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CANADA'S CAPABILITY RENEWAL

OPPORTUNITIES FOR INNOVATION AND COOPERATION

By/par

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ABSTRACT

Canada's Defence Policy Statement and Budget 2005 are notable in that they each represent a marked change from the status quo in Canadian defence. In the budget, Government promises an additional $12.8 billion to address military personnel and

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Geography has made us neighbors. History has made us friends.
Economics has made us partners. And necessity has made us allies.
Those whom nature hath so joined together, let no man put asunder.

- John F. Kennedy, to the Canadian Parliament, May 17, 1961

TOWARD A ROLE OF PRIDE AND INFLUENCE?

In early 2005, the Government of Canada released a new defence policy statement and a budget which significantly increases the level of funding for the Canadian Forces over the next five years. Both initiatives are important and notable in that they each represent a marked change from the status quo in Canadian defence. The last formal defence policy in Canada was the *1994 Defence White Paper*, a road map for defence planning that was immediately undermined by successive budget cuts and capital expenditure reductions throughout the 1990s. In Budget 2005, the Government promises an additional $12.8 billion for defence, dispensed over a five year period to address, among other things, military personnel and capability shortfalls. The new defence policy and additional resources are viewed by many Canadian analysts as coming at a critical point, when Canadian Forces capabilities and manning levels are seriously depleted; the commitment of Canada to traditional allies has been called into question and the tremendous demand for Canadian Forces in international coalition operations is unabated.

In view of Canada's current difficult relationship with the United States, the defence policy and funding allocations converge at an opportune time. Canada's refusal in 2003 to join the U.S. led "coalition of the willing" for combat operations in Iraq and subsequent withdrawal from Ballistic Missile Defence (BMD), juxtaposed with several

important bilateral trade and economic issues have severely strained Canada – U.S. relations. The cancellation of President George W. Bush's long-planned visit to Canada in May 2003 and subsequent hosting of the Australian Prime Minister at his Crawford, Texas ranch are symbolic of the chill between the two countries and potentially, changing U.S. priorities. The U.S.-Canada relationship did not warm up with a transition of leadership from Prime Minister Jean Chrétien to Paul Martin. Dwight N. Mason, a Senior Associate at the Center for Strategic and International Studies in Washington expressed a common U.S. sentiment when he characterised the BMD decision as "a lack of leadership by the Prime Minister and his Government … that will clearly have consequences."[1] This broad erosion of trust and confidence from our principal ally should not be ignored.

Compounding the relationship difficulties, lessons derived from alliance and coalition military operations in the past decade, most notably Operation Allied Force, clearly indicate a technology gap is growing between the United States and her allies with clear impact on the interoperability of coalitions and the conduct of military campaigns at the operational level.[2] With a defence budget of more than $400 billion[3] in 2005, the

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[1] Dwight N. Mason, "A Flight From Responsibility: Canada and Missile Defense of North America." Centre for Strategic and International Studies (CSIS); available from http://www.csis.org/americas/canada/050225_Mason.pdf; Internet; accessed 15 September 2005.

[2] Department of National Defence, B-GG-005-004/AF-000 Canadian Forces Operations (Ottawa: DND Canada, 2000), 1-5/1-6. The operational level of war is defined in Canadian, NATO and US Doctrine as the level at which campaigns and major operations are planned, conducted and sustained to accomplish strategic objectives within theatres or areas of operations.

[3] Anup Shah, "High Military Expenditures in Some Places," available from http://www.globalissues.org/Geopolitics/ArmsTrade/Spending.asp; Internet; accessed 15 October 2004. In 2004, the U.S. spent more for national defence and security than the next fourteen countries combined.

U.S. continues to distance itself from all others as it exploits the Revolution in Military Affairs

(RMA) to achieve "full spectrum dominance."[4] In stark contrast, given a defence budget last year of slightly less than $14 billion, and much of the country's capital equipment nearing the end of life-cycle, Canada must be creative and innovative to maximise military capability renewal with minimal resources.[5]

Is Canada able to rebound? Canada's 2005 Defence Policy Statement (DPS) declares "the Government has made a solid financial commitment to the Canadian Forces that is unparalleled in the past two decades."[6] The document calls for expanded bi-lateral arrangements with the U.S., a commitment to "develop new, innovative approaches to defence cooperation" and a recognition of "the importance of meeting threats as far away from our borders as possible, wherever they may arise." With the new policy and greater military investment, it is Canada's intent to pursue foreign policy goals and enhance its global status. To achieve the titular goal of the Government's overarching international policy, *A Role of Pride and Influence in the World* it is important to strengthen the confidence and trust of Canada's allies while generating the forces capable of sustaining an international commitment. To do so, the Government must address key areas of concern: depleted capabilities (capital equipment and personnel) and the growing

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[4] United States Department of Defense, *Joint Vision 2020*; available from http://www.dtic.mil/jointvision/jv2020a.pdf; Internet; accessed 15 October 2005. p.8. Full-spectrum dominance is "the ability of U.S. Forces, operating unilaterally or in combination with multinational and interagency partners to defeat any adversary and control any situation across the full range of military operations."

