Aid - 2005	305
COUNTRY	Population (2004)	GDP (2004) (\$US billions)	GDP (2005) (\$US billions)	US\$ (billions)	US\$ per capita	% of GDP	US\$ (billions)	US\$ per capita	% of GDP
Argentina	39,537,943	153.00	181,00	1.79	\$40	0.99%	n/a	n/a	n/a
Australia	20,090,437	637.30	665.00	13.20	\$582	1.98%	1.67	\$25.14	0.25%
Brazil	186,112,794	604.00	783.00	13.17	\$49	1.68%	n/a	n/a	n/a
Canada	32,805,041	978.00	1,079.37	10.90	\$308	1.01%	3.73	\$61.91	0.35%
China	1,306,313,812	1,650.00	1,890.00	29.50	\$19	1.56%	n/a	n/a	n/a
France	60,656,178	2,046.00	2,150.00	41.60	\$659	1.93%	10.06	\$119.58	0.47%
Germany	82,431,390	2,740.60	2,850.00	30.20	\$360	1.06%	9.92	\$82.30	0.35%
India	1,080,264,388	691.20	761.00	22.00	\$18	2.89%	n/a	n/a	n/a
Indonesia	241,973,879	257.60	277.00	2.53	\$10	0.91%	n/a	n/a	n/a
Italy	58,103,033	1,677.80	1,740.00	17.70	\$301	1.02%	5.05	\$41.87	0.29%
Japan	127 ,417 ,244	4,622.80	4,700.00	44.70	\$354	0.95%	13.10	\$69.69	0.28%
Korea (South)	47,912,000	680.00	817.00	20.70	\$342	2.53%	0.74	\$5.82	0.09%
Мехісо	106,202,903	682.00	740.00	3.09	\$26	0.42%	n/a	n/a	n/a
Russia	143,420,309	582,40	750.00	18.90	\$99	2.52%	n/a	n/a	n/a
Saudi-Arabia	26,417,599	250.60	301.00	25.40	\$731	8.44%	n/a	n/a	n/a
South Africa	44,344,136	212.80	231.00	3,40	\$74	1.47%	n/a	n/a	n/a
Turkey	695,099,69	302.80	299.00	8.00	\$122	2.68%	n/a	n/a	n/a
United Kingdom	60,441,457	2,124.40	2,230.00	51.10	\$811	2.29%	10.75	\$103.94	0.48%
United States	295,734,134	11,711.80	12,500.00	495.00	\$1,557	3.96%	27.46	\$54.96	0.22%
SOURCES Population GDP	The lrt ernational Inst	itute For Strategic Stu	dies, <i>The Miltary Bal</i>	The International Institute For Strategic Studies, <i>The Military Balance 2006 (Volume 106, Number 1 / June 2006</i>	, Number 1 / June	2006			13
Defence \$	2004 Data: World Ba Data: The Internation The International Inst	nk, World Developme nal Institute For Strateg itute For Strategic Stu	nt Indicators database jc Studies, <i>The Military Bai</i> dies, <i>The Military Bai</i>	2004 Data: World Bank, World Development Indicators database, Updated 15 July 2005, available at: http://www.worldbank Data: The International Institute For Strategic Studies, <i>The Military Balance 2006</i> (Volume 106, Number 17 June 2006) The International Institute For Strategic Studies, <i>The Military Balance 2006 (Volume 106, Number 17 June 2006</i>	, available at: http: ie 106, Number 1 . , <i>Number 1 / June</i>	//www.worldbank / June 2006) 2006	; org/data/countrydata/countrydata.html; 2005	/data/countryd	lata.html; 2005
Foreign Aid	Data for all countries at: http://www.oecd.o	Data for all countries derived from the OECD, "TABLE at: http://www.oecd.org/dataoecd/34/27/36418598.pdf	D, "TABLE 1: NET DI 118598.pdf.	Data for all countries derived from the OECD, "TABLE 1: NET DEVELOPMENT ASSITANCE 2005, Preliminary Data," <i>Aid</i> at: http://www.oecd.org/dataoecd/34/27/36418598.pdf.	NCE 2005, Prelimi		flows top USD 100 billion in 2005, available	10 billion in 200	95, available
Calculations	Foreign aid spending	ata Is unavallable, it Is per capita and as a %	of GDP was calculat	where noreign Aid data is unavaliable, it is because no data could be found on the country is a net reopiett of noreign Aid Foreign aid spending pericapita and as a % of GDP was calculated based on the most recent available data on ODA (2005	try is a net recipier scent available dat	nt of Foreign Aid a on ODA (2005	according to the vyond bank.) and comparable population (2004) and GDP	Wond Bank. population (2	004) and GDP
	Defence spending per capita (2004) and GDP (2005) data	r capita and as a % of)5) data.	GDP was calculated	Defence spending per capita and as a % of GDP was calculated based on the most recent available data on defence expenditures (2005) and comparable population (2004) and GDP (2005) data.	nt available data o	in defence exper	nditures (2005) ar	nd comparable	population
NOTE:	NOTE: There are 19 nation state members of the G-20. The 20th I	state members of the (NS ONLY.	There are 19 nation state members of the G-20. The 20th member, European Union, is not represented here JLATIONS ARE ESTIMATIONS ONLY.	ot represented he	ō			
THESE CALC	CLA HONG AT	CE ESTIMATION	NO CNEY.						

EXTRACTED FROM: Department of National Defence, *Making Sense Out Of Dollars 2005-2006 Edition* (March 2006), available at: http://www.admfincs.forces.gc.ca/financial_docs/Msood/2005-2006/intro_e.asp (last visited: June 15, 2006).

NATO DEFENCE BUDGETS IN US\$

The United States projected defence budget for 2005 is approximately US\$472.2B. For comparison purposes, United Kingdom's defence budget is estimated at US\$52.8B, France's at US\$54.8B, Germany's at US\$39.3B, Italy's at US\$32.4B, Canada's at US\$12.5B, Turkey's at US\$11.7B, and Spain's at US\$13.6B.

All budget amounts are based on the NATO definition of defence expenditures and may differ from the countries' national budget. However, the use of a unique definition allows for a comparative analysis.

For reference purposes, explanations of the acronyms/abbreviations used on the graph are defined as follows:

BEL - Belgium
BUL - Bulgaria
CAN - Canada
CZE - Czech Republic
DEN - Denmark
EST - Estonia

LUX - Luxembourg
NET - Netherlands
NOR - Norway
POL - Poland
POR - Portugal
ROM - Romania

FRA - France SLK - Slovak Republic

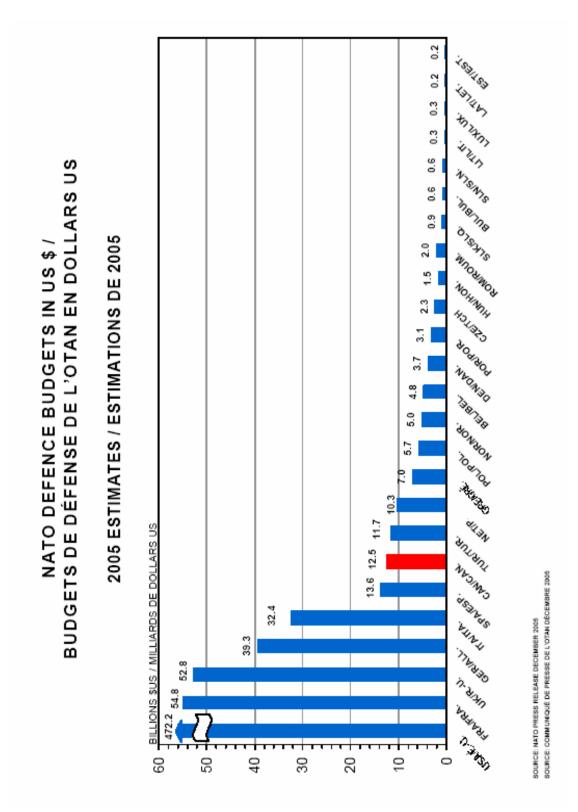
GER - Germany SLN - Slovenia GRE - Greece SPA - Spain HUN - Hungary TUR - Turkey

ITA - Italy UK - United Kingdom
LAT - Latvia USA - United States of America

LIT - Lithuania

Note that Iceland is not included as it does not have armed forces

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EXTRACTED FROM: Department of National Defence, *Making Sense Out Of Dollars* 2005-2006 *Edition* (March 2006), available at: http://www.admfincs.forces.gc.ca/financial_docs/Msood/2005-2006/intro_e.asp (last visited: June 15, 2006).

NATO DEFENCE EXPENDITURES AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT

It is estimated that Canada spent 1.1% of its Gross Domestic Product (GDP) on Defence in 2005. At the other end of the scale, it is estimated that the United States spent 3.7%, Turkey 3.2% and Greece 3.1%. While this ratio is commonly used to compare defence expenditures, it should be used with some caution because of many differences in various national measures of GDP.

DÉPENSES DE DÉFENSE DE L'OTAN EN POURCENTAGE DU PRODUIT INTÉRIEUR BRUT NATO DEFENCE EXPENDITURES AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT St. Jago NOHANH, 5 THE THE 4 KAPLAN STAN 4 THATTO 2005 ESTIMATES / ESTIMATIONS DE 2005 Ward i dento . Apolyon Sonson is. ight an KILKI, # Olegy to ф. 15_H 6 DON TO A WOOD WOOD SOURCE: COMMUNIQUÉ DE PRESSE DE L'OTAN DÉCEMBRE 2005 PAR MA SOURCE: NATO PRESS RELEASE DECEMBER 2005 % of GDP / % du PIB 3.7 A. Wall 9 S က 2 ಶ

APPENDIX VI

Current Manning Levels

CANADIAN FORCES PERSONNEL STATISTICS

As of May 1, 2006

REGULAR FORCE				
Full Strength Full Time Reserves	64,057 1,344			Distribution by
Regular Force	62,713	•	20,803	Capability Component Army (includes some BTL)
Basic Trg (BTL/SUTL)	7,730		9,955	
Others:	916		13,645	
(pending release, medically restricted	l, etc)		10,412	HR (majority of BTL)
Trained Effective Strength	54,067		2,890	Joint Ops
Advanced Training List (ATL)	945		1,645	MAT
Maternity Leave	108		1,208	IM
Parental Leave	676		2,155	Misc
Detention	8			
Available	52,330			

RESERVES		
	Strength	Units
Primary Reserve	22,032	228
Army	14,162	130
Navy	3,290	24
Air Force	1,697	29
Communications	1,379	23
Medical Group	987	15
Others	517	7
Cadet Instruction Cadre		
Total Current Personnel	6,764	
Rangers		
Total Current Personnel	4,448	
Supplementary Reserve	33,208	

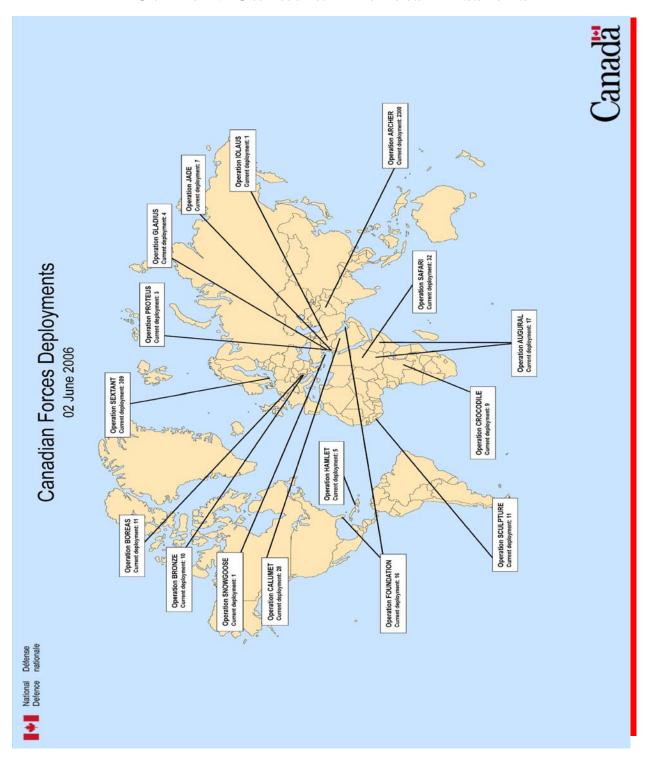
SOURCE: Directorate of Military Human Resource Requirements, National Defence

BTL - Basic Training List

SUTL - Subsidized University Training List

APPENDIX VII

Current Canadian Forces Missions



Source: Department of National Defence (current as of 2 June 2006)

ARABIAN GULF & SOUTHWEST ASIA

OP ARCHER - Afghanistan

2300

Canadian contribution to Operation ENDURING FREEDOM and the Campaign on Terrorism.

