



National Defence, National Interest:
Sovereignty, Security and Canadian
Military Capability in the Post 9/11 World

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Capability in the Post 9/11 World

A Report prepared by the
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For the
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Introduction

Since the late 1990s, Canada's relations with the United States have been adversely affected by cuts in the Canadian defence budget and the perception, south of the border that Canada was losing military capabilities. American policymakers often expressed such views to Canadian journalists, Parliamentarians, and defence and foreign affairs officials. American political leaders and ambassadors were more circumspect in their public expressions.

American chagrin centred around two effects of the Canadian defence cuts: growing Canadian inability to share the international burden for ensuring peace and security and Canada's capability and willingness of carrying a fair share of the load for continental defence.

The terrorist attacks of 9/11 sharply increased the American criticism of the state of Canadian defences. The most outspoken critic was none other than United States ambassador to Canada Paul Celucci, but other diplomatic officials and American political leaders have been no less sparing of Canada, even if somewhat less public in their remarks.

Although Canada greatly increased spending on a variety of security measures in the December 2001 federal budget, very little was directed specifically to Canada's military. The Americans took notice. In the United States Secretary of Defense's annual report to the United States Congress on *Allied Contributions to the Common Defense* (United States Department of Defense, June 2002), Canada was singled out as having contributed "less than its *fair share*" among NATO countries of active duty military personnel, ground combat forces, naval tonnage and combat aircraft capability.¹ In virtually all other of the indices by which military contributions are measured in that report, Canada places at or near the bottom.

Canadian defence spending was increased in the February 2003 budget, but no specific provision was made for any expansion of Canada's overburdened military or much needed capital equipment replacement. The actual decline of Canadian military capabilities was more or less arrested, but the budget offered no prescription for recovery. Thus defence remains a major irritant in Canada-United States relations.

National Defence, National Interest was prepared for the Canadian Council of Chief Executives by the Canadian Defence and Foreign Affairs Institute to address the key strategic defence and security issues facing Canada. The overall focus is on what Canada needs to do both to defend its own people and sovereign territory and to contribute to the defence of North America and to global peace and security. The authors are all fellows of the Centre for Military and Strategic Studies of the University of Calgary.

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¹ Office of the Secretary of Defence of the United States, Report on Allied Contributions to the Common Defence, June 2002, p. 1-2.

l) Canada in the World Today

Since the late 1980s Canada has been governed by administrations which placed issues other than foreign policy and defence at the top of their political agendas. Under the current government, Canadian diplomatic activity, military activity abroad in support of Canadian foreign policy, and Canadian international aid have all diminished measurably; Canada's share of defence spending measured as a percentage of GDP is now the second lowest in NATO – a meager 1.1%.

The shrinking of Canada's international capabilities directly undermines Canada's ability to protect its interests and diminishes Canadian sovereignty by limiting Canadian options. From colonial days to now, Canada's ability to have any significant impact on those nations and/or international regimes and/or events which have had major significance for Canada's security, prosperity, and well-being has been directly related to Canada's willingness to play a role in global affairs.

Two significant historical examples are proof of this axiom. Canada's sacrifices in two World Wars and Korea laid the basis for Canada's emergence from colony to full nationhood and earned Canada a seat and a voice in the new United Nations, the International Monetary Fund, the World Bank, the International Atomic Energy Agency, the World Trade Organization, and the North Atlantic Treaty Organization (NATO). Canada's eagerness to play a full role in partnership with the United States in continental defence from August 1940 - with the signing of the Ogdensburg Agreement - through the Second World War and through the Cold War gave Canada equal status with the United States on the Permanent Joint Board of Defence (PJBD), North American Aerospace Defence Command (NORAD), and a plethora of defence production and technology sharing and testing agreements. In each case Canadian opportunities were maximized for; advancing Canadian interests abroad, defining Canada as an independent nation, broadening the Canada-United States partnership, and protecting Canadian sovereignty by convincing the United States to share in decision-making regarding continental defence arrangements.

By engaging other nations, Canadians enhanced national pride while protecting national interests. Pride is essential to a people's sense of self-worth; interests are essential to a people's well-being.

Canada's population base, and thus its manufacturing infrastructure, is too small and too limited in capability to sustain the living standards of Canadians, including the level of government services necessary not only for a good life, but even for survival. Thus Canada must trade.

Canadian trade depends directly on at least three key international factors: 1) a stable international regime that respects and encourages the free flow of people, goods, capital and ideas; 2) a set of international trading rules and conventions that allows Canadians a fair opportunity to sell into or buy from foreign markets; 3) the best access possible to the United States which is far and away Canada's largest customer and likely to remain so.

The more important Canada is thought to be in the international community - the more influential, the more powerful, the more capable of having measurable impact on international events - the easier it will be for the Canadian voice to be clearly heard in those international deliberations which will ultimately have the most impact on Canada itself. This is especially important regarding the deliberations of the one foreign government whose friendship is most important to Canadian interests – the United States.

Importance derives from power. Power can be “hard” – military – or “soft”, in which case it reflects factors such as economic capability, moral authority, cultural influence, etc. Hard and soft power are not mutually exclusive; many experts argue that they are most effective when used in combination.

The Canadian government has made an effort to maintain the nation’s stature despite the decline in resources it invested in the instruments of foreign relations by stressing Canada as a nation most suited to the use of soft power instead of hard power. In Canada, however, “soft power” was often claimed to be in contradiction to hard power and regularly defined as little more than “moral authority.” The adoption of this position by Ottawa coincided with the decision that Canada’s chief international aim was not to protect Canadian interests, but to export Canadian values.

Since some Canadians believe that there are fundamental differences in Canadian and American values, the adoption of a values-based foreign policy had a negative impact on the underlying tone of Canada-United States relations. At the same time, drastic cut backs in Canadian military capabilities reduced Canadian ability to join allies in fighting to sustain a liberal international regime and to play a significant role in continental defence, which is also defence of the United States homeland. Finally, cuts to Canadian aid and cuts to the Canadian diplomatic establishment have further reduced Canadian ability to stay in touch with key governments, make intelligent cases abroad for Canadian policies, and sustain an international reputation Canadians once had for being a generous people.

It is beyond the scope of this report to comment on what concrete measures ought to be taken in re-building the Canadian diplomatic establishment or revamping Canadian aid policy. As far as the Canadian military is concerned, however, this report takes it as a given that the Canadian military serves three purposes: the defence of Canada; the defence of the North American continent in cooperation with the United States; the defence of the liberal international regime of free trade, free peoples, and free ideas which nurtures Canada and reflects basic Canadian values. This trinity of tasks is mutually supporting. Each task is interdependent with the other two. The Canadian Forces must maintain the capability to do all three for the protection of Canada and its people, its sovereignty, its interests, and its sense of self-worth.

The deteriorating ability of the Canadian Forces to carry out any one of these tasks effectively, let alone all three simultaneously, has become a major sore spot in Canada-United States relations. Thus fixing the Canadian Forces is a prerequisite for mending fences with the United States as well as re-establishing

Canada's credibility to wield both hard and soft power in pursuit of its national interests and to protect its sovereignty.

Fixing the Canadian Forces will not be cheap. The state of the Forces has been allowed to deteriorate so far in both size and capital equipment, that considerable expense will be required to both rebuild for the immediate future and provide for the modernization that will be necessary to keep up with the United States, not in size, but in technological capability. For example, although the CF has some very new and very good equipment, much is old and nearing the end of its useful life. The Sea King Maritime Patrol Helicopter is the best but by no means the only example. A list of equipment that is currently within the last quarter of its lifespan includes Canada's four TRUMP destroyers, the M113 Armoured Personnel Carrier, most of the CC-130 Hercules medium range transport aircraft fleet, the two *Protecteur* class naval replenishment ships, and the CP-140 Aurora patrol aircraft. Some of this kit is currently being overhauled and/or upgraded, but the life spans of airframes and ships are limited. Old weapons systems are like old cars. They can be constantly repaired and put back on the road, maybe even retrofitted with some new devices, but they cannot take the place of newer, safer, more efficient, more economical, more technologically advanced vehicles.