[5] Department of National Defence, "Budget 2004," http://www.forces.gc/site/reports/budget04/9903_e.asp; Internet; accessed 15 October 2005. The figure includes 500 million of new money for FY 04-05, approved in the 2005 Federal budget.

[6] Department of National Defence, *A Role of Pride and Influence in the World – Defence*, (Ottawa: DND Canada, 2005) Message from the Minister.

technology gap. Fortunately, novel opportunities exist for Canada to rebuild depleted military capabilities in key areas while directly addressing the critical shortfalls identified by the NATO alliance.

This essay argues that a Canadian Forces capability renewal strategy, which is open to innovative and cooperative ventures such as multinational frameworks for leasing, purchase and sharing with allies, can exploit new technology and enhance interoperability, while avoiding the significant financial burdens of capital equipment ownership. Although the personnel dimension of a military force is an integral component of capability and is discussed in some detail here, the paper will focus primarily on equipment and technology as they relate to force generation opportunities and interoperability in coalition operations.

The essay examines the nature and characteristics of coalitions, identifying the desirable qualities and weaknesses involved in combined operations. The Revolution in Military Affairs and the technology gap between nations are discussed for two reasons: to highlight the importance and cost of military interoperability within a partnership and to establish a foundation from which to discuss the capability commitments made by Canada and NATO allies. Finally, the paper will explore a cross-section of strategies and opportunities to rebuild the force, alone or in cooperation with key allies.

MILITARY COALITIONS

We have no eternal allies, and we have no perpetual enemies. Our interests are eternal and perpetual, and those interests it is our duty to follow. [7]

Henry John Temple

COALITIONS DEFINED

The pre-eminence of self-interest in foreign relations and military affairs is well understood by nations. History is replete with examples. In speaking about Operation Enduring Freedom, the war on terrorism in Afghanistan, General Tommy Franks, the Commander-in-Chief of U.S. Central Command (CENTCOM) said, "it does not make any difference what size or kind of contribution a nation gives. The first rule … is that every nation on this planet will do what it perceives to be in its own best interests."[8] Nations often enter into coalitions in response to a common enemy or a given threat but their primary objectives will be to protect national interests or achieve national aims.

Military alliances and coalitions are forms of partnerships which share many characteristics. Alliances, such as NATO are generally more formal, with broad and enduring objectives normally defined in treaties. Military coalitions tend to be less formal and *ad hoc*, formed in response to a specific set of circumstances and remaining in effect only for as long as they are required. The "coalition of the willing," formed and lead by the United States to topple the regime of Saddam Hussein and to help Iraq achieve representational government is a good recent example. Alliances and coalitions

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[7] Henry John Temple, 3d Viscount Palmerston (1784–1865) – Lord Palmerston, remarks were made in the House of Commons defending his foreign policy, March 1, 1848.

[8] "Point Blank: General Tommy Franks on Coalition Warfare," *Australian Army Journal* 2 no. 2 (Autumn 2005): 17.

both involve combined operations with two or more military forces and may be created from variables of purpose, character, composition and scope.[9] Compared to national forces, alliances and coalitions both require significant additional effort to lead, maintain and employ to best effect. Finally, both are dependent upon solid bonds of trust, cooperation and confidence. With regard to the focus of this paper, and given the many similarities of the two types of partnerships, for simplicity the term coalition will be used here to describe the two types of partnerships.

COALITION CHALLENGES

Nations may bring key elements of military power or capabilities to a coalition, but they also bring baggage. Large and small coalitions will engender diverse political and national goals, cultures, risk tolerance, languages, doctrine and capabilities. For example, when commenting on Prime Minister Disraeli's statement that "England does not like [sic] coalitions," General Sir Jack Deverell highlighted several of the difficulties inherent in maintaining a coalition when he stated,

> Because coalitions are difficult. Once you get them together (if you can form them) you then spend a lot of energy on keeping them together. There is an enormous bureaucracy in coalitions because you have to compromise, you have to seek ways in which a coalition can act in a unified way and not fracture or lose it's [sic] direction or momentum.[10]

Coalition members expect, to a greater or lesser degree, consensus decision making and a fair share of accolades and credit, the political capital that goes along with risk. In the

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[9] Robert W. Riscassi, "Principles for Coalition Warfare,"*Joint Forces Quarterly*, No. 1 (Summer 1993): 59.