OP FOUNDATION – Tampa, Florida, United States and Bahrain 16

Goal is to maintain effective liaison with the Headquarters of US Central Command with regard to the campaign against terrorism.

OP IOLAUS – Iraq

1

United Nations Assistance Mission for Iraq (UNAMI)

BALKANS

OP BRONZE – Bosnia-Herzegovina

10

Canadian Forces (CF) contribution to NATO Stabilization Force (SFOR)

OP BOREAS - Bosnia-Herzegovina

11

Canadian Forces (CF) contribution to European Union Force (EUFOR) in support of EUFOR Liaison and Observation Teams (LOT) in Bihac within the Multinational Brigade Northwest.

CARIBBEAN

OP HAMLET 5

CF Contribution to the United Nations Stabilization Mission in Haiti Headquarters (MINUSTAH HQ). MINUSTAH's mission is to support the constitutional process in Haiti while helping to maintain a secure and stable environment.

MIDDLE EAST

OP GLADIUS – Golan Heights, Israel/Syria	4
United Nations Disengagement Observer Force (UNDOF)	4
OP CALUMET – Sinai, Egypt	20
Multinational Force and Observers (MFO)	28
OP JADE – Jerusalem	7
UN Truce Supervision Organization (UNTSO)	7
OP Proteus – Jerusalem	3
The Canadian Forces deployed a senior military staff officer to an international effort to assess and assist with reforms of the Palestinian Authority's security sector.	
OP SNOWGOOSE – Cyprus	1
UN Forces in Cyprus (UNFICYP)	
AFRICA	
OP CROCODILE – Democratic Republic of the Congo	9
UN Organization Mission in the Democratic Republic of the Congo (MONUC)	
OP SAFARI – Sudan	32
Canada's contribution to United Nations Mission in Sudan (UNMIS).	

OP AUGURAL – Darfur, Sudan

17

DND has been supporting Canada's efforts to help with the situation in the Darfur region of Sudan through the provision of material and advisory staff to the African Union (AU).

OP SCULPTURE - Sierra Leone

11

International Military Advisory Training Team (IMATT)

EUROPE / OTHER

OP SEXTANT 309

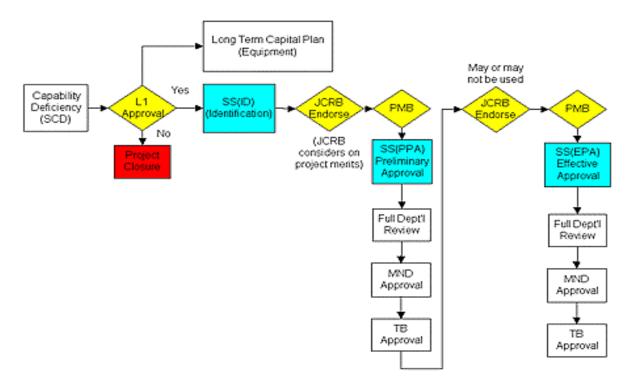
Canada currently commands Standing NATO Maritime Group 1 and is participating in Exercise BRILLIANT MARINER 2006 and Exercise STEADFAST JAGUAR 2006.

TOTAL 2,764

APPENDIX VIII

The Department of National Defence's Procurement Process

DND follows Treasury Board's procurement process through five phases of the Defence Management System (DMS). The diagram below shows the process through the first three steps.



SS(ID) - Synopsis Sheet (Identification) – the first phase in the life of a project where a formal description of a Statement of Capability Deficiency (SCD) is prepared, potential solutions are identified in broad terms and a rough-order-of-magnitude (or indicative) cost estimate is produced.

JCRB – A board of Level 1 executives (ADM or LGen VAdm ranks) co-chaired by the DM and CDS whose mandate it is to review SS(ID) proposals, challenge the issues and provide direction for the development of multi-purpose Canadian Forces (CF) capabilities including the Strategic Capability Investment Plan. For strategic projects, JCRB routinely develops a joint understanding of Concepts of

Employment/Operations, debates and reaches consensus for Statements of Operational Requirement and resolves issues of project scope at the corporate level.

PMB – Program Management Board – a board of representatives from each Level 1 organization that is chaired by the VCDS. Its mandate is to provide resource management oversight and direction at the project and activity level of the program. It supports the Vice Chief of the Defence Staff (VCDS) in coordinating the delivery of the Defence Services Program (DSP) as outlined in the department's annual Report on Plans and Priorities (RPP). It also gives action to decisions taken by the Deputy Minister (DM)/Chief of the Defence Staff (CDS) (at either the Defence Management Committee or Daily Executive Meeting).

SS(PPA) – Synopsis Sheet (Preliminary Project Approval (PPA). In this phase potential solutions that were identified the SS(ID) phase are more fully analyzed to produce an analysis of all the options and a ore refined indicative cost of the preferred option. In addition, an estimate is made of the cost of a project's Definition phase. This phase ends with the approval of the PMB, followed by Minister's approval (up to the level of his authority) or that of Treasury Board (if the cost exceeds Ministerial approval authority. Ministerial or Treasury Board approval (whichever applies) is authority to initiate a project in terms of its intended operational requirement, including approval of the objectives of the project Definition phase and any associated expenditures. Sponsoring departments submit for PPA when the project's complete scope has been examined and cost, normally to the indicative level, and when the cost of the project definition phase has been estimated to a more precise (or substantive) level.

SS(EPA) – Synopsis Sheet (Effective Project Approval (EPA)). At this phase, the specific requirements of the approved option and the scope (equipment, training, logistic components including initial spares etc) of the overall project have been defined. This results in a Project Implementation Plan (PIP) and a substantive cost estimate for the implementation of the project. Approval is once again given by PMB for submission to the Minister and/or Treasury Board for approval. This constitutes Effective Project Approval which covers the objectives (project baseline), including the Cost Objective, of the project implementation phase and provides the necessary spending authority to proceed with implementation.

The final two phases of the process are:

Implementation – This phase includes all the project management activities which follow EPA i.e. contracting with suppliers for the required equipment and services. The PIP is executed in detail by the Project Management Office. The equipment is produced and delivered, or the service rendered, to DND. This duration of this phase is dependent on a number of factors like number of units, their complexity, their off-the-shelf availability (if applicable), supplier capacity and so on.

Close-out – This phase includes the formal acceptance of the final deliverables, the handing over of the system to DND's end users and the submission of a project completion report.

APPENDIX IX

Departmental Expenditure Authorities

Source: Treasury Board Secretariat, "Project Approval," available at: http://www.tbs-sct.gc.ca/pubs_pol/dcgpubs/TBM_122/chap2-1_e.asp.

Note: This is a compilation of authority limits provided specifically by Treasury Board to individual ministers. This compilation is provided for information only.

Department/Agency	Real Property		Information Technology		All Other Projects	
	General	Special	New	Replacement		
Agriculture and Agri-Food Canada Prairie Farm Rehabilitation Administration	\$5M	\$15,000	\$5M	\$10M	\$1M	
Canada Customs and Revenue Agency	Exempt					
Canadian Food Inspection Agency	\$5M	n/a	\$2M	\$5M	\$1M	
Canadian Heritage	\$1M	n/a	\$2M	\$5M	\$1M	
Canadian International Development Agency	\$1M	n/a	\$2M	\$5M	\$1M	
Canadian Security Intelligence Service	\$1M	n/a	\$2M	\$5M	\$1M	
Canadian Space Agency	\$5M	n/a	\$5M	\$5M	\$5M	
Citizenship and Immigration Canada	\$1M	n/a	\$5M	\$10M	\$1M	
Correctional Service Canada construction projects	\$1M	\$18M	\$2M	\$5M	\$3M	
Department of Foreign Affairs and International Trade - Chanceries - Official residences	\$1M	\$30M \$3M	\$2M	\$5M	\$1M	
Environment Canada	\$2.5M	n/a	\$2M	\$5M	\$2.5M	
Fisheries and Oceans Canada	\$20M	n/a	\$2M	\$5M	\$20M	
Health Canada First Nations and Inuit Health Branch	\$1M	\$2M	\$5M	\$10M	\$1M	
Human Resources Development Canada	\$1M	n/a	\$5M	\$10M	\$1M	
Indian and Northern Affairs Canada	\$15M	n/a	\$2M	\$5M	\$1M	
Industry Canada	\$1M	n/a	\$2M	\$5M	\$1M	
National Defence construction projects	\$1M	\$60M	\$30M	\$30M	\$30M	
National Library of Canada	\$1M	n/a	\$2M	\$5M	\$1M	
National Research Council Canada	\$5M	n/a	\$2M	\$5M	\$5M	
Natural Resources Canada	\$5M	n/a	\$5M	\$10M	\$5M	

The Government's No. 1 Job

Parks Canada New National Parks, National Marine Conservation Areas, National Historic Sites	\$10M	\$15M	\$1M	\$3M	\$1M
Public Works and Government Services Canada office space	\$5M	\$30M	\$2M	\$5M	\$1M
Royal Canadian Mounted Police detachments and subdivisions	\$3M	\$5M	\$5M	\$10M	\$3M
Statistics Canada	\$1M	n/a	\$5M	\$10M	\$1M
Transport Canada	\$15M	n/a	\$15M	\$15M	\$15M
Veterans Affairs Canada	\$1M	n/a	\$2M	\$5M	\$1M
All other departments and agencies	\$1M	n/a	\$1M	\$3M	\$1M

In 1996, the Treasury Board granted the Minister of National Defence authority to approve the expenditure of funds on capital equipment projects up to \$30 million and construction projects up to \$60 million. The Minister has delegated \$5 million expenditure authority to the Deputy Minister and three other officials: the Assistant Deputy Ministers for Materiel, Information Management, and Infrastructure and Environment. All other Level One managers have expenditure authority up to \$1 million.

The Defence Planning and Management Process

The current Defence Planning and Management process is based on best practices in NATO and the ABCA (America, Britain, Canada and Australia) group of countries, along with best practices from private and public sector and the Treasury Board 'Results for Canadians' policy. It was designed in 2002, in response to a number of government studies outlined above. The process was supposed to be more agile, transparent and responsive to capability planning. There are three planning horizons:

- Horizon One short term (1-4 years) focussed on maintaining and enhancing current capabilities
- Horizon Two medium term (5-10 years) focussed on enhancing or replacing existing capabilities
- Horizon Three long term (10-30 years) focussed on acquiring new capabilities

DND has also established a top-down process for the review of existing capabilities and the acquisition of new capabilities. DND builds a program from the existing strategic and policy guidance, plus assessment of existing capabilities and threats. This is done at the Joint Capabilities Review Board (JCRB), attended by senior military appointments in NDHQ. This produces the Strategic Capabilities Investment Plan (SCIP), with its equipment annex.

The JCRB determines the big requirements first and then moves to medium and smaller projects as time and money permit. There are many trade-offs along the way as the recommendations make their way through a further three levels of review before they get to the Minister, who will often produce his own questions and challenges.

Once identified, individual projects move through successive risk-reduction phases – Initial Definition (ID), Preliminary Project Approval (PPA) and then Effective Project Approval (EPA). Operational sponsors, such as the Navy, Army or Air Force will lead a project until Effective Project Approval, at which point, responsibility for project execution then shifts to the ADM Materiel for equipment projects or ADM IE for infrastructure projects.

DND is never alone in pursuing its projects. In early to mid-stages of a project until Effective Project Approval, DND project staffs work with the Privy Council

Office on Major Crown Projects that, by definition, require Cabinet approval. DND also works with Treasury Board for approvals and risk management.

APPENDIX X

The Utility of Canada's Victoria Class Submarines

EXCERPTED FROM House of Commons Standing Committee on National Defence and Veterans Affairs, "CHAPTER 2: A GOOD DEAL FOR CANADA?" in *Procurement of Canada's Victoria-class Submarines* (April 2005). Available at:

http://www.parl.gc.ca/infocomdoc/Documents/38/1/parlbus/commbus/house/reports/nddnrp01/0 3-cov2-e.htm.