Not only is new capital equipment required, so is a 25% expansion of the regular forces from the current 60,000 to 80,000. Force expansion will be expensive. Adding numbers to the CF will add the need for more uniforms, more base housing, better means of training to cope with more people, more kit, more contract employees to perform the non military tasks, etc. In the forces are expanded, the increases would be best spaced out over several stages lasting at least a half decade.

Increased defence spending is a *sine qua non* for a safer, more secure, more prosperous Canada, let alone a Canada that prides itself in doing good works. Canadian productivity depends on markets, on outlets for Canadian enterprise, genius, and productive capacity. Gaining the maximum access to those markets depends, in part, on international stature. Sometimes a better mouse trap isn't enough in a world that still values allegiance and friendship, and determines to take care of one's "own" before taking care of one's neighbours.

Shouldering more of the continental defence burden may not solve Canada's trade disputes with the United States – salmon, shakes and shingles, softwood lumber, live cattle, etc., - but it won't make those disputes worse and it might help solve them through better good will in more of the circles of power that make the key decisions in Washington.

Recommendation 1) The Canadian Forces are a vital instrument of national defence and sovereignty and a key implement for the achievement of Canadian national goals at home and abroad. A strong and modern military, designed specifically to meet Canada's security and foreign policy needs, will serve Canada's pride and Canada's interests. It is, therefore, incumbent on Canadian governments to ensure that Canada's military

forces are well-funded, equipped to the highest standards, and recruited and trained to fight alongside the best, against the best.

II) American Military Power Today

Today, the United States has an unprecedented position as a power. It is far stronger than any other country ever has been and it has no rivals at hand or in sight. Once there were small powers, medium and large ones. Now there is one great power and the rest. Since the cold war ended, United States administrations have found foreign relations problematical. In general, they have used four major approaches to international issues: the elder Bush's attempt to lead the world to a new order through old institutions; a multilateral Clintonian variant of the Bush Sr. policy; George W. Bush's initial move toward unilateralism, isolationism and a narrow focus on using American power to preserve its interests; pursuit of absolute security and *realpolitik* since the terrorist attacks of 9 September 2001.

The Bush administration's new policy assumes the world is full of threats, the United States may be the victim of surprise attacks, it believes its enemies now see weapons of mass destruction as weapons of choice. Thus the United States must develop ballistic missile defence (Ballistic Missile Defence) and Homeland Security. It must defend United States interests and world stability by assuring allies, dissuading future military competition, deterring threats and creating what the United States military calls full spectrum dominance or the ability to defeat all comers at all levels of conflict across the world. The United States, the only possible world leader, has the duty to block anyone from becoming a rival and to destroy any threat before it acts, unilaterally and preemptively, if need be. The Rumsfeld doctrine, that the United States can be credible only if it "rule[s] out nothing in advance—including the United States of ground forces", has replaced the "Weinberger" and "Powell" doctrines, which asserted United States forces should be committed to hostilities only if Americans were willing to pay a high price to further vital interests.

United States defence spending fell by 33% between 1989-2000, though it remained by far the world's largest, allowing it to greatly increase its lead over the pack. Meanwhile, the United States forced the pace of power by following the Revolution in Military Affairs. Crudely defined by the formula "precision weapons + IT=Revolution in Military Affairs", the idea is that good use of changes in technology can revolutionize armed forces, power and war. The United States pursues forces with "dominant battlespace awareness" and unparalleled flexibility of command, aiming for speed and the ability to get inside enemy's decision cycle before he is able to mount a coherent defence. It envisages a fine tuned machine, using netcentric warfare (i.e., forces organized via the internet), a "sensors to shooters" system and "one shot one kill" weapons, to strike targets precisely and immediately. This will require a large number of costly weapons and IT systems and trained personnel. Through the Revolution in Military Affairs, the United States plays its strengths in high technology against the weaknesses of most other states. To dissuade competition, it deliberately is raising the entry

cost for the Revolution in Military Affairs and thus for rivalry with the United States.

One must separate rhetoric from reality with the Revolution in Military Affairs, since exaggeration is central to its politics and to United States strategy. Advocates overstate the Revolution in Military Affairs to build their case for it, as the United States does to convince others they cannot threaten or match it. In fact, the Revolution in Military Affairs has done many things, but not everything. Wars in Iraq and Afghanistan suggest the Revolution in Military Affairs has multiplied United States strengths without reducing its weaknesses. It owns airpower and sea power; it can strike targets with unprecedented speed, range and precision and demolish most third world armies; its conventional units are among the world's best, matched by few others—the United States probably has over half of the world's best ground units; yet it is no better able than before to handle guerrillas, terrorists or peacekeeping. It can conquer countries better than control them. United States power has its limits, and it cannot solve all its problem by itself. The United States aims to be able to handle two major threats at the same time. At present, the needs to garrison Iraq and monitor North Korea absorb virtually all its ground forces. It could meet any third problem only by cannibalizing its forces or cutting its commitments elsewhere. Its ground forces and military budgets are unlikely to grow, nor its commitments and threats to shrink.

How far and fast the United States will pursue the Revolution in Military Affairs is unclear. All-out pursuit of the Revolution in Military Affairs will be costly, make existing and world-leading American forces obsolete, and perhaps force the United States into an arms race against itself alone. Much of the United States military opposes “transformation”, which will slow if the United States reduces its present share of GNP allocated to defence (3.5 %). That is likely to happen, unless there is an enemy in sight. Yet no matter how fast or far the United States moves, it will do more than anyone else, the only question being—by how much? By 2002, United States defence spending equaled the next 15 countries combined. No other military matches its reach or power. After the 2003 Iraq war, British and Australian defence officials questioned whether they could retain their positions relative to the United States without massively increasing their defence budgets.

The United States is defending itself and its interests; the world leader needs power. Still, its policy will create problems, in unavoidable and unintended ways. The Bush administration distorts the strength during the foreseeable future of possible rivals, especially China or of rogue states with Weapons of Mass Destruction. The United States aims to become absolutely secure, which will make everyone else subordinate. Its attempts to achieve these aims threaten others: “peacetime forward deterrence” is intended exactly to forestall conventional attacks on itself, while Ballistic Missile Defence may eliminate the ability of any state except Russia or possible China to use Weapons of Mass Destructions against the United States (which could still annihilate them). Other states may react to these dangers in ways which threaten the United States. Its attempts to defend itself against Weapons of Mass Destructions will drive others

to acquire them. Interventions abroad will create enemies which strike back. A world run by “coalitions of the willing” maximizes Washington’s bargaining position against everyone, foes or friends, but to counter such coalitions, other states may adopt alignments which challenge the United States.

Recommendation 2) A technologically advanced, well-equipped, well-trained, numerically robust, and combat-capable Canadian Forces is essential to good overall Canadian-American relations. Thus the CF must be financed, equipped, trained, and maintained in sufficient numbers as to be capable of helping the United States defend the North American Continent on land, at sea, in space, and in the air, and of helping to fight international terrorism and maintain international peace and democratic values.

Recommendation 3) To achieve this overall goal, the Canadian Forces must be funded at levels sufficient to support expansion of the current force and the purchase of required capital equipment. Future funding must be maintained at levels which will enable the CF to ensure cutting edge training of all its elements and command structures and to guarantee that major combat, logistics, and communications components of the CF are interoperable with those of the United States military.

Recommendation 4) Since the Canadian Forces cannot hope to match the United States military in the full range of the current Revolution in Military Affairs, it must identify the specific specializations it wishes to develop to complement or supplement United States requirements, such as the Navy has done regarding anti-aircraft protection capabilities for United States carrier battle groups.

III) The Canada-United States Defence Relationship in Historical Perspective

Canada’s current defence relationship with the United States can only be understood within the larger historical context of Canada-United States defence relations.

Formal Canadian-American defence relations date to August 1940 and the Ogdensburg Agreement between Prime Minister William Lyon Mackenzie King and President Franklin D. Roosevelt which established the Permanent Joint Board on Defence (PJBD). The PJBD is supposed to coordinate continental defence at the highest political levels, reporting directly to the President and the Prime Minister. After the Second World War the continental defence relationship continued with the adoption by both countries in early 1947 of PJBD Recommendation #37. The recommendation provided for a wide range of joint defence activities from weapons testing to exchanges of personnel, to joint planning. A number of other bodies were subsequently established including the Military Cooperation Committee in 1946 and the North American Air (now Aerospace) Defence Command (NORAD) in 1957.