[10] Jack Deverell, "Coalition Warfare and Expeditionary Operations," *RUSI Journal* 147 no. 1 (February 2002): 18. General Sir Jack Deverell was Commander-in-Chief, Allied Forces North Europe.

risk – reward continuum, countries expect to enhance their role in the world according to the challenges and efforts they undertake in international operations.

COALITION ADVANTAGES

If coalitions are so difficult to establish and maintain, why are such partnerships predominant in modern campaigns? Very nearly all warfare in the past fifty years included coalition operations. One must look back to the 1967 war in the Middle East to find an example to the contrary.[11] Even then, the Israelis had significant support from others, if not on the battlefield. Coalitions form as their members recognize a common enemy and to promote international acceptance for their actions. A partnership offers political and legal legitimacy as well as the advantage of greater firepower and wide ranging capabilities and skills. Even when a country is capable of unilateral action, a broad partnership of like-minded nations is preferable, in order to avoid international condemnation and to share the awesome burden and fear inherent in war.

Lessons learned from recent operations, most notably NATO's 1999 military campaign against Serbia, highlight the importance of trust, confidence and specifically, interoperability amongst member nations. Given the United States' overwhelming military dominance; preoccupation with the RMA and an ever widening technology gap, a tremendous pressure accrues to Canada and the NATO partners to modernize and remain relevant. The capability continuum ranges from the nation(s) who can operate across the full spectrum of war and military operations to smaller nations who are limited to modest forces or niche specialties. In effect, the vast majority of militaries today,

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[11] Effectively, the Arab nations were not able to respond in a coordinated, coalition fashion. In a rapid pre-emptive attack, Israel crushed the military forces of Egypt, Jordan and Syria and seized large amounts of land from each.

Canada included, have specialized to a certain extent. In specializing, a military force makes a choice to pursue a higher technological standard within a specific area(s) to protect national interests and serve as a national contribution to a coalition military campaign in a theatre of operations. Specialization of military forces will be discussed again in Part V of the paper.

RMA AND THE TECHNOLOGY GAP

UNITED STATES vs. WORLD

Are the notions of a "Revolution in Military Affairs" and the "technology gap" between nations real? In a Department of National Defence (DND) Policy Group report of 2000, Dr. Elinor C. Sloan described the Revolution in Military Affairs as,

> … a major change in the nature of warfare as brought about by the innovative application of new technologies which, combined with dramatic changes in military doctrine and operational and organisational concepts, fundamentally alter the character and conduct of military operations.[12]

The most recent description of the RMA centers on the concept of information dominance, sparked by rapid advances in information technologies and information processing capabilities. As force enablers, information technologies have the potential to transform traditional elements of military force leading to a decisive advantage in future warfare.

To understand the phenomenal extent to which the United States dominates the rest of the world in technology development, the U.S. will spend more ($69 billion) this

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[12] Directorate of Strategic Analysis, "The Defence Capabilities Initiative and US-NATO Relations: Responding to the Revolution in Military Affairs," Research Note 99/07 (Ottawa: DND Canada, 1999) p.1.

year for Research, Development, Test and Evaluation (RDT&E) of new capabilities than the entire defence budget of its closest military competitor, Russia.[13] Add to this enormous total a further $75 billion for capital acquisitions and the technology gap between the U.S. and all others becomes clearer. The significance of the gap is shown at Figure 1 which compares the overall defence spending of the U.S. against the next nine highest spending nations combined in 2002. In 2005, U.S. defence spending exceeds $400 billion. The gap is not measured in dollars alone, but also in battlefield performance.

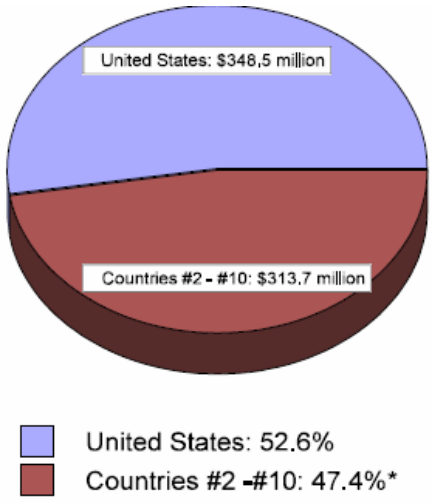

Figure 1 – U.S. Defense Expenditures as a percentage of the Top 10 Defense-Spending Countries, 2002.

Source: IISS Military Balance, 2003-2004, current year 2002 dollars.