Arguments Supporting View That the Acquisition Was a Good Deal

Almost four years after the 1994 Defence White Paper more or less gave the green light for the replacement of the Oberons and three full years after Mr. Collenette made his presentation to the Cabinet in 1995, the Cabinet finally approved the acquisition of the Upholders. Unfortunately, Canadians are used to long delays in government decisions concerning new equipment for Canada's military, but the three year delay in the Cabinet decision process experienced by the submarine project is one of the worst examples. It is surpassed perhaps only by the delays in the replacement of the Sea King helicopters. It should not be forgotten that by 1995, almost a decade's worth of planning and preparations had taken place before the submarine project even reached the stage where contracts were signed. Whether one agrees or not with the need for such equipment, it is frustrating to see so much time and effort deployed to prepare the acquisition of a piece of equipment only to see a question of political timing determine when Canadian military personnel will be able to use it. In any case, the Committee hopes that the procurement process will be shortened and made more efficient by the measures which the Department's Assistant Deputy Minister (Materiel), Alan Williams, told us have been taken. 137

As for the relevance of the capabilities provided by the submarines in a rapidly changing world, the protracted route taken to reach a decision on the acquisition of the Upholders raises a number of questions about the decision-making process. The Special Joint Committee and the 1994 Defence White Paper gave qualified support for maintaining Canada's submarine capability, as long as it was done at

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¹³⁷ Evidence, Meeting No. 21, February 17, 2005.

the lowest cost possible. 138 However, there was still hesitation on the part of government to go ahead with the acquisition process more because of the possible effects on public opinion than because of any changes in the international context. Meanwhile, the Navy appeared to be determined to maintain a submarine capability at any cost. If this meant taking over the British Upholders, whatever their qualities and deficiencies, this was viewed as the only option. As Dr. Richard Gimblett, Research Fellow at Dalhousie University's Centre for Foreign Policy Studies, pointed out, a navy with many different types of platforms (surface ships, submarines, coastal patrol ships) gives the government a variety of options whenever Canada is called upon to contribute to multinational operations dealing with, for example, an international security crisis. 139 In some types of operations, such as the enforcement of sanctions imposed by the United Nations on a rogue state, surface warships are ideal for the interception and inspection of cargo ships while in others, stealthy surveillance by submarines of naval units posing a threat to coalition forces would be more suitable. The wide choice of capabilities made available is in keeping with the commitment stated in the 1994 Defence White Paper to provide multi-purpose combat-capable forces.

Thus, some argue that despite the time it took to obtain Cabinet approval and the delays the project subsequently experienced, the acquisition of the four Upholder class submarines is a good buy for Canada. The former ministers of National Defence who testified before the Committee and others maintain that for a country like Canada with a long coastline and dependent on maritime transport for an important portion of its international trade, providing Canadian maritime forces with multiple capabilities is a necessary step. Submarines are viewed as a versatile element of maritime forces because of their ability to carry out surveillance operations in a stealthy manner, whether to monitor the presence of foreign submarines close to Canadian waters or the activities of foreign fishing boats and other vessels potentially harmful to Canada's resources and interests. They are also considered the most effective platform for anti-submarine operations because they operate in the same environment as the intruding submarine. The mere existence of a submarine fleet is seen as part of an effective deterrence against any activities in Canadian waters, including those in the north, by some countries wishing to challenge Canadian sovereignty and hamper Canada's ability to protect its natural

¹³⁹ Evidence, Meeting No. 20, February 15, 2005.

¹³⁸ The parliamentary input was provided by the majority report of the Special Joint Committee on Canada's Defence policy, although as noted in Chapter One, the Bloc Québécois issued a dissenting report. The Special Joint Committee of 1994 was composed of Members of the House of Commons from the Liberal, Reform, and Bloc Québécois parties and Liberal and Progressive Conservative Senators.

resources and environment. The various occasions when submarines have been used in the past to monitor and gather evidence of overfishing or other illegal activities by foreign boats, such as Operation Ambuscade in 1993 where an Oberon class vessel located U.S. scallop draggers in Canadian waters in Georges Bank and monitored their activities, are given as proof of the value of submarines in peacetime surveillance.

The fact remains that submarines are essentially combat capable systems and as defence analysts such as Martin Shadwick and Richard Gimblett have pointed out, they can play an important role in protecting Canadian naval ships participating in multinational security operations far from Canada. In the past, multinational naval operations in areas such as the Arabian and Adriatic seas, including those supporting peacekeeping operations, have monitored the presence of foreign submarines which posed a potential threat to or hindered manœuvres by allied ships. Even if Canada's submarines are not part of a multinational operation, some experts have noted that they could be used sometime in the future by Canadian, U.S. and other allied air and naval forces to train in anti-submarine warfare prior to the deployment by the coalition task force to a world trouble spot. Indeed, some of the witnesses referred to messages of support from the U.S. military for Canada's acquisition of submarines given the possibility of their availability for training exercises with U.S. naval forces. The U.S. Navy operates nuclear powered submarines but, according to many defence analysts, it recognizes that dieselelectric submarines can pose a serious threat to its surface fleet, especially in littoral operations. Training exercises with foreign diesel-electric vessels are therefore considered of great value in honing the skills of the crews of patrol aircraft and surface ships. The proponents of the submarine acquisition point to the value of submarines in anti-submarine warfare as well as the firepower they can bring to bear during anti-shipping operations as proof that submarines are a necessary element of a balanced naval fleet. The fact that many countries, big and small, throughout the world operate submarines has been used to support this argument. By the same token, the existence of so many submarines around the world is highlighted in order to illustrate the serious threat Canadian and other allied surface ships could face during multinational operations. 140

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¹⁴⁰ Anti-submarine warfare continues to be an important NATO capability as illustrated by the exercise Noble Marlin 05 held in March 2005 in the Mediterranean involving ships, submarines, and aircraft of 10 NATO countries including Canada.

For some of those who accept the premise that submarines are an important element of any multi-purpose combat-capable force, obtaining such a capability at a favourable price is proof that it was a good buy. The lease-to-buy arrangement identified in the contract signed by Canada and the United Kingdom on July 2, 1998 was expected to cost no more than \$750 million, later adjusted to \$812 million to take inflation into account. Thus, for some \$800 million, Canada obtained four relatively new Upholder class submarines with an advanced design which some defence experts and naval officers compare favourably with similar submarines currently operated by navies around the world. The Upholders have sufficient range to operate for long periods of time in or near Canadian waters or to undertake long deployments in the world's oceans to reach and operate in distant trouble spots. As Mr. Gimblett pointed out, some of the other types of diesel-electric submarines available on the market today are more suited to coastal operations and, compared to the Upholders, would not meet many of Canada's requirements in terms of submarine operations.

The supporters of the acquisition point out that the significant submarine capability provided by the Upholders was obtained at a fraction of the costs Canada would have incurred if it had purchased new submarines from a foreign shipyard or had contracted a Canadian company or a consortium of companies to construct them in this country. The option chosen by Australia which involved the selection of a foreign hull design, in this case Swedish, the construction of the new vessels in Australia, and the design and manufacture by Australian companies of the electronic and other equipment installed in the submarine, with all the integration problems this entailed, has often been cited during the Committee's meetings on the acquisition. As in Canada, Australia's acquisition of submarines is very controversial, but for different reasons. Australia has constructed six new Collins class submarines at a total cost of over A\$5 billion, but the planned expenditures for 2003-2004 included another A\$773.7 million for additional work to correct the shortcomings identified in initial trials and in an Australian government report. 143 Indeed, Australia is also receiving help from the U.S. Navy to rectify some of the problems. Thus, Australia has acquired six new submarines at a cost of almost A\$1

¹⁴¹ The costs of some submarine-related projects have recently been added to the acquisition costs and Treasury Board has approved a new ceiling for the Submarine Capability Life-Extension project of \$897 million, as discussed later in this chapter

¹⁴² Evidence, Meeting No. 20, February 15, 2005.

¹⁴³ The first Collins class submarine was commissioned in 1996 and the sixth was commissioned in 2003, but it is only in March 2004 that the Royal Australian Navy accepted the "operational release" of the six submarines. This means that the submarines can be used operationally, although upgrades to correct some deficiencies are being carried out.

billion each while Canada acquired four relatively new vessels for \$800 million. ¹⁴⁴ For the advocates of the Upholder acquisition, the low costs of the purchase compared to the significant sums being paid by Australia and other countries to build new submarines from scratch highlights the advantages of this purchase. The problems encountered by the Australians have also been used to illustrate the potential pitfalls of constructing new submarines and the complexity of submarine technology, if only to show that Canada's submarine problems are not unique.

The acquisition of the Upholders is viewed favourably by its advocates even though these submarines have a very limited ability to operate under large expanses of ice in Canada's northern waters. When the Canadianized Victoria class vessels become fully operational, these submarines will bolster to some extent the limited Canadian military presence in Canada's Arctic waters. This could be especially important in the Northwest Passage where Canadian sovereignty could be seriously challenged in the coming decades by countries which view the passage as an international sea lane. Shipping through the Passage is expected to increase in the future since the effects of global warming will likely reduce the extent of the ice blocking navigation and the period of time when it does so. While diesel-electric submarines like the Canadianized Victoria class can perhaps travel submerged under the edges of the ice cover, they cannot venture too far under the polar ice cap without running ever-increasing risks. Much research has been undertaken, notably here in Canada, on fuel cells and other sources of energy which could be used for Air Independent Propulsion (AIP) technology in submarines. Vice-Admiral (Retired) Cairns confirmed that AIP research was undertaken in the early 1990s when the Navy was again looking for a replacement for the Oberons after the cancellation of the proposed purchase of nuclear-powered submarines. 145 However, even if AIP technology was developed to a point where it could be installed in the Canadianized Victoria class submarines, something which might be considered in the years to come, the vessels would still have a very limited ability to operate safely while submerged in waters covered with ice. 146

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¹⁴⁴ The value of the Australian dollar is currently almost on par with the Canadian dollar.

¹⁴⁵ Evidence, Meeting No. 6, November 1, 2004.

¹⁴⁶ The installation of an air independent propulsion system might involve cutting the hull of a submarine in order to add a plug or extension of the hull containing a fuel cell or similar power source and welding the hull back together again. Tests and similar installations done in some countries have demonstrated that these modifications are feasible.

Arguments Against the Acquisition of Submarines

While some consider the limited ability of the Victoria class submarines to undertake under ice operations and the possibility of some improvements in under ice capabilities with the installation of an AIP system sometime in the future as an advantage, others view this as another example of the questionable value of these submarines. They remain unconvinced that Canada needs submarines and their limited under ice capabilities, with or without AIP technology. In any case, they do not consider submarines an important asset for asserting Canadian sovereignty in northern waters. The critics argue that the assertion of sovereignty requires a visible military presence in the Canadian North and see little advantage in Canada having submarines which, in any case, would operate most of the time submerged and out of sight. They believe that visible platforms like surface ships and aircraft are a more effective display of this country's capacity to monitor activities in Canadian waters, although there is concern that the Canadian Forces currently do not have enough resources in northern regions.

The advocates of the acquisition respond by noting that since Canada operates submarines, it is therefore advised by the navies of other countries whenever their submarines must transit in or navigate close to Canadian waters. Such notification is carried out in order to reduce the risks of collisions between Canadian and other submarines. The advocates argue that such an arrangement helps Canada to assert its sovereignty because it is made aware of the presence of any foreign submarine in its waters. However, some of the critics are not convinced that Canada should be part of the club of countries operating submarines simply to be informed about the deployment of foreign submarines close to our waters. Besides, in their view, new technology including uninhabited aerial vehicles (UAVs) could provide improved surveillance capabilities over the wide expanses of Canadian territorial waters for perhaps less than the operating and acquisition costs of the four submarines. However, some defence analysts such as Professor Shadwick cautioned that UAV technology is still in the early development stages and that more work needs to be done to improve their surveillance capabilities.

In any case, the critics of the acquisition project question the extent to which foreign submarines pose a threat to Canada's interests, either close to Canadian shores or in distant areas where Canadian ships may be operating as part of multinational forces. As Peter Langille asserted, there may have been a number of

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¹⁴⁷ Evidence, Meeting No. 19, February 10, 2005.

Soviet submarines close to or possibly in Canadian waters during the Cold war, but the submarine threat is not as significant today. Besides, the critics of the acquisition believe that surface ships and maritime patrol aircraft have sufficient anti-submarine warfare capabilities to detect any submarines intruding in Canadian waters or in the zone of operation of a multinational naval force. In their opinion, Canada does not need its own fleet of submarines to detect intruders in Canadian waters while multinational naval forces can rely if necessary on submarines from other allied countries to provide protection. They also find wanting the evidence brought forward to demonstrate the value of submarines in the surveillance of the activities of foreign fishing and other boats in Canadian waters. The critics conclude that it would have been possible for Canada to decide not to replace its old Oberons and thus avoid all the implications of maintaining a submarine capability including the operating costs in addition to those for the surface fleet and the complex infrastructure, including a training system, needed for their safe operation. Some critics are willing to argue that in order to cut its losses so to speak, Canada should abandon submarine operations altogether and get rid of the four submarines acquired from the United Kingdom.