Overall the post Second World War defence relationship can be said to have had four distinct phases. In the first, lasting from roughly 1945 to 1949, the Canadian north's strategic importance was recognized, but the Soviet Union possessed neither long range bombers nor atomic weapons. The second phase began with the first Soviet nuclear test in 1949 and the appearance of long range Soviet bombers with one-way capability to reach North American targets. In this period, Canada and the United States built three radar lines across Canada, the Royal Canadian Air Force acquired a significant anti-bomber capability and NORAD was instituted. Canada was a very important part of United States defence planning.

The third phase began in the early 1960s with the acquisition by both the United States and the Soviet Union Intercontinental Ballistic Missiles (ICBMs) and the Soviet achievement of nuclear parity with the United States. This was the era of Mutually Assured Destruction. Canada's importance to the United States diminished since no defence was possible against nuclear-tipped ICBMs; MAD itself was the defence.

This is now the fourth era; the post 9/11 world in which Canada has once again assumed tremendous importance in United States defence planning. Put simply, Canada is a portal to the United States and much of the infrastructure of the two nations is now intertwined, from the air traffic control network to the power grids that connect Quebec to the United States north east. The United States is vulnerable in, and through, Canada.

The United States has addressed some of its continental military vulnerabilities through the establishment in the fall of 2002 of NORTHCOM. NORTHCOM is an entirely American joint command responsible for the coordinated deployment of United States land, sea and air forces in coastal waters and on the land mass of North America. It joins a number of other long-established United States joint commands, some of which are regional such as CENTCOM (United States Central Command), SOUTHCOM (United States Southern Command), or USEURCOM, (United States European Command). The commander of NORTHCOM is also the United States Commander of NORAD while NORTHCOM's headquarters are co-located in Colorado Springs.

Recommendation 5) As a matter of decided policy, Canadian governments must play as full a part as is possible in the defence of North America and should stress that the most important mission of the Canadian Forces is not only to protect Canada, but also the United States also. Active measures must be taken, and new means actively sought, to ensure that Canada's coastal waters, airspace, and land mass be denied to those who would harm both countries.

IV) Canada's Defences Today.

Canada's defences are heavily dependent on the United States. By the start of 2003 Canada and the United States had entered into more than 2,500 military accords. There are currently over 80 treaty level agreements, 145 bilateral military or defence forums, and more than 250 memoranda of

understanding governing defence relations between the two countries. The entire apparatus governs joint defence activities of all types and gives the Canadian defence industry unprecedented access to United States technology, testing facilities, and markets. The most recent addition to the apparatus is the Canada-United States Joint Planning Group established in December, 2002. It is located at NORAD headquarters and is headed by Lt. General Eric A. Findley who is also the Canadian Deputy Commander of NORAD. It is composed of military personnel from both countries and is mandated to coordinate continental maritime surveillance and to prepare detailed contingency plans and mechanisms for emergency response by land or sea to attacks in North America. NORAD is still responsible for the air response. The Planning Group was specifically intended as an interim link between NORAD and the new NORTHCOM. It has a two year mandate.

The PJBD nominally continues as the highest level planning body for continental security at the political level. It recently celebrated its 60th anniversary. But although the Board is on paper as important today as it was in times past, there is a distinct feeling in American circles that it has not recently been treated as seriously north of the border as it continues to be to the south.

Since 9/11, Canada has moved to meet the new security threats to North America and to participate in the international campaign to destroy terrorism. The high point of these latter efforts was Operation Apollo, Canada's military response to 9/11. From the fall of 2001 to the summer of 2002 Canada deployed a full naval task force, transport and surveillance aircraft, special ground forces, and eventually a full army battle group, which participated in ground operations near Kandahar under American command, to Op Apollo. Currently Canada has committed some 1900 troops for two six months rotations to the NATO-administered International Security Assistance Force in Kabul.

The major limit to Canada's ability to deploy military assets either in continental defence or in overseas operations is the small size of the Canadian military and the state of some of its key equipment. For example, the approximately 9,000 personnel of the navy are not enough to operate all of Canada's ships; one destroyer is often "alongside" due to personnel shortages. The figures used here are for personnel not assigned to "purple" or joint staff positions – positions in which, for example, an army colonel might serve alongside an air force colonel and a navy commander in planning for a future operation of a particular type. There are also shortages in key trades. There are some 20,000 personnel in the army, but only 12,000 or so are designated as deployable. Given the military rule of thumb that only about a third of deployable forces can be fielded at any one time, Canada can only send one of its three regular force brigades overseas (approximately 4000+ troops), and that slowly because the military possesses only limited sea or air transport capability. Canada has no naval transports and some two thirds of Canada's mid-range air transport fleet, made up primarily of the CC-130 Hercules aircraft, are normally out of action due to maintenance. Only one of Canada's CF-18 fighter jets has been partially upgraded to allow it to participate in air operations with United States forces; the other 79 are being upgraded over the next three years. The

diminished fleet (Canada could once deploy over 130 of these fighters) will require a further upgrade between 2006 and 2010.

These factors and others severely limit Canadian defence capabilities. That has a direct impact on United States continental defence planning and an indirect impact on United States efforts to build “coalitions of the willing” for operations such as the war in Iraq, whether under NATO auspices or not. In the latter case Canada simply has very little it can contribute. Canada’s current defence posture undermines the nation’s most important international interest – good relations with the United States. That posture won’t change without the enunciation of a clear, long-term defence policy that responds to current and predictable realities and the additional resources required to fulfill that policy.

Recommendation 6) The government must put an end to interminable delays and arbitrary interludes between Defence White Papers. Such papers should be issued on a regular basis - at least every five years.

V) Possible options for Cost Efficiencies in the CF

Although rebuilding the Canadian Forces as a highly effective military serving Canada’s national interests will be costly, there are a number of policy options that should be explored for possible greater cost efficiencies. These include force structure reform, greater jointness, new command arrangements, greater reliance on reserve forces, a more consistent and cost effective approach to procurement.

1) Force Structure Reform

Little attention has been paid to the operational structure of the Canadian Forces since the unification of the forces in the 1960s. Part of the original aim of unification was to produce a single military in which land, sea and air elements or environments would train and fight together as needed. That was the purpose, for example, of placing Canada’s tactical fighter squadrons under the authority of Mobile Command (i.e., successor to the Canadian Army and precursor to today’s Land Force Command). By the late 1970s, however, that aim had fallen by the wayside. The structure of the Canadian Forces today is quite conventional and harkens back to the pre-unification era of an army, a navy and an air force. Other nations, especially but not solely the United States, have sought greater efficiencies in procurement, recruitment, training and operations through reform of all or parts of their military forces or by identifying specialization or niche roles that their militaries might perform to supplement the military capabilities of larger and more powerful allies. In effect, the Canadian Navy has specialized in developing its air defence capabilities for close to ten years. Canada should examine force structure reform as a means both of possible cost savings and greater operational efficiency.

2) Greater jointness:

“Jointness” means force integration. It can apply to the staffing, administration, training, procurement, recruiting, and operations of Canada’s

military forces, or all these operations at the same time. The United States Marine Corps is a true “joint” force with land, sea, and air elements operating together under a single command. Canada’s “unified” military is not (with few exceptions) joint. Greater jointness can improve operational effectiveness and introduce cost savings. A “joint” helicopter procurement project, for example, would aim to acquire a helicopter that could be used by both sea and land forces interchangeably. In a move to further joint procurement of weapons systems, the United States Department of Defense has now taken over responsibility from the individual armed services for developing new weapons projects from the idea phase onward.

3) New Command Arrangements

There has been no comprehensive study of National Defence Headquarters (NDHQ) as an operational force headquarters. NDHQ was a creation of the Cold War era when Canada’s chief overseas military responsibility was to generate forces for NATO. NDHQ’s operational or cost effectiveness as an actual command center has not recently been evaluated.

4) Greater Reliance on Reserve Forces

The bulk of Canadian reserve forces are deployed by Land Forces Command (the army). Some 20% of regular overseas army deployments is usually composed of reserves. The army is currently working to reform its reserves and align them more closely to specific army requirements, especially regarding domestic security and emergency response tasks. Yet even after the current phase of reserve reform plans are completed, the army reserves will still be too small, too under-equipped, and too under-trained to assume major operational tasks upon deployment without many months of additional pre-deployment training. If the army reserve were recruited, equipped, and trained to be Canada’s Main Contingency Force (or follow-on force), to be deployed within 90 to 180 days after initial deployment by the regular forces, greater savings and flexibility might follow.

5) More cost effective procurement

Major capital acquisitions must be planned years in advance and follow regular rotation schedules. It makes no economic or operational sense to replace an entire fleet of anything at one time, be it jeeps, trucks, frigates or fighter aircraft. Procurement is too important and too expensive not to be reviewed on a regular basis, yet no recent Defence White Paper has done that.

Recommendation 7) The rejuvenation of the Canadian Forces must include a thorough examination of alternative force structures, niche roles, and other reforms of the entire system of procurement, staffing, recruitment, training, and preparing for operations both to achieve greater cost efficiencies and to improve military effectiveness.

VI) Specific Canadian Defence and Security Issues.

1) Land Forces

The Canadian army today consists of some 20,000 men and women, organized into three mechanized brigades. Each brigade has three infantry battalions, an armoured regiment, and an artillery regiment, and other supporting arms and services. At first appearance, this seems a satisfactory organizational structure, an army able to train for a variety of roles, defend Canada, and despatch troops abroad.

The reality is far less satisfactory. First, there are three regiments - the Princess Patricia's Canadian Light Infantry, the Royal Canadian Regiment, and the Royal 22nd Regiment - each with three battalions. All are understrength, well-below their nominal strength of around one thousand. If a battalion is readied for service abroad, soldiers must be stripped from other battalions of the same regiment or, as the army has been doing for more than a decade, added to units from militia regiments. The reservists, trained up to regular force standards before deployment, have done well in operations, but unit cohesion is nonetheless weakened by last minute additions. This hinders readiness. So too does the posting of trainers to operations which delays recruits and specialists the chance to move into operational postings. This rebounds throughout the army.

Even more troublesome, until this past spring, none of the brigades had trained their units together, the sole way to test leadership, cooperation, and readiness, since the early 1990s. The 2003 exercise at Wainwright was the first opportunity for most senior officers to exercise field command. The brigades have become static formations, absorbed in the minutiae of administering leave rosters, and ordinarily only battle groups, formed around a battalion with added armour, artillery, or engineers, train together and only before deployment. What this means is that while individual skills remain good, the army's ability to act in large units is, the Wainwright exercise aside, untested. This is unsatisfactory.

The shortfall in army training is intended to be addressed when the Canadian Manoeuvre Training Centre is opened at Canadian Forces Base Wainwright in 2006. The Centre will be a computer based manoeuvre warfare training centre not unlike the British Army Training Unit, at Suffield Alberta or the United States Army and Marine Corps training centres in the American southwest. The army plans to permanently base advanced equipment there so that formations can leave their kit behind when travelling to Wainwright to train.

The army's tempo of operations has been much too high since the early 1990s. The army is currently over-extended with the equivalent of a battalion in Bosnia and almost two more just arriving in Kabul. The Bosnia contingent will be drastically reduced over then next 18 months, but the army will still be overextended by having had to support 3800 troops in Afghanistan in just a single year. Today most of the army's units are either serving abroad, just returning, or readying for service overseas. The tempo must be reduced or the army expanded. Since the former will leave the CF even more shorthanded in

the likely event of continued international instability, the latter course – expansion – is the only prudent one for Canada.

At all times, nonetheless, the army must be able to despatch a battle group abroad on short order on Canadian aircraft and Canadian ships, not charters secured on the open market--and follow this up with the rest of a fully-equipped brigade within 60 to 90 days. It must be able to sustain this force, providing reinforcements to replace casualties. It cannot achieve these modest goals today, and this is critical if the CF is to play a role in coalition forces abroad. For homeland defence, even quicker response is needed—the regular force must be able to move troops and equipment anywhere in Canada or North America with 24 hours. Even this is beyond the army's current capability. Should a natural or man-made disaster strike the BC lower mainland, for example, the nearest regular forces, stationed at CFB Edmonton, would be unable to deploy in strength quickly especially if key roads or rail lines were blocked. The reservists in the southern BC area would be difficult to muster in significant numbers and do not currently have either the training or the equipment to handle such a disaster.

The army's reserve, the militia, is the footprint of the army in the community and as such it is the military's first responder to homeland crises. The fact that there are no regular army units in British Columbia, Saskatchewan, Newfoundland, PEI, and Nova Scotia requires the reserves to be strengthened and much better equipped. Fortunately, reserve restructuring is reaching fruition and beginning to produce increased numbers of soldiers and specialists.

Nonetheless funding and equipment shortfalls affect every regular and reserve unit. Canada took its peace dividend well before the end of the Cold War, and for decades equipment renewal has lagged. Tanks are being taken out of service and will not be replaced. Self-propelled artillery is well past its "best before" date, and much of the wheeled vehicle fleet is falling apart. Spare parts are in short supply in every area. On the other hand, the army's new light armoured vehicles – the LAV-III - and its Coyote reconnaissance vehicles are top-of-the-line, and the new clothing coming into use should end embarrassments such as sending soldiers to Afghanistan in 2002 without desert-pattern clothing.

The Canadian Army needs more money, more soldiers, more training, and more equipment. At a minimum, units and training cadres must be brought up to strength by the addition of at least ten thousand men and women and training stepped up. This will cost upwards of \$500 million more a year. At the same time, at least \$2 billion a year for the foreseeable future must be found for new equipment and to improve quality of life for troops.

There is no easy fix for these problems. Canada needs an army for homeland defence and to serve the national interest abroad. This should not, this cannot, be done on the cheap any longer.

Recommendation 8) When the Canadian Manoeuvre Training Centre (CMTC) opens at CFB Wainwright the Canadian army should train at a much higher tempo, with larger formations, for both conventional and

asymmetric warfare, than it has been able to do since the end of the Cold War. To maintain the CMTC's effectiveness, its personnel establishment and its equipment should not normally be drawn upon for either overseas or domestic operations.

Recommendation 9) The Canadian Forces must, without delay, acquire strategic lift capability aimed at achieving the goal of sending a combat ready battle (battalion) group overseas, by air, on short notice (no more than seven days) to be followed by a full brigade, by sea, within 60-90 days.

2) The Coastal Maritime Force

Canada has world's longest coastline of 243,792 km on three oceans. It also has one of the largest Economic Exclusion Zones of 3.7 million square kilometres. Its ocean resources are used for a wide-range of activities including from maritime commerce, fishing, oil and gas exploitation, and tourism. Its coastal waters are a potential terrorist attack route into the United States. They are an actual route for drug and people smuggling and other illegal activity that threatens both Canada and the United States.

The monitoring of coastal waters is required for several reasons. Among these are the need to provide Search and Rescue for seafarers in distress; protection against illegal activities including smuggling (people and goods); protection against environmental degradation; the protection of Canadian economic resources such as fisheries. There have been occasions in the past when Canadian maritime forces have defended Canadian interests in its coastal waters. The dispute with Spain in the early 1990s over fish stocks is the best known example of such a requirement.

The tragic events of September 11, 2001 also drove home the need to protect Canadian coastal waters against terrorist activity that could emanate or pass through those waters for attacks on Canada or the United States.

The Canadian capability to fulfil these requirements is spread over a wide range of departments and governments. The Canadian forces rely on its coastal patrol vessels and maritime patrol aircraft for much of its reconnaissance capability. However, other larger units such as the frigates and destroyers can be called upon to provide assistance when necessary. The Canadian Coast Guard also maintains a fleet of vessels including a small number of aging icebreakers that are also used to patrol Canadian waters. On shore, several other agencies including the intelligence sectors of the CF, Canadian Security Intelligence Service and the Royal Canadian Mounted Police all cooperate to share information on maritime activities. There has always been close cooperation with the United States.