Some criticize the submarine acquisition project because they have a different perspective of what Canada's defence priorities should be. They question the purchase of submarines when so many demands have been placed on the Canadian Forces during the last decade in terms of participation in international peacekeeping missions. Some if not all of the funds earmarked for the submarine acquisition, albeit not as significant as those which would have resulted from the construction of new vessels in Canada, could have been better spent, they argue, on the deployment of additional Canadian soldiers for peacekeeping operations and on the support provided to these operations by air and naval units. Other critics suggest that buying additional combat vehicles or heavy lift transport aircraft vital to the success of peacekeeping operations would have better served Canada's interests and those of the international community than the acquisition of submarines. A number of critics also argue that too much was cut from defence spending during the 1990s and that this put the land, air, and naval capabilities of the Canadian Forces at risk. From their point of view, the debate should not be on whether or not Canada would have been better served if it had purchased additional armoured personnel carriers instead of submarines. The debate should rather be on whether or not defence spending is sufficient to provide the Canadian Forces with

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¹⁴⁸ Senate Standing Committee on National Security and Defence, *Evidence* (February 15, 2005), available at: http://www.sen-sec.ca.

all the capabilities they believe necessary to fulfil their commitments and if the policy guidelines are clear enough to guide their selection of equipment.

APPENDIX XI Deployment of DART to Pakistan

Op PLATEAU

Disaster Assistance Response Team **Canadian Forces**

Deployment to Northern Pakistan

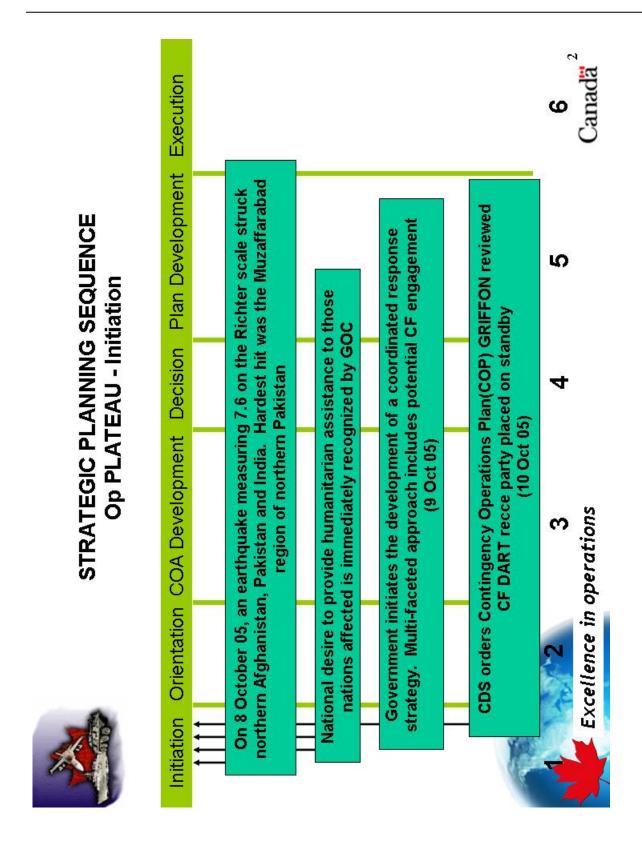
October/November - 2005

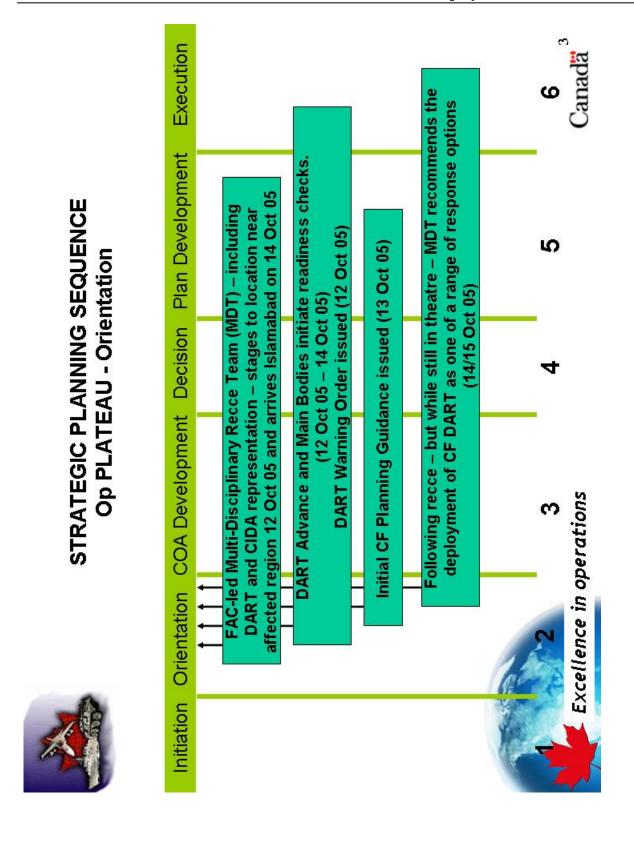
(Crisis Response Planning Process)

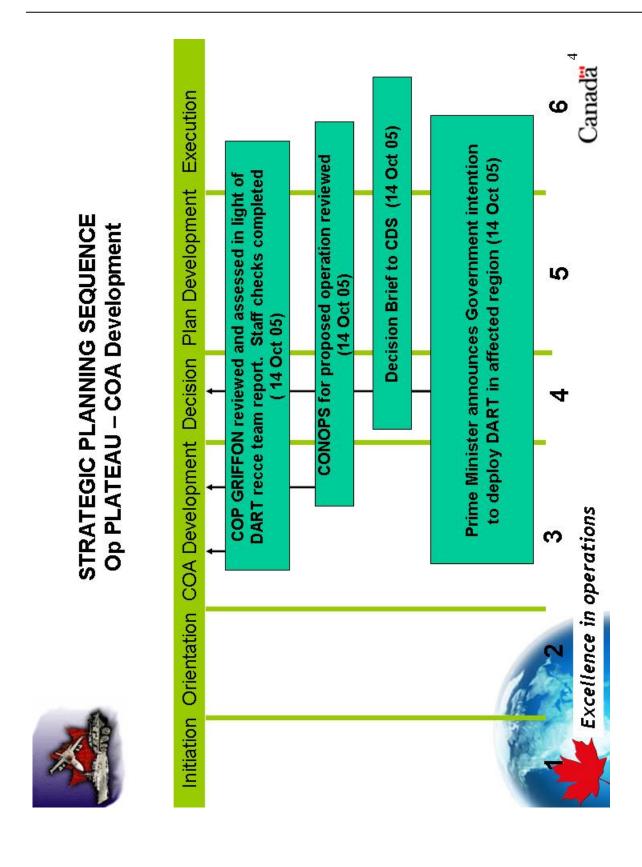


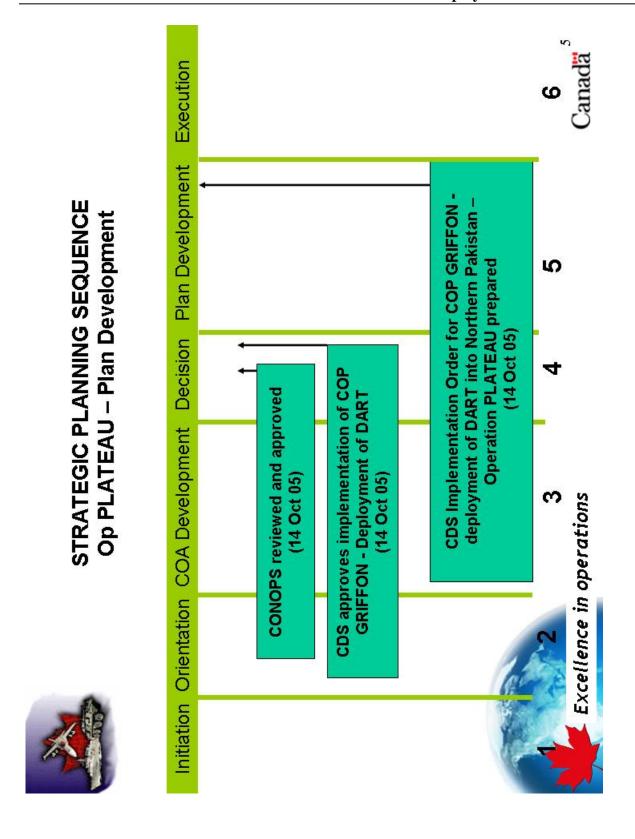


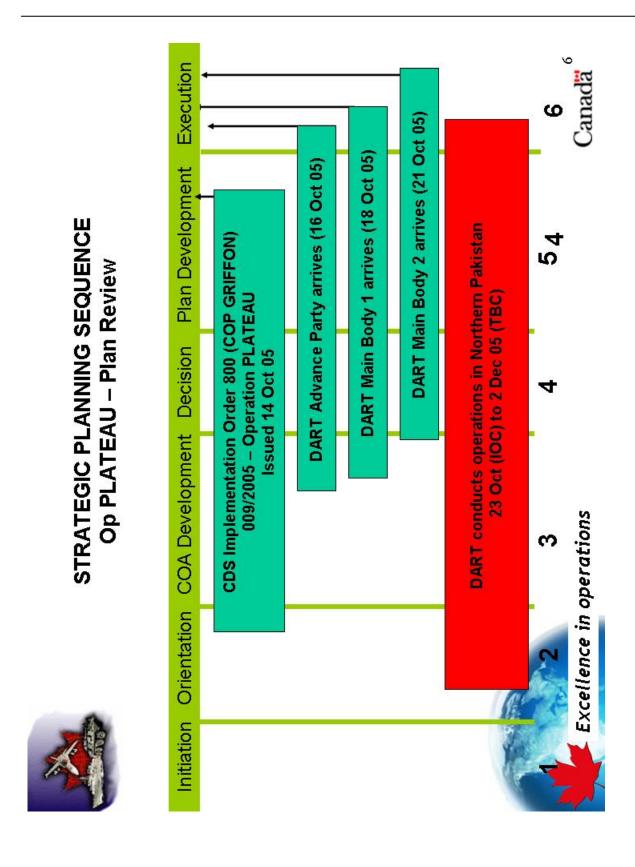












Conclusions



- CDS Implementation Order took less than five days indication of a potential mission to the issuing of the The CF staff planning process – from the initial (9 Oct to 14 Oct 05)
- early are critical to securing the situational awareness In a humanitarian disaster, "boots on the ground" required to support the decision-making process.
- stakeholders not only senior staff at FAC, CIDA and DND but also CF elements that would be required to Key to success was early engagement of all execute the mission.



Canada

APPENDIX XII

Glossary

Here are several acronyms which appear in the report above which might require clarification:

ANSTATS Annual statistics

ATL Advanced Training List AWOA Absent Without Authority

BTL Basic Training List CC Component Command

D Cdts Director Cadets

Director Accounts Processing, Pay and

DAPPP Pension

Director Human Resource Information

DHRIM Management

DPGP Director Personnel Generation Policy

DPGR Director Personnel Generation Requirements

DRES Director Reserves

File Table Protocol Ad-Hoc Supplementary

FTP Ad-Hoc SRR
GOL
General Officer List
H Svcs Gp
HR
Health Services Group
HUman Resources

IM Information Management

MAT Materiel

OPI Office of Primary Interest

Production Attrition Recruiting Retention

PARRA Analysis

PSR Projected Status Report

RPSR Revised Pay System for the Reserve SPHL Service Personnel Holding List SUTL Subsidized University Training List

14 Wing: The Air Force wing based at Greenwood NS. This wing provides both maritime patrol and search and rescue capabilities to Canada's Atlantic region.

Aircraft Update: A major modernization of aircraft systems designed to replace obsolete systems and/or add new capabilities. Used to extend the life or "time in service" of the aircraft as an alternative to replacement.

Antonov AN-124: Large strategic transport aircraft dating from the Soviet era. Several are now operating commercially and are occasionally chartered by the CF in support of CF overseas operations.

Arcturus: The Canadian name for a Lockheed P-3 not fitted with the antisubmarine warfare equipment. Used for training and maritime surface patrol. The remaining 2 of these aircraft will be taken out of service with the CF in 2007.

Arleigh Burke-class Destroyer: The Arleigh Burke-class is considered to be the U.S. Navy's most capable and survivable surface combatant. It was the first U.S. Navy ship designed to incorporate shaping techniques to reduce radar cross-section to reduce their detectability and likelihood of being targeted by enemy weapons and sensors.

Asymmetric Cuts: Refers to the fact that, for various reasons, the Air Force was required to provide a significantly larger percentage of the personnel cuts than the other two services.