Since September 11, 2001 the Canadian Department of Transport was mandated to form the ad hoc Interdepartmental Maritime Security Working Group (IMSWG). It has been given \$60 million over five years for the development of domestic maritime security initiatives. The Working Group has also drafted a Memorandum to Cabinet in which weaknesses of the existing Canadian maritime security system are detailed. The major problem identified so far lies in the

collection and fusion of information. On the bilateral level steps have been taken to improve the existing ad hoc cooperation that exists between Canada and United States. The first step was the creation of the Joint In-Transit Container Targeting Teams that comprise officials from both countries who inspect containers in the major Canadian ports.

The major problem, however, is that while there has been improvement in coordination between Canada and the United States, there is still a vast shortage of maritime platforms from which Canada can protect its coastlines. The personnel of the CF, Coast Guard and other agencies are all highly trained and professional. Cooperation with the Americans is good and has been improving. But the sheer size of Canada's littoral waters and the vast amount of maritime activity that takes place there on a daily basis makes it very difficult to provide adequate surveillance and enforcement capabilities. Canadian coastal enforcement capabilities are small and aging. The 21 maritime patrol aircraft (CP 140 and 140A) are now 23 years old. Some refitting and upgrading of these aircraft is taking place, but the airframes will not last indefinitely. The Coast Guard's six large and medium size icebreakers are also between 34 and 16 years old. The need for major capital replacement expenditures is looming as an absolute requirement for future coastal surveillance and defence.

3) The Ocean (or Bluewater) Navy

The development of Canadian maritime forces for use overseas began in the First World War. Canada has continually built and deployed a navy that can operate vast distances from its coast line. This has been done to support its membership in wartime and peacetime alliances. This has created a Canadian navy that is professional, highly competent, has the ability to operate on almost any ocean, and has become one of the most flexible instruments for the pursuit of Canadian foreign and defence policy..

The current navy is built around the four rebuilt Tribal destroyers, twelve frigates, two replenishment vessels, twelve maritime coastal patrol vessels and four submarines. Also included as elements of Canadian maritime forces are Sea-King helicopters and Aurora maritime long-range patrol aircraft. Combined with the high standard of training, this gives Canada one of the most robust small navies in the world.

There are four primary characteristics of the use of Canadian maritime power overseas:

1) Continual support of Canada's commitment to multilateral institutions. The deployment of the navy is proving to be an increasingly popular means for the Canadian government to demonstrate its backing of the United Nations and NATO.

2) Reaching quickly beyond formal institutional obligations in times of crises. The commitment of almost the entire navy for Op Apollo (the war on terrorism) is the most recent and largest scale example of such action. Virtually every one of Canada's frigates and destroyers have been deployed to that theatre of operation at some point.

3) Strengthening interoperability with the United States Navy. The

continuing practise, first initiated in the mid-1990s, of attaching a frigate to an American aircraft carrier battle group has allowed the navy to access United States information and reconnaissance networks that are denied to virtually all other navies.

4) Further development of the task-group concept. A Canadian navy task group consists of 1-3 frigates, a destroyer, and a replenishment vessel operating as a unit. The task group allows the Canadian navy to operate independent of other navies if it so chooses. The group is also a “force multiplier” for each of the individual ships. The capability allows for a distinctively Canadian identity of naval deployments where such is necessary or otherwise desirable. It also has given Canadian commanders a lead position in multinational deployments, as has been demonstrated in the command position assigned to a Canadian during the first Iraq war and during the war in Afghanistan.

The ability of the Canadian navy to operate almost anywhere in the world provides Canada with several key advantages. First the inherent flexibility of sea power means that elements of the navy can be deployed very quickly. At the same time the ability of a ship to act as a self-contained unit means that these vessels can be deployed to a large degree independent of the shore requirements that either land or air units require.

The net effect of these strengths is to give Canada a unique ability to operate at a level that is usually reserved for only the most powerful states. Very few navies outside of the American, French, British, and possibly the Russians retain such capabilities. Canadian decision-makers are aware of this and have drastically increased the number of overseas deployments.

It is very expensive to operate a navy such as Canada’s. To achieve and maintain inter-operability with the United States Navy requires sophisticated communications and reconnaissance systems, high tech weaponry, well maintained sea going hulls and machinery and highly trained personnel. The navy’s small size also denies it the luxury (which is so characteristic of the United States Navy) to allow its personnel to focus so narrowly on one particular trade. Canadian ship board personnel are almost all multi-tasked Jacks-and-Jills-of-all-trades.

In addition, the high operating tempo of recent years has placed tremendous strains on both personnel and equipment. There is now a dire need for “down time” to allow personnel to train and recover. At the same time there is an urgent need to develop several key capital programmes. These include immediate replacement of the maritime helicopters (well past due), the imminent need to replace the replenishment vessels which are the heart of the navy’s task groups, and planning for the re-fitting or eventual replacement of the destroyers and frigates. It simply makes no sense economically or technologically to build or acquire an entire fleet at one time, then allow it to age and “rust out” in lock step. None of the world’s major navies follow this practise.

Recommendation 10) A national platform recapitalization policy for ships and aircraft must be developed. Canada needs to build or buy both new ships and new aircraft for the Canadian Forces and the Coast Guard

through a more rational procurement procedure aimed at avoiding mass rust-out of major equipment at the same time.

4) Continental Air and Missile Defence

There is no present threat of air attack on North America, though neither Russia nor China has stopped developing their air arms. The upgraded CF-18s, (of which Canada will eventually deploy eighty) can continue to fill the air defence role. Canada has invested some money in the development of the American-designed Joint Strike Fighter, and this might be a replacement for the CF-18s in the next decade. It is worthwhile to maintain a Canadian air defence capability because this is Canada's entrée into NORAD, and NORAD is Canada's main bilateral window into continental defence planning. Moreover, the aerospace defence alliance ensures Canada's continuing access to space-based surveillance from United States satellites.

There is a small credible threat of missile attack (ballistic or cruise) against North America, either from accidental launch or from a "rogue" state. The United States is putting huge efforts into developing a Ballistic Missile Defence to protect itself against such threats and, although Canada was invited to participate early on, the Chretien government delayed entering negotiations until early 2003. By delaying, Canada lost a share in deciding on basing and architecture. No final decision has yet been announced.

For Canada, the Ballistic Missile Defence issue is supremely political. The Bush administration, unhappy with Canada's Iraq War decision and mounting public manifestations of anti-Americanism in Canada, views the issue as a test of Canadian bona fides. Is Canada on-side or not? The Canadian government likely has come to view it similarly and will almost certainly decide to opt-in. The real question is whether Ballistic Missile Defence will be run out of NORAD or NORTHCOM. If the former, Canada will get a real share in those Ballistic Missile Defence decisions that still need to be taken and possibly even enhance Canadian clout in North American defence. This will be a test of Canadian negotiating skill and United States forbearance.

The Ballistic Missile Defence issue is ultimately about sovereignty. Many Canadians, sometimes including the government, believe sovereignty comes from having as little as possible to do with the United States. But the United States has a legitimate interest in defending itself and thus in threats that might approach it from Canadian air (and sea and land) space. As always (whether reluctantly or not) Canada will best serve its interests and its sovereignty by cooperating, by getting a share in the decisions, and by upgrading Canadian military capabilities thereby.

Recommendation 11) Whenever the United States views a particular defensive measure (such as ballistic missile defence) as vital for the defence of the United States, and proceeds with that project, Canada should consider an active and positive role in the project in order to best protect Canadian national interests.

5) Space

Outer space is vital to Canadian commerce, communications, and defence. Canadian outer space is also vital to the defence of the United States. Space is also perhaps the only means by which all of the geographic territory of Canada can be properly monitored. Canada needs security in outer space to be able to maintain communication both for its public and for its military services. Given its policy of overseas deployments, space based systems are by far the best means by which Canada can remain in contact with its forces.