Asymmetrical Threat: Describes a condition where the opposing force appears disproportionately larger or smaller than your own. Commonly used today when talking about the considerable conventional military might of the United States verses the apparently modest and mostly invisible capability of al Qaeda and the like.

Aurora: The Canadian name for the Lockheed P-3 maritime patrol aircraft. Used for anti-submarine warfare and maritime surface patrol. 18 of these aircraft are in service with the CF.

Auxiliary Oiler Replenishment ships (AOR): These ships replenish Task Groups at sea with food, munitions, fuel, spare parts and other supplies. They also have large medical and dental facilities. Using their large capacity and extended range, our Task Groups can stay at sea for longer, and go further.

Base: The home location for Canadian Forces units. Usually made up of infrastructure (housing, hangers, garages, runways, etc.) and an organization designed to provide a full range of support services to the unit(s) housed there.

Blue water navy and brown water navy: Blue water Navy - a navy that has a credible and balanced (deep ocean) power projection capability.

Brown Water Navy - is a term in American naval jargon referring to actions in near shore and river environments. Small <u>gunboats</u> and <u>patrol</u> craft are the ships used by a brown water force.

Boeing 707: An obsolete airliner no longer in service with the CF. Replaced by the A-310 Airbus (Polaris).

Bow-wave: The <u>wave</u> that forms at the bow of a <u>boat</u> when it moves through the water. The size of the bow wave is a function of the speed of the boat, ocean waves, and the shape of the bow. A boat with a large <u>draft</u> and a blunt bow will produce a large wave, while boats that <u>plane</u> over the surface of the water or boats fitted with a <u>bulbous bow</u> will create smaller bow waves. In the context of this report, the "bow wave" is a large accumulation of costs over time that results from a continually deferring infrastructure maintenance.

Buffalo: Twin engine light transport aircraft used by the CF for search and rescue on the mountainous west coast. 6 of an original 15 remain in service pending the purchase of a replacement.

Canada Command: Canada Command is the operational headquarters from which the CF will conduct routine domestic operations treating Canada as one area of operations. Canada Command will eventually command six regional commands throughout Canada. The creation of Canada Com means that for the first time, a unified and integrated chair of command at the national and regional levels will have the immediate authority to deploy maritime, land and air assets in their areas of responsibility in support of domestic operations.

Canada Command will be headquarters in Ottawa but will not be co-located with National Defence Headquarters at 101 Colonel by Drive.

Canadian Forces: The armed forces of Her Majesty raised by Canada and consisting of one Service with called the Canadian Armed Forces.

CANFORGEN: Canadian Forces General Order

Canadianizing: A coined term that refers to the program to replace equipment aboard British-built VICTORIA-class submarines with equipment already in use in, or compatible with, Canadian naval vessels.

CC-130 Hercules: Four-engine military cargo aircraft in service with the Canadian Forces since the 1960's. 32 of these remain in the CF inventory.

CEFCOM: Under the new CF structure, Canadian Expeditionary Forces Command (CEFCOM) is the unified command that is responsible for all Canadian Forces (CF) international operations, with the exception of operations conducted solely by Special Operations Group (SOG) elements. Similar to the integrated chain of command put in place under Canada Command (Canada COM), the CF's operational command headquarters responsible for domestic operations, CEFCOM will bring together under one operational command the maritime, land and air force assets to conduct humanitarian, peace support or combat operations wherever they are required internationally. Headquartered in Ottawa, CEFCOM will also be responsible for setting the standards for integrated training and final certification of assigned forces – ensuring that all units and personnel selected to conduct overseas duties are fully trained and ready to do so

CH-148: The Canadian designator for the new maritime helicopter that will eventually replace the Sea King.

Challenger: Small passenger jet aircraft. Used by the government's executive flight service for the transport of senior officials (4 aircraft) and by the Air Force (2 aircraft) for light transport and medical evacuation. All aircraft are operated by the Air Force and maintained by Transport Canada.

Chief of Defence Intelligence: A military officer at the rank of Major-General or Rear Admiral whose responsibility is to provide intelligence services to DND and the CF in support of defence planning and military operations and to support other government departments as it relates to the security of Canada.

Chief of Defence Staff: The Chief of the Defence Staff has primary responsibility for command, control and administration of the Canadian Forces and military strategy, plans and requirements.

The Chief of the Defence Staff is appointed by the Governor-in-Council on the advice of the <u>Prime Minister</u>. The CDS also has a special relationship to the <u>Governor General</u> who, as the Queen's representative in Canada, exercises virtually all of her powers under the Constitution and, therefore, serves as Commander in Chief of the Canadian Forces. Thus there is in formal terms, though not in practice, a direct "line of command" from the Head of State through the CDS to all the officers who hold the Queen's Commission and, through them, to all members of the Canadian Forces.

The Chief of the Defence Staff is charged with the command, control and administration of the Canadian Forces and advises the Minister on all these matters - including military requirements, capabilities, options and the possible consequences of undertaking or failing to undertake various military activities. Whenever required, the Chief of the Defence Staff advises the Prime Minister and Cabinet directly on major military developments. The CDS is thus the senior military advisor to the Government as a whole.

The Chief of the Defence Staff implements government decisions involving the Canadian Forces by issuing appropriate orders and instructions. The CDS is accountable to the Minister for the conduct of CF activities, as well as for the condition of the Forces and their ability to fulfill the military commitments and obligations undertaken by the government.

Chinook: Large, twin-rotor helicopter typically used to transport equipment, troops and supplies around a theatre of operations. No longer in the CF inventory.

CFB - Canadian Forces Base: See "base" above.

Coastal Defence Vessels: Are multi-role minor war vessels whose primary mission is coastal surveillance and patrol. Coastal surveillance involves general naval operations and exercises, search and rescue, law enforcement, resource protection and fisheries patrols. The ships are very flexible -- inter-changeable modular payloads can be fitted for route survey, bottom object inspection and mine hunting and countermeasure.

Command and Control Capability: The ability to collect, analyze and communicate information, plan and coordinate operations, and provide the capabilities necessary to direct forces to achieve assigned missions.

Cormorant: The new search and rescue helicopter acquired by the CF over the past five years. 15 are in service with the CF based at Comox, BC, Trenton, ON, Greenwood NS and Gander NFLD.

Counter-intelligence: Those activities which are concerned with identifying and counteracting the threat to security posed by hostile intelligence services or organizations or by individuals engaged in espionage, sabotage, subversion or terrorism.

Coyote: Light armoured reconnaissance vehicle.

DART – **Disaster Assistance Response Team:** A military organization designed to deploy rapidly anywhere in the world to crises ranging from natural disasters to complex humanitarian emergencies. It:

- responds rapidly, in conjunction with national and regional governments and non-governmental agencies, to stabilize the primary effects of an emergency or disaster;
- provides purified drinking water and medical aid to help prevent the rapid onset of secondary effects of a disaster; and
- gains time for the deployment of national and international humanitarian aid to facilitate long-term recovery in a disaster-stricken community.

Datasets: A logically meaningful grouping or collection of similar or related data. Data having mostly similar characteristics (source or class of source, processing level and algorithms, etc.).

DCDS: Deputy Chief of the Defence Staff Responsible to the Chief of the Defence Staff – Plan, direct and support DND and CF operations (force employment – national and international); The mission of the DCDS Group is to excel in the conduct of contingency operations through Joint Force Planning, Generation, Enhancement and Development

Destroyer: A destroyer is a fast and manoeuvrable yet long-endurance <u>warship</u> intended to escort larger vessels in a task or <u>battle group</u> and defend them against

smaller, short-range attackers (originally <u>torpedo boats</u>, later <u>submarines</u> and aircraft).

Defence Capabilities Plan: a plan to give the military what it will need to conduct the missions the Government assigns it. It is intended to be a roadmap for acquiring the equipment required over the decade.

Defence Policy Statement: This document articulates the Defence segment of the Canada's global engagement. It was released publicly in April 2005.

DIR (**Defence Intelligence Review**): The DIR is directly linked to the command and control requirement. The DIR was a recent review of all aspects of defence intelligence to increase the capacity and capability of the National Defence Command Centre (NDCC) and enhance defence intelligence in general. The review reflects today's complex operating environment, which requires improved situational awareness and net-centric responses. The DIR has also highlighted the need to better co-ordinate intelligence activities across departmental and functional components.

Environment: This term designates the naval, land and air components of the Canadian Forces.

Expenditure Review Committee: The Committee was a cabinet-level committee created in 1993 responsible for reviewing all federal spending. It was chair by the President of the Treasury Board and composed of senior government Ministers. It was designed to ensure that government spending remains under control, is accountable, is closely aligned with the priorities of Canadians, and that every tax dollar is invested with care to achieve results for Canadian

Fiscal Year: The financial or accounting year of an organization, which may or may not coincide with the calendar year. An organization may find it convenient to end its accounting year at a time when inventory stocks are down. The fiscal year of Canada's federal and provincial governments runs from April 1 to March 31.

Frigate: A warship intended to protect other warships and <u>merchant marine</u> ships and as <u>anti-submarine warfare</u> (ASW) combatants for amphibious expeditionary forces, underway replenishment groups, and merchant <u>convoys</u>. Canada has 12 general purpose frigates of the HALIFAX-class. Incorporating many technological advances, including an integrated communications system, a command and control

system, and a machinery control system, these vessels' weapons, sensors and engines form a formidable platform of defensive and offensive capabilities. They are quiet, fast, and have excellent sea-keeping characteristics.

FWSAR: Fixed-wing search and rescue as the name implies is that portion of the SAR mission conducted by conventional aircraft as opposed to helicopters. Fixed-wing resources tend to be used in the initial phases of the search to locate the distressed ship or aircraft and helicopters to perform the rescue. With limitations, both have some capability to perform the other's role.

Geomatics: a field of activities that uses a systematic approach to integrate all means used to acquire and manage data obtained from sources in space.

Force generation: The principles, fundamentals and process that dictate how forces will be created that include equipping, training and otherwise preparing for operations.

Force projection: The ability to project the military element of national power from Canada, in response to requirements for military operations. Force projection operations extend from mobilization and deployment of forces to redeployment.

Griffons: Light utility helicopter used to transport small groups of troops and light equipment around the battlefield. 75 of 100 purchased in the 1990's are in service with the CF.

GTS (**GTS Katie**): GTS refers to a Gas Turbine Ship and the GTS Katie was a 750-foot, roll on/roll off cargo ship.

Halifax-class Frigates: please see Frigates.

Huey: Light utility helicopter used to transport troops and light equipment around the battlefield. Replaced by the Griffon in the CF inventory.

HUMINT: A category of intelligence derived from information collected and provided by human sources. 2. Intelligence derived from information collected and provided by human sources.

Imagery: A collective term that means the representations of objects reproduced electronically or by optical means on film, electronic display devices, or other media.

Impact Statement: A written statement to the Chief of Defence Staff and Deputy Minister by a Level One senior manager that indicates what the impact will be on his or her organization should the full allocation of requested funds not be provided for the coming Fiscal Year.

Information Technology: The scientific, technological and engineering disciplines as well as to the management technologies used in information handling, communication and processing, their applications and associated software and equipment and their interaction.

Interoperability: The capability to communicate, execute programs, or transfer data among various functional units in a manner that requires the user to have little or no knowledge of the unique characteristics of those units.

Interoperability of materiel: Many believe that it can make a major contribution to the smooth running of multilateral operations through interoperability of materiel and common command, control and communications arrangements.

ISAF: International Security Assistance Force. The ISAF in Kabul, Afghanistan is UN mandated and NATO led.

Joint Support Ship: The Joint Support Ship will provide three distinct capabilities to provide better support to both naval and land forces during joint, national and international operations. It replaces the current AOR. Its roles are:

- a) <u>Underway Support to Naval Task Groups</u> Underway support is the term used to describe the transfer of liquids and solids between ships at sea. This underway support also includes the operation of helicopters and a second line maintenance capability for helicopters, as well as a task group medical and dental facility;
- b) <u>Sealift</u> To meet a range of possibilities in an uncertain future security environment, three Joint Support Ships together will be capable of transporting 7,500 lane metres of vehicles and stores. This will provide for the transport of an army battle group. The capability will also include a flexible self load and unload function; and

c) <u>Afloat Support to Forces Deployed Ashore</u> – This capability will provide a limited joint force headquarters at sea for command and control of forces deployed ashore.

JTF-2: The Joint Task Force Two (JTF 2) of the Canadian Forces is a Special Operations Forces unit that is responsible for federal counter-terrorist operations. The mission of JTF 2 is to provide a force capable of rendering armed assistance in the resolution of an incident that is affecting, or has the potential to affect, the national interest. The primary focus is counter-terrorism (CT), however, the unit can expect to be employed on other high value strategic tasks. JTF 2 was created on April 1, 1993, when the Canadian Forces (CF) accepted responsibility for federal counter-terrorism operations from the RCMP. Since its inception, the unit has continuously evolved to meet modern-day threats. As the events of 11 September 2001 have shown, the threat of terrorism comes from an elusive, sophisticated and determined enemy. In order to maintain an edge in this operational environment, JTF 2 is continuously developing new capabilities, technologies, and tactics. The year 2001 marked an important milestone in the history of JTF 2. The unit was committed to the international Special Operations Forces coalition in Afghanistan, completing its operations there in November 2002. This deployment was the first time JTF 2 was used in a major combat role outside Canada. The unit played a critical role in coalition Special Operations Forces and earned the respect of Canada's allies for its professionalism.

Kiowa: A small helicopter used primarily for battlefield reconnaissance. No longer in service with the CF.

Labrador Helicopter: A twin-rotor helicopter formerly used by the CF for search and rescue. Replaced by the Cormorant.

"Level One" Manager: Senior military officers or senior civilian executives who hold Assistant Deputy Minister status and occupy key positions in DND at the level just below Chief of Defence Staff and the Deputy Minister.

Littoral: The coastal sea areas and that portion of the land which is susceptible to influence or support from the sea, generally recognized as the region which horizontally encompasses the land-watermass interface from 100 kilometres (km) ashore to 200 nautical miles (nm) at sea, and extending vertically into space from the bottom of the ocean and from the land surface

Major Crown Projects: Major Crown Projects (MCP) have cost estimates that exceed \$100 million and that the Treasury board would assess as high risk. The Treasury Board may also direct that certain projects, with a total cost of less than \$100 million but considered to be high risk, be designated as a MCP. There can be projects exceeding \$100 million, but that have not been assessed as high risk or designated as a MCP.

Medium Lift helicopter: Name given to a larger category of utility helicopter than is currently in the CF inventory. Would be used to transport larger groups of troops and their equipment around the battlefield. Consideration for acquiring this capability is underway but actual specifications have not yet been determined.

Mid-life refit: In a naval sense, a refit consists of preventive, corrective and unique maintenance activities that are undertaken at the half-way point of a vessel's designed life. Major overhauls of heavy machinery and the replacement of obsolete electronic systems and/or sub-systems are typically undertaken.

Militia: Army component of the Primary Reserve.

Mine-hunting: The technique of searching for, or clearing mines using mechanical or explosion gear, which physically removes or destroys the mine, or produces, in the area, the influence fields necessary to actuate it.

National Interests: The concept of the security and well-being of the sate, used in making foreign policy. A national interest approach of foreign policy demands realistic handling of international problems, based on the use of power divorced from moral principles and values. Conflicts of national interest in the state system are resolved through diplomacy, international law, international institutions or, ultimately, through war. The national interest concerns the defence and maintenance of the social, political and economic stability of Canada and, thereby, the security of the nation.

Network-Enabled Operations (NEOps): NEOps increases the effectiveness of an armed force by improving intelligence collection, analysis and information sharing between its various elements, including land, sea and air forces. Consequently, the implementation of NEOps is key to achieve shared awareness, increased speed of command, higher tempo of operations and increased security of our forces in the field.

OP Apollo: Operation APOLLO was Canada's military contribution to the international campaign against terrorism from October 2001 to October 2003.

OP Connection: Op Connection is a new effort to reform recruiting started by the Chief of the Defence Staff that pushes the individual environmental commands to redirect their awareness and recruiting efforts from their own specific environments and to refocus on promoting the CF as a whole.

Operational Tempo: Ops Tempo normally refers to unit activity and Pers Tempo refers to individual activity.

Overseas Rotations/ROTO: The frequency by which military units are rotated between Canada and overseas theatres. ROTO is a colloquial term for rotation.

Personnel tempo: The frequency and quantity of time spent on military duties away from home.

Note 1: The accumulation of absences from home can be due to overseas deployments individual or unit-level training or incremental tasking. Personnel tempo is therefore not just a phenomenon experienced by Canadian Forces members on deployed operations.

Note 2: As with virtually all other NATO nations, the CF and DND are experiencing two converging demands. The first is that the general level of operational commitments have increased over the last ten years while the second is that the demands made on personnel during non-operational times have also augmented. The latter factors include obvious indicators such as the ice storm or flood relief efforts (with Y2K yet to come) and frequent retraining due to Military Occupational Structure (MOS) Review driven changes and new general purpose courses (Standard for Harassment and Racism Prevention (SHARP), ethics, environmental, etc). These also encompass the Quality of Life (QOL) dissatisfiers of reduced cost moves, lack of promotions, uncertainty over future ASD or downsizings, and potential pension amendments as well as the growing reality that continued reductions of non-operational positions is making postings to bases and HQs highly stressful. While Ops Tempo normally refers to unit activity and Pers Tempo refers to individual activity, the real concern is the cumulative effects of what could be considered "career tempo" have the potential, particularly for the CF, to reduce commitment, increase burnout and contribute to elevated unscheduled attrition.

Platform: Refers to a ship, aircraft or vehicle on which a weapon system is mounted.

Polaris: Canadian designator for the A-310 Airbus used by the CF to transport passengers and bulk freight. Two are being modified to function also as tankers to provide air-to-air refuelling. 5 are in service with the CF.

Realty Replacement Cost (RRC): An objective measure of the value of our realty assets, excluding land. It represents the estimated cost to replace each realty asset with a new realty asset, built to today's standards while still serving the same function and meeting the same capacity as the current RA realty assets.

RECCE - Reconnaissance: A mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area.

Recognized Maritime Picture: A plot compiled to depict maritime activity on each of Canada's coasts is referred to as a Recognized Maritime Picture. The term "recognized" is used to indicate that the picture has been analyzed and evaluated prior to its dissemination. In other words, rather than having observing stations or units simply pass data among themselves, there is a central authority to whom data is forwarded for compilation, evaluation and dissemination as a *recognized* picture – a Commander's evaluation of what is happening in a given area.

Regular Forces: Component of the Canadian Forces that consists of officers and non-commissioned members who are enrolled for continuing, full-time military service.

Reserve Force: Component of the Canadian Forces that consists of officers and non-commissioned members who are enrolled for other than continuing, full-time military service when not on active service. The Primary Reserve comprises the Militia, the Naval Reserve, the Air Reserve and the Communications Reserve. Other sub-components of the Reserve Force are: the Supplementary Reserve, the Cadet Instructors Cadre and the Canadian Rangers.

Risk Management: A logical step-by-step process to protect, and consequently minimize risks to, the government's property, interests and employees. Risk

includes the chance of damage to or loss of government property, and the chance of incurring second- or third-party liability to non-government entities.

ROE - Rules of Engagement: Directives issued by competent military authority which specify the circumstances and limitations under which forces will initiate and/or continue combat engagement with other forces encountered.

Route survey: Involves the detailed collection of ocean bottom information in order to provide a "before" picture of the ocean bottom. A multibeam side scan sonar is used. Collected information includes; Bathymetry (underwater topography), Sediment Classification, Object Positioning and Identification and Mine Burial Impact Assessment. Although the primary focus is to compile and catalogue acoustically derived imagery beneath pre-determined shipping routes, Route Survey also works with Other Government Departments (OGDs) through various Memorandums of Understanding (MOU), providing Aid to Civil Power.

Rust-out: The physical deterioration of a real property or moveable asset, causing a degradation in the asset's performance, which may cause increased operating and maintenance costs, decreased economic life, and a negative impact upon service delivery.

SAR: Search and Rescue.

Sea King: A medium-sized maritime patrol and anti-submarine warfare helicopter. These operate both from ashore and from Canada's naval ships at sea. In service since the 1960's, it is scheduled to be replaced. 29 remain in service with the CF.

Sealift: To transport (personnel or supplies) by sea.

Side-scan sonar: A category of <u>sonar</u> system that is used to efficiently create an image of large areas of the sea floor. This technique is used for a wide variety of purposes, including creation of <u>nautical charts</u> and detection and identification of underwater objects and bathymetric features. The sensor emits pulses down toward the seafloor across a wide angle perpendicular to its path through the water, which may be towed from a surface vessel or <u>submarine</u>, or mounted on the ship's <u>hull</u>.

"Sign off and Aircraft": Certify that maintenance work completed on the aircraft has been done correctly and that the aircraft is ready to be flown.

SITREP - Situation Report: A report giving the situation in the area of a reporting unit or formation.

Six Pack: Refers to a deployment package of 6 CF-18 aircraft along with the crews and other essentials required to operate away from home.

Special Forces: Canadians served with distinction in several types of Allied Special Forces units during the Second World War. One such unit was the legendary U.S. and Canadian combined 1st Special Service Force or, as it was commonly known, "the Devil's Brigade." It achieved a sterling combat record despite overwhelming odds. While tactics, weapons and technology have changed, today's JTF 2 soldiers are perpetuating the basic qualities that define such units.

Special Operations Group (SOG): As articulated in the 2005 Defence Policy Statement, the operational transformation of the Canadian Forces will focus on the establishment of new joint organizations and combat structures that can meet the Government's expectations for effectiveness, relevance and responsiveness. A key element of this transformation is the creation of a Special Operations Group (SOG) that will be capable of responding to terrorism and threats to Canadians and Canadian interests around the world.

The SOG will be composed of Joint Task Force 2 (JTF2), the Canadian Forces' special operations and counterterrorism unit; a special operations aviation capability centred on helicopters; a Joint Nuclear, Biological and Chemical Defence Company; and supporting land and maritime forces. The SOG will be capable of operating as an independent formation but its primary focus will be to generate Special Operations Forces (SOF) elements to support Canada Command (Canada COM) and the Canadian Expeditionary Forces Command (CEFCOM). Integrating special operations forces in this manner will increase their impact in operations, as well as the range of options available to the government in the deployment of the Canadian Forces.

Squadron: The basic operating unit of (usually) an air force. Typically consists of about 10 to 20 aircraft, crews and support equipment designed to operate as an entity.

Standing Contingency Task Force [SCTF]: A concept first outlined in the Defence Policy Statement of 2005. This Task Force will respond rapidly to emerging crises.

Steady-state: An equilibrium level.

Strategic airlift: The type of airlift used to haul large quantities of materiel (and personnel) over long distances, usually from home to a marshalling point in the theatre of operations. Usually large aircraft with long unrefuelled range.

Strategic (plan): A plan for the over-all conduct of a war. A long-range plan that includes the major objectives of an organization and how they are to be attained.

Submarines: Self-propelled submersible types regardless of whether employed as combatant, auxiliary, or research and development vehicles which have at least a residual combat capability. Canada has four of the VICTORIA-class that are combatants provide the Navy with formidable defensive and offensive capabilities, along with a valuable anti-submarine (ASW) training asset. They are extremely quiet and stealthy, and well suited for current naval defence roles. Important amongst these is support to other federal government departments, including participation in fisheries, immigration, law enforcement and environmental patrols.

Sustain forces deployed: To provide for the needs of forces conducting operations away from home to include food, housing, medical care, fuel, ammunition, spare parts reinforcements etc. In short everything the force requires to continue to operate.

T-33: A fighter aircraft from the 1950's used until recently by the Air Force for combat support missions (training, towing gunnery targets, etc.). No longer in service.

Tactical airlift: The type of airlift used to carry personnel and materiel over shorter distances within a theatre of operations. Usually smaller, somewhat more agile aircraft with some capability to defend against attack.

Tactical (plan): A detailed and relatively short-range plan describing the immediate goals, their order of priority, their completion dates, the precise means to be employed and the coordination required.

Tracker: A smaller twin-engine maritime patrol aircraft formerly used for fisheries and other inshore maritime patrol. No longer in service with the CF.

Trained and effective personnel and technicians: Personnel who have been fully trained and qualified to perform their assigned function and who are otherwise available (medically fit etc.) to perform it.

Trinity / **Athena:** TRINITY and ATHENA are organizations within Maritime Forces Atlantic and Maritime Forces Pacific respectively. Among their responsibilities are administering the Maritime Operations Centres that are being augmented by representatives from six other government departments (Transport Canada, the RCMP, the Canadian Border Service, Department of Fisheries and Oceans, and the Canadian Coast Guard) to create the new Maritime Security Operations Centres that will "fuse" data from each department's units to create an improved Recognized Maritime Picture.