Though a pioneer in certain aspects of space exploration most of the Canadian space capability was allowed to atrophy in the 1970s and 1980s even though successive defence White Papers recognized the need to provide better surveillance of Canadian territory. Instead Canadian governments focus their efforts on the development of niche roles in space (e.g. the Canadian built arm mounted aboard the United States Space Shuttle). They have also favoured the commercial use of space through the development of the RADARSAT series of satellites.

In 1985, The American Government invited the Canadian Government to participate in the development of its Strategic Defence Initiative (SDI). While the Canadian Government eventually declined the offer, it did allow Canadian companies to participate if they wished. More importantly the offer also led to the first official governmental examination of Canadian space security requirements. In July 1989, the Chief of Review Services tabled a report on Canada's defence space program. This report led to the creation of the Space Defence Working Group (SDWG), which developed a comprehensive defence space policy. Subsequently, the Directorate of Space Development (D Space D) was created in 1997 and placed under the Deputy Chief of the Defence Staff, the third-highest ranking officer in the Canadian Forces. In March 2002 the Department of National Defence announced development of its own surveillance satellite system, named Polar Star. However, Canada still remains largely dependent on the United States for use of its systems.

Canadian space technology is some of the best in the world. When properly supported Canadian researchers have demonstrated an ability to develop state of the art technology. One current example is the Canadian work being done on synthetic aperture radar (SAR). However, there are two major problems that make it unlikely that Canada will soon develop a truly independent space policy to meet Canadian needs. The first problem is the high cost of all space systems. The second and more problematic issue is found in the continued refusal of Canadian governments to seriously examine space policy from the perspective of Canadian and North American security needs. This is especially irresponsible in that the United States has viewed "space" as part of its battlespace for years as have virtually all of the world's significant military powers.

Given the obvious vulnerabilities of the Canadian economy to attacks on Canadian satellites, and the pressing need for up-to-date satellite surveillance of the entire North American land mass for security reasons, it is inconceivable that

Canada aspire to play a full role in North American defence without setting down a comprehensive Canadian policy on the “securitization” of space.

Recommendation 12) A national surveillance policy must be developed that coordinates Canadian security information gathering both inside and outside the country. The policy should aim to coordinate all of the means of intelligence gathering available to the government from the use of space surveillance to human intelligence. There is also a need to improve the ability to fuse the various sources of information so it can be acted upon in a timely fashion.

Recommendation 13) Canada must develop a comprehensive policy on the “securitization” of space without delay.

6) Interoperability

Interoperability is the capacity of the armed forces of one country to operate with those of another. If Canada’s military is to contribute effectively to either continental defence or American-led operations abroad against the enemies of the secular, democratic, market-oriented world, they must be able to operate together with the armed forces of the United States.

The air force has been cooperating closely with the United States Air Force for a half-century. Since 1957-8, NORAD has united the air defences of the continent under a single joint command, and Canadian procedures are closer to those of the United States Air Force than any other nation’s. Equipment obsolescence is hindering interoperability, however. The air force’s CF-18s are only now undergoing an upgrade (at \$10 million per aircraft) of communications and avionics that will permit them to work with United States fighters and reconnaissance systems.

The navy similarly has been working closely with the United States Navy for a half century, until the end of the Cold War primarily on anti-submarine warfare duties. The change in threat has altered this role, and the navy now operates in the Arabian Sea, the Persian Gulf, and elsewhere. Because Canadian patrol frigates are first-rate, they can work closely with the technologically sophisticated United States Navy. And because Canadian destroyers are large enough to house staff, Canadian vessels can – and do – command task groups, including American, Japanese, and other allied and friendly ships. This is a function of technology and skill, but the Canadian leadership role is threatened by the coming rust-out of our four remaining destroyers, the need for mid-life refits for the frigates, and the imminent retirement of the fleet’s last replenishment vessels. Without a rebuilding programme, the navy is on the cusp of losing its ability to work closely with the United States Navy.

Historically the army was the most reluctant to work closely with United States units. That has now changed. The present Chief of the Land Staff served a posting as deputy commander of a United States Corps, for example, and the Princess Patricia’s Canadian Light Infantry (the Canadian battle group assigned

to Op Apollo) served within an American division. In infrequent exercises, Canadians hold their own with United States troops, but there needs to be more and larger joint training efforts. The army also desperately needs to keep its equipment up to speed with the United States. The key to future interoperability is that all three services must keep pace with the Revolution in Military Affairs. If they do not, they will be left with low-end roles – if indeed they are to have any roles - in future coalition efforts.

Recommendation 14) The government should mandate that, consistent with the maintenance of a national character of the Canadian Forces, Canada's military should strive for inter-operability with United States military forces.

7) Command Institutions

NORAD is the only standing Canada/United States bi-national command institution. NORTHCOM is a United States-only command and will remain so. Like other United States regional commands, its mandate is the command of United States forces operating in a defined geographical area that overlies other non-United States territory. SOUTHCOM, for example, covers United States forces operating in Central and South America but completely excludes the military forces of the Central and South American nations. NORTHCOM in itself will not bring Canadian military forces under United States command. But NORAD does, in so far as continental air defence forces are concerned, and that is one reason why some sort of official relationship must be established between NORAD and NORTHCOM. The other reason is that NORAD commands air defence forces only and is not a joint command for maritime or land forces and is not, in itself, a planning body.

At present the Planning Group established in December 2002 supplements NORAD where maritime and land forces are concerned, bridges the gap between NORAD and NORTHCOM, and assumes the planning role for multi-phased, bi-national, continental defence. But the planning group is a stop-gap. Canada must either press for a new all-encompassing bi-national command structure or risk continual subordination and possibly irrelevance in overall continental defence.

One possible suggestion is to establish a dual overall command structure for North America that parallels the NATO/USEURCOM structure. All United States forces deployed in Europe fall under USEURCOM (or EURCOM). Their commander is the Commander-in-Chief, EURCOM. He is also, however, Supreme Allied Commander Europe (SACEUR), the commander-in-chief of all NATO forces. NATO has a command of its own, and so does EURCOM. The former is a multinational command, the latter is an American command. Those European forces designated as under the NATO umbrella are under the ultimate operational command of SACEUR, those which are not remain under the command of their own national authority.

Since the initial stages of the First World War, Canadian forces abroad have always fallen under the operational command of the largest partner in

whatever coalition Canada joined. At the same time, however, ultimate political control, as well as administrative control, has remained under a Canadian command authority. Such is the case now; the Canadian troops now in Afghanistan, for example, are ultimately under the operational command of the International Security Assistance Force commander, but under the political and administrative command of the Minister of National Defence, exercised through the Chief of the Defence Staff, via the Deputy Chief of the Defence Staff. Were a EURCOM/NATO system established for North America, Canadian forces abroad would operate under the designated coalition commander, as they do now, but those Canadian forces assigned to continental defence would ultimately be commanded by the commander-in-chief of the yet to be designated North American command

Recommendation 15) Canada should take the lead in seeking to establish an overall military command structure for continental defence that will bring all land, sea and air forces devoted to such defence under one new bi-national command system that will operate in tandem with the United States' NORTHCOM.

8) The Security Perimeter

One of the greatest challenges in the post 9/11 world is the protection of states' borders and their sovereignty against a threat that knows no borders and which uses the technology of globalization to attack at widely separated points around the globe.

This complicates the ongoing Canadian conundrum when confronting United States continental security needs: Canada cannot provide total defence of its own territory, nor provide complete safety to the United States, while maintaining current standards of social programs and the standard of living. Though the risk of American interference in Canadian domestic issues has always been low due to shared liberal democratic values, the United States search for security against international terrorism could lead to such intervention unless Canada meets United States expectations of what a good partner should contribute to continental security.

The new nature of the threat to the United States means that the entire perimeter of North America must somehow be protected. Although in general Canadian decision-makers have had a more limited view of the need to strengthen North American borders against threats, they have been forced to take the full range of United States concerns seriously since failure to do so could result in significant disruption of the north-south trade flow with major negative consequences to the Canadian economy.