V Corps: The US Army formation that was in Iraq in 2003

Victoria-class submarines: the Victoria-class submarines are modern, conventionally-powered boats with vastly more evolved hydrodynamic features and advanced marine engineering systems, as well as better habitability and endurance. The boats are able to 'snort' (through an extendible air-breather) while at periscope depth and can remain deeply submerged for extended periods at slow speed. Operating depth is over 200m. The hulls are covered with 22,000 anechoic rubber tiles specially designed to absorb sonar transmissions and make the submarines hard to detect. The boats are designed to operate for 7 years between overhauls. There is a five-person diver lockout chamber in the fin.

Vessels of Interest: Any seagoing vessel that is traveling in or near Canada's territorial waters that may be of interest for any number of reasons that are of interest to Canada.

Wing: An air force structure consisting of a number of squadrons and other units designed primarily to conduct operations. A Wing will usually specialize in providing a single capability such as a fighter force or airlift.

Yakolev-42: Soviet era Russian airliner similar in appearance to a Boeing 727.

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.

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

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

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 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

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

Axworthy, Dr. Thomas Chairman, Centre for Study of Democracy Queen's University September 29, 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 Kyrgyz Republic May 12, 2003

Bariteau, Lieutenant-Colonel François Commanding Officer, Canadian Forces Leadership and Recruit School National Defence June 1, 2005

Barrette, Mr. Jean Director Security Operations, Safety and Security Group Transport Canada November 27, 2002 / December 2, 2002

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

Beattie, Captain Davie Canadian Parachute Centre Adjutant CFB Trenton June 25-27, 2002 **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

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

Bartley, Mr. Alan 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 J4 CFB Kingston May 7-9, 2002

Beare, Brigadier-General Stuart A. Commander, Land Forces Western Area National Defence March 7, 2005

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Beattie, Lieutenant-Colonel Mark

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Beers, Master Corporal Robert

Canadian Forces School of Electrical and Mechanical

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June 25-27, 2002

Begley, Inspector J.J. (Jim)

Federal Policing Service

RCMP

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Bell, Lieutenant-Commander John

Commander, HMCS Queen

National Defence

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Belzile, Lieutenant-General (ret'd) Charles

Chairman

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Bernier, Warrant Officer Michel

5th Military Police Platoon

CFB Valcartier

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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

Black, Mr. Bob

Director, Office of Emergency Preparedness

City of Edmonton

January 28, 2003

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, Lieutenant Colonel Dean C.

Commanding Officer, 403 Squadron

CFB Gagetown

January 22-24, 2002

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

Boutilier, Dr. James A.

Special Advisor (Policy), Maritime Forces, Pacific Headquarters

Department of National Defence

June 9, 2003

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

Bowes, Lieutenant-Colonel Steve

Armour School

C.F.B. Gagetown

National Defence

January 31, 2005

Who the Committee Heard From

Boyer, Colonel Alain

Commander 15 Wing Moose Jaw

National Defence

March 9, 2005

Brandt, Mr. Brion

Director, Security Policy

Transport Canada

May 5, 2003

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

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

September 23, 2003

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

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

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

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

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

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

Who the Committee Heard From

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, 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

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

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

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

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

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 **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

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

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

Who the Committee Heard From

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

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

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 **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

Doge, Ms. Trish Director, Risk and Emergency Management, City of Vancouver January 30, 2003

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

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

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

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

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

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 **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

Dunn, Major General Michael Vice Director, Strategic Plans and Policy The Pentagon February 06, 2002

Earnshaw, Commander Paul F. Commanding Officer TRINITY, Joint Ocean Surveillance Information Centre Department of National Defence September 22, 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

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

Who the Committee Heard From

Fadden, Mr. Richard

Deputy Clerk, Counsel and Security Intelligence

Coordinator

Privy Council Office

October 29, 2001, January 29, 2002, August 14, 2002

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 07, 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

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

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

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

Flynn, Commander Steven U.S. Coast Guard and Senior Fellow National Security Studies, Council on Foreign Relations February 04, 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

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

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 **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, 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 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

Who the Committee Heard From

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

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

Gilkes, Lieutenant-Colonel B.R. Kings Own Calgary Regiment National Defence March 8, 2005

Gimblett, Mr. Richard Research Fellow Centre for Foreign Policy Studies Dalhousie University February 21, 2005

Giroux, Master Corporal Canadian Parachute Centre 8 Wing Trenton June 25-27, 2002 **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

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, 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

Glencross, Captain, Reverend Bruce Regimental Padre Minister The Black Watch November 5-6, 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

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

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 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

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

Who the Committee Heard From

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

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

Heinbecker, Paul

Former Ambassador to the U.N.

As an individual

February 21, 2005

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

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

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

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

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 **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

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

Who the Committee Heard From

Hornbarger, Mr. Chris

Director

U.S. Office of Homeland Security

February 7, 2002

Howe, Corporal Kerry

CFB Borden Technical Services

CFB Borden

June 25-27, 2002

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

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

Hounsell, Master Corporal Scott

Candian Forces School of Electronical and Mechanical

Engineering, 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

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

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

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

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 Jenkins, Wilma

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

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

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 06, 2002

Kee, Mr. Graham Chief Security Officer Vancouver Port Authority November 18-22, 2001

Who the Committee Heard From

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

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

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

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

Kubeck, Commander Kimberley Naval Control of Shipping Intelligence, Department of National Defence September 25, 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 04, 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

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

Kummel, Colonel Steff J. Wing Commander, 17 Wing Winnipeg National Defence March 10, 2005

Kurzvnski, 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 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, 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

Laroche, Colonel J.R.M.G.

National Defence May 2, 2005

Last, Colonel David

Registrar Royal Military College of Canada November 29, 2004 Kwasnicki, Corporal Anita

CFB Kingston May 7-9, 2002

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

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

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

Who the Committee Heard From

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, Major-General Andrew

Canadian Forces

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

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

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

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

Lilienthal, Lieutenant-Colonel Mark

Senior Staff Officer

Canadian Forces Support Training Group

CFB Borden

June 25-27, 2002

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, 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 **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

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

Who the Committee Heard From

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, 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

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

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

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

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

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

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

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

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

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

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

McKinnon, Chief David P. Chief of Police Halifax Regional Police Force January 22-24, 2002

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

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

Who the Committee Heard From

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

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

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 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

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

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, 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

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

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 Mitchell, Brigadier General Greg Commander Land Forces Atlantic Area 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

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

Who the Committee Heard From

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

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

Orr, Major Ken

Senior Staff Officer, Attraction Canadian Forces Recruiting

Group

CFB Borden

June 25-27, 2002

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

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

Ortiz, The Honorable Solomon P.

Ranking Member, Subcommittee on Military

Readiness (Democrat - Texas)

U.S. House Armed Services Committee

February 06, 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

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 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

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

Who the Committee Heard From

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

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

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

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

Reed, The Honorable Jack Chair (Democrat – Rhode Island), U.S. Senate Armed Services Committee February 05, 2002

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 **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

Reaume, Mr. Al, Assistant Chief of Fire and Rescue Services, Fire Department, City of Windsor February 27, 2003

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

APPENDIX XIII

Who the Committee Heard From

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, 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

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

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

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

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 06, 2002

Russell, Mr. Robert A., Assistant Commissioner,

Atlantic Region, Canada Customs and Revenue

Agency

September 22, 2003

The Government's No. 1 Job

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

Saunders, Corporal Cora 16 Wing CFB Borden June 25-27, 2002

Savard, Lieutenant-Colonel Danielle Commander, 5th Field Ambulance CFB Valcartier September 24, 2003

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 **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

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

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

APPENDIX XIII

Who the Committee Heard From

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

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

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

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

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

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

The Government's No. 1 Job

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, 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, 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

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 **St-Cyr,** Lieutenant-Colonel Pierre Commander, Support Unit, 430th Helicopters Squadron, CFB Valcartier September 24, 2003

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

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

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

APPENDIX XIII

Who the Committee Heard From

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

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, 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 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

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

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

The Government's No. 1 Job

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

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 06, 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 **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

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 05, 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

APPENDIX XIII

Who the Committee Heard From

Williams, Mr. Alan

Assistant Deputy Minister (Material)

National Defence November 1, 2004

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

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, Robert

Commissioner Canada Customs and Revenue Agency May 6, 2002

Wvnnvk, 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 Williams, Captain (N) Kelly

Former Commanding Officer, HMCS Winnipeg,

National Defence September 22, 2003

Wilmink, Mr. Chuck

Consultant

November 4, 2004

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

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 XIV

Biographies of Committee Members



The Honourable NORMAN K. ATKINS, Senator

Senator Atkins was born in Glen Ridge, New Jersey. His family is from Nova Scotia and New Brunswick, where he has spent a great deal of time over the years. He is a graduate of the Appleby College in Oakville, Ontario, and of Acadia University in Wolfville, Nova Scotia, where he studied economics and completed a Bachelor of Arts programme in 1957. Senator Atkins subsequently received an Honourary Doctorate in Civil Law in the Fall of 1999 (DLC), from Acadia University, his old "alma mater".

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.

Over the years, Senator Atkins has had a long and successful career in the field of communications – as an organizer or participant in a number of important causes and events. For instance, and to name only a few of his many contributions, Senator Atkins has given of his time and energy to Diabetes Canada, the Juvenile Diabetes Foundation, the Dellcrest Children's Centre, the Federated Health Campaign in Ontario, the Healthpartners Campaign in the Federal Public Service as well as the Chairperson of Camp Trillium-Rainbow Lake Fundraising Campaign.

Senator Atkins was also involved with the Institute for Political Involvement and the Albany Club of Toronto. It was during his tenure as President in the early 1980's that the Albany Club, a prestigious Toronto private club, and one of the oldest such clubs across the country, opened its membership to women.

Senator Atkins has a long personal history of political involvement. In particular, and throughout most of the last 50 years or so, he 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.

Norman K. Atkins was appointed to the Senate of Canada on June 29, 1986. In the years since, he has proven to be an active, interested, and informed Senator. In particular, he has concerned himself with a number of education and poverty issues. As well, he has championed the cause of Canadian merchant navy veterans, seeking for them a more equitable recognition of their wartime service. Senator Atkins served in the United States military from September 1957 to August 1959.

Currently, Senator Atkins sits as an independent Progressive Conservative member, and is on the National Security and Defence Committee and the Veterans Affairs Subcommittee. He is also the Honourary Chair of the Dalton K. Camp Endowment in Journalism at Saint-Thomas University in Fredericton, New Brunswick and Member of the Advisory Council, School of Business at Acadia University.



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.

He was founding chairman of the Alberta Foundation for the Performing Arts. He is the recipient of an Honourary Diploma of Music from Grant MacEwen College, and Honourary Doctorate of Laws from the University of Alberta, and of the Sir Frederick Haultain Prize. He is an officer of the Order of Canada, and a Member of the Alberta Order of Excellence.

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.

A Calgary-born lifelong Albertan, he moved to Edmonton in 1949 where he resides with Ida, as do their grown children and their families.



The Honourable Larry W. Campbell, Senator

One of Vancouver's best-known and most admired citizens, Larry W. Campbell has served as mayor since 2002 after a distinguished and high profile career primarily in law enforcement and death investigation. Larry W. Campbell moved to Vancouver in 1969, working for the RCMP and later becoming a member of the force's Drug Squad. In 1981, he began work for the Government of British Columbia's Ministry of Attorney General and was instrumental in the establishment of the first Vancouver District Coroner's office,

acquiring the position of Chief Coroner in 1996. His experiences in this role led to his participation in the development of the "Four-Pillar Approach" to Vancouver's east-side drug problem. His experiences as the city's Chief Coroner inspired him to become a scriptwriter for the Gemini award-winning television series Da Vinci's Inquest, which is loosely based on his own career. Larry W. Campbell has a Master's of Business Administration and currently lives with his family in Point Grey. He sits in the Senate as a member of the Liberal Party 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. His legal interests include Patent and Trademark Law, and intellectual property issues. Called to the bar of New Brunswick, Quebec, and Ontario, he is also certified as a Specialist in Intellectual Property Matters by the Law Society of Upper Canada, and a Fellow of the Intellectual Property Institute of Canada. Most recently (1999-2000) he served as President and CEO of the New Brunswick Forest Products Association. In 1992, he joined J.D. Irving Ltd., a conglomerate with substantial interests in areas including forestry, pulp and paper, and shipbuilding, as legal counsel. Prior to 1992 he practiced with Gowling & Henderson in Kitchener-Waterloo, Ogilvy Renault in Ottawa, and Donald F. Sim, Q.C. in Toronto, where he began his career in 1973.

An active member of the community, Senator Day recently chaired the Foundation, and the Board of the Dr. V.A. Snow Centre Nursing Home, as well as the Board of the Associates of the Provincial Archives of New Brunswick. Among his many other volunteer efforts, he has held positions with the Canadian Bar Association and other professional organizations, and served as National President of both the Alumni Association (1996) and the Foundation (1998-2000) of the Royal Military Colleges Club of Canada.

Senator Day holds a Bachelor of Electrical Engineering from the Royal Military College of Canada, an LL.B from Queen's University, and a Masters of Laws from Osgoode Hall. He is a member of the bars of Ontario, Quebec and New Brunswick.

The Honourable COLIN KENNY, Senator



Career History

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.

Committee Involvement

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.

He is currently Chair of the Standing Senate Committee on National Security and Defence. The Senator is also currently a member of the Steering Committee of the Standing Senate Committee on Energy, the Environment and Natural Resources.

Defence Matters

Senator Kenny has been elected as Rapporteur for the Defence and Security Committee of the NATO Parliamentary Assembly. Prior to that he was Chair of the NATO Parliamentary Assembly Subcommittee on the Future Security and Defence Capabilities and Vice-Chair of the NATO Parliamentary Assembly Subcommittee on the Future of the Armed Forces.

EMAIL: kennyco@sen.parl.gc.ca

Website: http://sen.parl.gc.ca/ckenny

The Honourable MICHAEL A. MEIGHEN, Q.C., Senator

Appointed to the Senate in 1990, the Honourable Michael Meighen serves on various Senate Standing Committees including Banking Trade and Commerce, Fisheries, National Security and Defence, and chairs the Subcommittee on Veterans Affairs. He has also served on the Special Joint Committee on Canada's Defence Policy and the Special Joint Committee on a Renewed Canada.

In his private career, Senator Meighen practiced litigation and commercial law in Montreal and Toronto. He is Counsel to the law firm Ogilvy Renault, and was Co-Legal Counsel to the Deschênes Commission on War Criminals. He sits on the Boards of Directors of Paribas Participations Limited, J.C. Clark Ltd. (Toronto), and Sentry Select Capital Corp. (Toronto).

Senator Meighen's present involvement in community service includes the Salvation Army (Past Chair), Stratford Festival (past Chair), Prostate Cancer Research Foundation (Director), Atlantic Salmon Federation - Canada (Chair), University of King's College (Chancellor), University of Waterloo Centre for Cultural Management (Chair, Board of Governors), McGill University (Governor).

Senator Meighen is a graduate of McGill University and Université Laval and was awarded Honorary Doctorates in Civil Law from Mount Allison University in 2001 and from University of New Brunswick in 2002. He lives in Toronto with his wife Kelly and their three sons.



The Honourable Wilfred P. Moore, 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. 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.

Senator Moore is especially interested in post-secondary education, and is a member of the Liberal Party's Post-Secondary Education and Research Caucus. He has served as a member of the Economic Committee of the Atlantic Liberal Caucus. This Committee was responsible for the policy paper for the Atlantic Provinces entitled "Catching Tomorrow's Wave." This initiative became government policy in 2000 under the program name of "Atlantic Investment Partnership" which committed \$700 million into research (including post-secondary education), community economic development, small communities investment, trade and investment, entrepreneurship and business skills development, and tourism. This funding was renewed in the 2005 budget for a further period of five years.

In March, 2001, the Senator commenced an Inquiry in the Senate on the role of the federal government in the financing of deferred maintenance costs in Canada's post-secondary education institutions. This inquiry, after being considered by the Senate Standing Committee on National Finance, resulted in the federal government providing assistance of \$200 million in its 2002 budget for Canada's post-secondary education institutions for the indirect costs of research, which

includes the maintenance of the buildings of those institutions. This financial assistance has since continued in every subsequent federal budget as a line item.

Currently, the Senator sits as a member of the Senate Standing Committee on National Security and Defence, Banking Trade and Commerce, as well as the Joint Committee on Scrutiny of Regulations. He is a vice-chair of the Canada-United States Inter-Parliamentary Group, and is chair of the Senate's Artwork Advisory Working Group, a sub-committee of the Standing Senate Committee on Internal Economy, Budgets and Administration. He has also served on both the Standing Senate Committee on National Finance (1996-2003) and Legal and Constitutional Affairs (1996-2003).

Senator Moore has given generously of his time to numerous voluntary organizations, including his church, St. John's Anglican Church, Lunenburg. His community and volunteer involvement is wide-ranging. In particular, since 1994, Senator Moore has served as volunteer chairman of the Bluenose II Preservation Trust Society, a not-for-profit organization and a registered charity, whose fundraising efforts over the winter of 1994-95 enabled the restoration and return to full operational and sailing status of the historic schooner, *Bluenose II*, one of Canada's beloved national icons. The Society successfully operated the ship for 10 years ending on 31 March 2005. More recently, the Senator initiated with the then President of the Nova Scotia College of Art and Design University (NSCAD), a studio residency program, in Lunenburg. This facility, which opened on 26 May 2006, gives graduates of NSCAD an opportunity to gain professional experience, develop their work for an exhibit or graduate school, or make preparations for an entrepreneurial endeavour. Concurrently, this initiative strengthens the existing artistic community in and around Lunenburg.

Senator Moore was born in Halifax, Nova Scotia on January 14th, 1942. He lives with his wife Jane and their two children, Nicholas and Alexandra in Chester, Nova Scotia.



The Honourable Marie-P. (Charette) Poulin

A native of Sudbury, the Honourable Marie-P. (Charette) Poulin was called to the Senate of Canada in September 1995, and is designated as a representative of Northern Ontario.

She is a member of the Senate Standing Committee on Internal Economy, Budgets and Administration as well as the Senate Standing Committee on National Security and Defence. Previously, she served on the Standing Committee

on Banking, Trade and Commerce. A former chair of the Senate Standing Committee on Transport and Communications, she also headed a late-1990s Subcommittee that explored Canada's international position in communications and telecommunications, including an examination of the impact of cyber technology on Canadian culture.

She became the first woman to chair the Senate Liberal Caucus, and the first senator to chair the Northern Ontario Liberal Caucus.

Prior to her appointment, Senator Poulin worked at the deputy ministerial level in the Government of Canada following a career in broadcasting. She was the founding Chairperson and CEO of the Canadian Artists and Producers Professional Relations Tribunal, a federal agency for self-employed workers.

She served as Deputy Secretary to the Cabinet at the Privy Council Office, responsible for overseeing all government communications and consultations. At the Canadian Broadcasting Corporation, she held a variety of Vice-Presidential positions: Human Resources and Industrial Relations; Secretary General to the Board; French Regional Radio and Television Broadcasting Operations.

Before joining the public broadcasting headquarters in Ottawa, she was founding Director of the Corporation's Northern Ontario French Services which included launching Sudbury's radio station *CBON* and establishing more than 30 retransmitter antennae in Northeastern and Northwestern Ontario. In her early career, she was a radio program producer, researcher and university lecturer.

Over the years, Senator Poulin's professional achievements and involvement with various charitable and community organizations earned her national and international recognition. Among her awards are *Prix Marcel Blouin* for the best radio morning program in Canada (1983), the *Médaille du Conseil de la vie française* (1988), the *Ordre de la Pléiade* (1995), an honorary Doctor of Law degree from Laurentian University (1995), the insignia of *Officier de l'Ordre national de la Légion d'Honneur de la France* (2003) and the insignia of the Order of St. John (2004).

She has served on the Bell Globemedia board of directors, as well as on several hospital boards, university and college boards, chambers of commerce, arts and culture boards, and United Ways campaigns.

Among her efforts to promote the francophonie, she was a member of the Implementation Committee for enacting French-language rights in Ontario (Bill 8) and a founding director of *La Cité collégiale* and the *Regroupement des gens d'affaires* (RGA). She was the first woman to chair the RGA.

Senator Poulin currently sits on the board of the ACTRA Fraternal Benefit Society and the *CEO of the Year Award* in addition to being the past-Canadian president of the *Fédération Canada-France*. As Co-Chair of the Canada-Japan Inter-Parliamentary Group, she is affiliated with the Asia-Pacific Parliamentary Forum.

Senator Poulin obtained her Bachelor of Arts degree at Laurentian University in 1966 and was graduated from the University of Montréal in 1969 with a Master's degree in Social Sciences.

She is married to international portrait artist Bernard A. Poulin. They have two adult daughters, Elaine and Valerie.

APPENDIX XV

Biographies of the Committee Secretariat



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, Canadian Forces.

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.



Brigadier-General James S. Cox OMM CD MA (Retired), Analyst

Brigadier General James S. Cox was born in Toronto, Ontario. In 1967 he was commissioned into the infantry and served in Canada and Cyprus. During the period 1972-74, he served with the Gloucestershire Regiment, then part of the British Army of the Rhine.

In following years, Brigadier General Cox served with the Infantry School, Allied Command Europe Mobile Force (Land), twice with the Canadian Airborne Regiment and in senior staff appointments in Army Headquarters and National Defence Headquarters. From 1985 until 1987 he commanded the 3rd Battalion, The Royal Canadian Regiment and from 1991 to 1992 he served as Deputy Commander of the Special Service Force before taking up duty as the Military Chief of Staff of the United Nations Operation in Somalia I and II, until 1993. Upon return to Canada in the summer of 1993, Brigadier General Cox was appointed Commander, 1 Canadian Mechanized Brigade Group. In 1995 he was appointed Director General Land Force Development in Ottawa. From 1996 until 1998, he was the Army Command Inspector. In July 1998 Brigadier General Cox was appointed Deputy Assistant Chief of Staff Intelligence at Supreme Headquarters, Allied Powers Europe, in Mons, Belgium.

Brigadier General Cox completed six operational tours of duty with the United Nations. He has trained with the United States Army, The United States Marine Corps, the British Army Special Air Service and the Royal Marines. He is a graduate of the University of Manitoba, the Royal Military College of Canada, the Canadian Forces College, and has studied at the NATO Defence College in Rome. In 1993 he was awarded the Order of Military Merit in the grade of Officer.

Since retiring from the Army in August 2001, Brigadier General (Ret'd) Cox has worked as a consultant in Ottawa, completed graduate studies and served as the Executive Secretary of the Canadian Association for Security and Intelligence Studies. In addition to his current position as a Library of Parliament Researcher, he is a doctoral candidate in War Studies at the Royal Military College of Canada.



Liam Price, Analyst

F. William Price joined the Parliamentary Research Branch of the Library of Parliament in January 2004. He serves as a Research Officer for the Standing Senate Committee on National Security and Defence.

Mr. Price received a *cum laude* Bachelor of Science Foreign Service in International Politics Security Studies from

Georgetown University in Washington, DC, and a Masters of Literature in International Security Studies from the University of St. Andrews in Scotland. At Georgetown, Mr. Price completed a certificate in International Business Diplomacy and co-designed a course on the Idea of Canada in a Globalizing World; also he earned the Learning, Peace and Freedom and Krogh Medals, and was selected to be a speaker at Convocation.

Mr. Price's recent studies have included work on post-positivist international relations theory, military responses to terrorism and the oversight and review of security intelligence.

Mr. Price has contributed to the Committee's reports on *National Emergencies:* Canada's Fragile Front Lines (March 2004), The Canadian Security Guide Book 2005 Edition (December 2004), Borderline Insecure (June 2005), and Wounded: Canada's Military and the Legacy of Neglect.

In 2004, Mr. Price also served as the researcher to the Interim Committee of Parliamentarians on National Security.



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 a Bachelor of Arts (Psychology and Sociology) in 1993 from the University of Alberta and is completing 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).



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.



Barbara Reynolds, Committee Clerk

Barbara Reynolds has worked with Canadian parliamentarians for 30 years in various capacities. Trained as a sociologist, she worked for 10 years as a research officer for the Library of Parliament, assisting committees involved in the area of social affairs. During this time she served for three years as Director of Research for the House of Commons Committee on Disabled Persons that produced the landmark report entitled Obstacles.

An associate of the Parliamentary Centre for 15 years, she organized fact-finding visits for legislators to and from the United States as well as study tours to Canada for legislators from African and Southeast Asian countries. She coordinated professional development programs for legislators and their staff, and wrote guidebooks on the operation of parliamentarians' offices in Ottawa and in their constituencies. In addition, she served as the director of the Parliament, Business and Labour Trust, a program under which legislators spend up to a week with major corporations and trade unions.

From 1985 to 2000 she also served as adviser to the Canadian Group of the Inter-Parliamentary Union, the worldwide organization of legislators that serves as the parliamentary wing of the United Nations.

In April 1998, she joined the Senate Committees Directorate as a Committee Clerk. Her committee assignments have included: Security and Intelligence; Boreal Forest, Fisheries; Transportation Safety; Veterans Affairs; and National Security and Defence. In June 2002, she received the Speaker's Award of Excellence for her work in the Senate.