The nature of all binding international agreements is that they involve the surrender of some degree of national sovereignty in exchange for larger purposes. Thus Canada's entry into agreements for the common defence of the borders of North America has resulted in surrendering small elements of Canadian sovereignty, however uneasily. One of the most successful examples of this is the development of the *Smart Border Initiative*. This is a multi-million

dollar initiative by which Canada has attempted to address American concerns of terrorists entering the United States through Canadian-American borders. Canadian officials, while sensitive to this possibility, have been more concerned about minimizing the disruption to the multi-billion dollar trade between the two states. Thus a system of pre-clearance that involves officials from both countries has been created. In effect, Canada has surrendered some decision-making capability (i.e., sovereignty) by allowing American officials to be involved in the screening of trade before it leaves Canadian territory. However, the benefit is that the economic dislocation between the two states is kept to a minimum.

There are other initiatives that are based on similar trade-offs. One of the more controversial is the development of the Joint Planning Group mentioned above in section IV. Some of the initiatives this group is working on will most definitely involve a surrendering of even more sovereignty by both states (possibly temporarily) in the event of a specific catastrophic event.

The ability of Canada to enter into agreements with the United States to protect North America's borders enables Canada to ensure that its economic security is protected and maintained at a very high level. These agreements also work to the United States' advantage in that they allow for the protection of its borders without serious inconvenience to American consumers or damage to the United States economy. The challenge to Canada will be to convince American leaders that it is in their interests to allow for continued strong economic relations in exchange for greater efforts by Canada to protect its own boundaries. There is always a danger that if these arrangements are not carefully monitored, Canadian interests could be negatively affected by the United States.

The basic challenge for Canadians is how to surrender as little sovereignty as possible by taking continental defence initiatives on their own and also to ensure that when the surrender of some sovereignty in some areas is absolutely required, it is done in such a manner that the overall national interest is actually enhanced by gains in other areas.

This leaves Canadian leaders with the need to consider the idea put forward by the former Canadian ambassador to the United States, Alan Gottlieb for the *Grand Bargain*. . So far the government has not seriously considered the possibility of such a "big idea." But whether or the eventual relationship between Canada and the United States is defined by one sweeping agreement or not, Canadians must convince the United States that Canada's vital interests are compatible with those of the United States. Canada must work to put arrangements in place that ensure it some opportunity for input in United States economic and security policymaking before United States domestic interests that are antipathetic to such arrangements can shut Canada out.

9) Terrorism, Weapons of Mass Destruction

Weapons of Mass Destruction can cause large-scale damage and immediate casualties, including large numbers of fatalities. Nuclear weapons, and high-quality chemical and biological weapons, are the focus of concern; less-capable chemical and biological weapons, and radiological weapons (including dispersals from breached nuclear facilities), may create local or large-scale

disruptions, but without immediate major loss of life. Weapons of Mass Destruction capabilities are becoming available, in at least crude form, to growing numbers of states and non-state actors. Nuclear explosives are well beyond the capabilities of almost any terrorist group, unless stolen, purchased or acquired with state assistance. The most sophisticated and well-funded groups could possibly produce high-quality chemical and biological weapons. Less-demanding disruptive weapons are within the reach of some terrorist groups, with some examples already known. Their production could draw on locally-available materials (e.g., chemicals, radioactive sources). Attacks on North America from outside are likely to be via smuggling (for non-state actors) or, for states, via aircraft and long-range ballistic missiles (which some states have or are seeking).

Most terrorist attacks in North America are likely to be domestic and “conventional.” Non-Weapons of Mass Destruction terrorist or similar activities in Canada would likely be local and small-scale (e.g., eco-sabotage in British Columbia). Aside from instances on First Nations reserves, the last major deployment of Canadian Forces in response to domestic terrorism was the October Crisis of 1970. However, catastrophic non-Weapons of Mass Destruction attacks are possible, as September 11, 2001 shows, and would require a scale of response similar to a Weapons of Mass Destruction attack. So far, terrorist Weapons of Mass Destruction threats have generally been hoaxes.

Currently, the Canadian Security Intelligence Service lists 31 international groups under scrutiny within Canada. More significant groups may use Canada for fundraising and other support activities (e.g. for secessionist efforts), but are unlikely to attack in Canada, or Canadians *en masse* (the Air India bombing is a significant exception, but no major re-orientation of Canadian thinking on responding to terrorism seems to have followed from this). Some groups, including those with Weapons of Mass Destruction hopes, might attack Canada (especially as an ally of the United States), or hope to use Canada as a base for access to the United States. Responding to these various threats is primarily a matter for law enforcement and surveillance agencies, but handling cross-border threats to the United States is crucial to our defence and wider relations.

At present the Canadian Forces may be used to protect certain sites (e.g., nuclear facilities). Other response assets could include the Joint Nuclear, Biological and Chemical Defence Company (in formation – currently the Nuclear, Biological Chemical Response Team stationed at CFB Borden), Disaster Assistance Response Teams; and regular and reserve forces. The Federal Government has other assets, as well. The most crucial immediate assets are local first responders, supplemented by locally-available regular and reserve forces. National assets require quick transport and the ability to co-ordinate effectively with local responders. The JNBCDC may ultimately consist of about 100 personnel, capable of providing a limited supplement to local and other agencies. It will be deployed at Trenton. Disaster Assistance Response Teams, each consisting of about 190 personnel, capable of operating for 30-40 days on largely an “outpatient” basis, are assembled on short notice. With equipment pre-positioned in Trenton, they deploy by Hercules or Airbus. First responders

(municipal police, fire and emergency services) will be trained at Suffield for chemical or biological incidents.

Although special army reserve units will eventually be trained and tasked to react quickly to domestic terror threats in coordination with these first responders, this capacity is only in the planning stages. Much remains to be done by way of forming such units and training and equipping them. Even then, there are still obstacles to their quick use, primarily in the form of antiquated legislation which still governs reserve call outs to aid civil authorities. Some changes to the legislation have been proposed by the government, but even if those changes are carried out, the basic legislative structure will still be in place.

Recommendation 16) Locally-available Canadian Forces response assets – essentially regular and reserve forces – should be adequately trained for response roles, promptly available to supplement trained local first responders, and able to co-ordinate effectively with local first responders on either side of the Canada-United States border.

Recommendation 17) Canadian Forces disaster national units – essentially the Disaster Assistance Response Teams and the Joint Nuclear, Biological and Chemical Defence Company of the Canadian Forces – must have adequate capabilities, be transportable quickly, and be able to supplement and work effectively with local first responders, other Canadian Forces response assets, and other Canadian Government departments. They should train regularly with their United States counterparts and be capable of instant deployment on either side of the Canada-United States border.

10) Cyberwar

Cyberwar may be defined as “defending and attacking information and computer networks in cyberspace as well as denying an adversary’s ability to do the same.”² Cyberwar attacks could be by individuals, groups or other states. Several examples exist, and cyberwar is now part of the military doctrine of several states. Attacks could come from within an affected organization or through the Internet. They may be undetected, indistinguishable from “ordinary” intrusions or from an indeterminate location. Their consequences could range from local to international, and from inconveniences to large-scale disruptions of information and other services or physical consequences if industrial processes and controls are affected. The military could face attempts to disrupt its C⁴ISR and administrative systems.

Responsibility for protecting computer systems falls especially on their users and owners, though some protective functions are found in the Office of Critical Infrastructure Protection and Emergency Preparedness (OC�PEP), and in the Communications Security Establishment’s (CSE) information technology security section (for government computer systems). The CSE is enhancing its

² Steven A. Hildreth, "Cyberwarfare," CRS RL30735, June 19, 2001, summary page

capabilities. Disaster Assistance Response Teams, regular and reserve forces could become involved in cases of significant physical consequences. Again, the ability to respond promptly and adequately, and to co-ordinate effectively with each other and with other agencies, is essential. The costs of intrusion defences and response capabilities could be very high, as might be the costs exacted by the attacks themselves.

As terrorist organizations may use the Internet to organize and fund their activities, and as other states might be vulnerable to cyberwar attacks, Canada might consider an offensive capability, again likely a high-cost undertaking. Whether defensively or offensively, Canada must co-ordinate with its NATO partners and with other interested states in preparing for cyberwar.

Recommendation 18) Designated Canadian Forces response units should be capable of acting quickly and effectively with United States agencies in cross-border situations. Canada should be capable of monitoring and controlling Canadian space, air, waters and borders effectively, in co-ordination with the United States. Adequate computer protection may also hinder both cyberwar attacks on Canada and use of Canadian networks as routes to attack the United States.

VII) Conclusions and Recommendations.

Canada is today uniquely exposed to a people of unparalleled power, bent on protecting itself. Canadian interests are not identical to American ones. American power can be a problem for Canada, less through intention than effect. The United States will not want to threaten Canadian vital interests, but its actions may well do so. If the United States makes enemies, they will surely become Canada's or seek to use Canada against the United States. If the United States pursues absolute security, that must include Canada. The Revolution in Military Affairs multiplies American reach and power and increases Canadian problems. Its entry costs are high. If Canada simply seeks to maintain the status quo in relation to the United States military it will need to replace most of its major weapons systems while also making major investments in IT and personnel to fit them and the CF for the Revolution in Military Affairs. This burden will magnify stresses between the services. The navy and to a smaller extent the air force can now operate integrally with the United States Navy and United States Air Force in selected areas, but will maintain that ability only at great expense. If the army seeks similar abilities, it may result in a small, high cost, and high tech land force, useful for cooperating with the United States, but not much else.

To follow the Revolution in Military Affairs will increase Canadian defence expenses; to ignore it will make the Canadian military its unintended victim. There is a historical parallel. The British naval Dreadnought revolution of 1905 and after was aimed at maintaining technical and qualitative naval superiority over Germany. At the same time, however, it rendered the French and Dutch navies obsolete at a single blow. The Revolution in Military Affairs, aimed at American enemies, could disable Canada by accident. If this happens, Canada

will be seen as a source of threat to the United States, and of contempt. Canada will pay for this failure in many ways.

Canadian defence policy fits the pre-9/11 world. The global environment has changed, so must Canadian policy. The CF must protect Canadian interests. In order to stand still, Canada must pay more; it can hardly let CF strength decline any further. Canada cannot become a security threat to the United States by default. Nor can it allow the United States to believe that it can simply disregard Canadian interests. If security trumps trade, Canada must learn how to win without trumps, or get some. Defence is a form of diplomacy. Canada must invest in areas of power where it can have a comparative advantage, where the United States needs help, and Canada can provide it, cost-effectively. The biggest lacunae in American power are its need for allies, and for power to occupy ground over the long term. Canada can help provide both.

Canada has a unique position as an ally—it is more essential than any other country to Ballistic Missile Defence and Homeland Security, the cores of United States security. Canada's armed forces are more compatible with American ones, and more integrated in key aspects of United States defence policy, than most other nations' forces.

Only a clear long-term policy will let Canada use its forces to defend its interests, and be a source of national strength, rather than weakness. Without such a policy, and the financial commitments that will go with it, Canada will face continual pressure to make expensive niche investments which suit this nation less than the United States – such as Ballistic Missile Defence – dissipating Canadian resources and putting disconnected bricks in a wall of wholly American design, instead of a cohesive and effective one of our own.

Recommendation 1) The Canadian Forces are a vital instrument of national defence and sovereignty and a key implement for the achievement of Canadian national goals at home and abroad. A strong and modern military, designed specifically to meet Canada's security and foreign policy needs, will serve Canada's pride and Canada's interests. It is, therefore, incumbent on Canadian governments to ensure that Canada's military forces are well-funded, equipped to the highest standards, and recruited and trained to fight alongside the best, against the best.

Recommendation 2) A technologically advanced, well-equipped, well-trained, numerically robust, and combat-capable Canadian Forces is essential to good overall Canadian-American relations. Thus the CF must be financed, equipped, trained, and maintained in sufficient numbers as to be capable of helping the United States defend the North American Continent on land, at sea, in space, and in the air, and of helping to fight international terrorism and maintain international peace and democratic values.

Recommendation 3) To achieve this overall goal, the Canadian Forces must be funded at levels sufficient to support expansion of the current force and

the purchase of required capital equipment. Future funding must be maintained at levels which will enable the CF to ensure cutting edge training of all its elements and command structures and to guarantee that major combat, logistics, and communications components of the CF are interoperable with those of the United States military.

Recommendation 4) Since the Canadian Forces cannot hope to match the United States military in the full range of the current Revolution in Military Affairs, it must identify the specific specializations it wishes to develop to complement or supplement United States requirements, such as the Navy has done regarding anti-aircraft protection capabilities for United States carrier battle groups.

Recommendation 5) As a matter of decided policy, Canadian governments must play as full a part as is possible in the defence of North America and should stress that the most important mission of the Canadian Forces is not only to protect Canada, but also the United States also. Active measures must be taken, and new means actively sought, to ensure that Canada's coastal waters, airspace, and land mass be denied to those who would harm both countries.

Recommendation 6) The government must put an end to interminable delays and arbitrary interludes between Defence White Papers. Such papers should be issued on a regular basis - at least every five years.

Recommendation 7) The rejuvenation of the Canadian Forces must include a thorough examination of alternative force structures, niche roles, and other reforms of the entire system of procurement, staffing, recruitment, training, and preparing for operations both to achieve greater cost efficiencies and to improve military effectiveness.

Recommendation 8) When the Canadian Manoeuvre Training Centre (CMTC) opens at CFB Wainwright the Canadian army should train at a much higher tempo, with larger formations, for both conventional and asymmetric warfare, than it has been able to do since the end of the Cold War. To maintain the CMTC's effectiveness, its personnel establishment and its equipment should not normally be drawn upon for either overseas or domestic operations.

Recommendation 9) The Canadian Forces must, without delay, acquire strategic lift capability aimed at achieving the goal of sending a combat ready battle (battalion) group overseas, by air, on short notice (no more than seven days) to be followed by a full brigade, by sea, within 60-90 days.

Recommendation 10) A national platform recapitalization policy for ships and aircraft must be developed. Canada needs to build or buy both new

ships and new aircraft for the Canadian Forces and the Coast Guard through a more rational procurement procedure aimed at avoiding mass rust-out of major equipment at the same time.

Recommendation 11) Whenever the United States views a particular defensive measure (such as ballistic missile defence) as vital for the defence of the United States, and proceeds with that project, Canada should consider an active and positive role in the project in order to best protect Canadian national interests.

Recommendation 12) A national surveillance policy must be developed that coordinates Canadian security information gathering both inside and outside the country. The policy should aim to coordinate all of the means of intelligence gathering available to the government from the use of space surveillance to human intelligence. There is also a need to improve the ability to fuse the various sources of information so it can be acted upon in a timely fashion.

Recommendation 13) Canada must develop a comprehensive policy on the “securitization” of space without delay.

Recommendation 14) The government should mandate that, consistent with the maintenance of a national character of the Canadian Forces, Canada’s military should strive for inter-operability with United States military forces.

Recommendation 15) Canada should take the lead in seeking to establish an overall military command structure for continental defence that will bring all land, sea and air forces devoted to such defence under one new bi-national command system that will operate in tandem with the United States’ NORTHCOM.

Recommendation 16) Locally-available Canadian Forces response assets – essentially regular and reserve forces – should be adequately trained for response roles, promptly available to supplement trained local first responders, and able to co-ordinate effectively with local first responders on either side of the Canada-United States border.

Recommendation 17) Canadian Forces disaster national units – essentially the Disaster Assistance Response Teams and the Joint Nuclear, Biological and Chemical Defence Company of the Canadian Forces – must have adequate capabilities, be transportable quickly, and be able to supplement and work effectively with local first responders, other Canadian Forces response assets, and other Canadian Government departments. They should train regularly with their United States counterparts and be capable of instant deployment on either side of the Canada-United States border.

Recommendation 18) Designated Canadian Forces response units should be capable of acting quickly and effectively with United States agencies in cross-border situations. Canada should be capable of monitoring and controlling Canadian space, air, waters and borders effectively, in coordination with the United States. Adequate computer protection may also hinder both cyberwar attacks on Canada and use of Canadian networks as routes to attack the United States.