LESSONS FOR NATO

The NATO air campaign to compel Slobodan Milosevic to cease ethnic cleansing in Kosovo was expected to last just a few days, yet it continued for two and a half months,

[13] Shah, "High Military Expenditures …," Russia spends $65.2 billion annually for defence.

revealing key concerns and areas for improvement in the alliance.[14] By most accounts, the air campaign is considered a great success in that it achieved the principal aims while demonstrating that NATO could respond to a crisis outside of its members' borders and still maintain the integrity of the alliance.[15] Precision-guided munitions were employed in large numbers to accomplish the most precise campaign ever, achieving unprecedented success in the reduction of collateral damage and zero allied casualties.

NATO's campaign against Serbia in Operation Allied Force (OAF) is instructive for Canada and NATO members. Although each of the 19 nations contributed significantly (airbases, airspace, infrastructure and military force) only thirteen countries flew. Other than the United States, only Britain and France even came close to contributing a full range of air assets, including what the U.S. describe as Low Density / High Demand (LD/HD) assets.[16]

The LD/HD designation applies to key mission support aircraft such as command and control (AWACS), air-to-air refuellers, suppression of enemy air defence (SEAD) and air lift. As represented in Table 1, the United States contributed more than two thirds

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[14] John Peters et al, *European Contributions to Operation Allied Force: Implications for Transatlantic Cooperation*. (Santa Monica: RAND, 2001), xiii.

[15] United States, Department of Defense, *Kosovo: Operation Allied Force After-Action Report*, (Washington, DC: U.S. Government Printing Office, 2000) xvii. The NATO objectives were to: demonstrate the seriousness of NATO's opposition to Belgrade's aggression in the Balkans, deter Milosevic from escalating attacks on helpless civilians, and damage Serbia's capacity to wage war.

[16] Donald Rumsfeld, "21st Century Transformation," Speech to National Defense University, 31 January 2002; available from http://www.defenselink.mil/speeches/2002/s20020131-secdef.html. As a testament to the U.S. commitment to technology, in a speech to National Defense University Donald Rumsfeld refers to the need to add "more of what the Pentagon has come to call low-density, high-demand assets, which is really a euphemism, in plain English, for our priorities were wrong and we didn't buy enough of what we need."

of the total aircraft in Allied Force, including ninety percent of the very specialized LD/HD platforms.[17]

Table 1 – Summary of Allied Aircraft Contributions to Allied Force

Country	Fighter/Bomber/Recce	Transport	Tanker	AWACS/AEW	Helicopter
Belgium	12 F-16				
Canada	18 CF-18				
Denmark	9 F-16				
France	12 Jaguar 3 Mirage IV-P 6 Mirage F1CR 8 Mirage 2000C 8 Mirage 2000D 4 Etendard IV P[a]	1 C-160	3 KC-135	1 E-3F SDCA	4 Super Frelon[a]
Germany	14 Tornado	1 C-160			
Italy	22 Tornado ECR/IDS 6 AMX 6 F-104 ASA 6 Tornado IDS 4 Tornado ECR/IDS 4 F-104 ASA		1 Boeing 707T		
Netherlands	18 F-16		2 KDC-10		
Norway	6 F-16	1 C-130			
Portugal	3 F-16				
Spain	6 EF-18	1 KC-130 1 CASA 212			
Turkey	11 F-16				
UK	16 Harrier GR-7 1 Canberra PR-9 12 Tornado 7 Sea Harrier FA-2[a]	4 L-1011	3 VC-10	2 E-3D	10 Sea King[a]

SOURCE: http://www.stratfor.com/crisis/kosovo/natoorderofbattle.htm.

[a]Indicates carrier-based aircraft.

NATO CAPABILITY INITIATIVES

Over and above the LD/HD imbalance, OAF exposed gaps in other key capability areas essential to combined operations , which then became the central justification for then U.S. Defense Secretary William Cohen's Defense Capability Initiative (DCI), adopted by NATO in 1999. Specifically, DCI was created to be a "common operational vision" with the intent to encourage European members of NATO to purchase more

[17] Peters et al, *European Contributions* … 23-24.

sophisticated military equipment. DCI focused "on four core capabilities: Mobility; Effective [E]ngagement; Survivability, and Sustainability."[18]

After disappointing results, DCI was repackaged in 2002 as the Prague Capabilities Commitment (PCC) which now provides Canada and the other NATO nations the opportunity to take the lead and share assets in a multinational framework of capability defence pools. Several interesting options have been proposed, and in true coalition fashion, certain countries are more aggressively pursuing their mandate than others. Canada did not take a leadership role in any of the key commitments; however, it is a potential partner in several of the initiatives. Of interest, PCC has also spawned dialogue and discussion of capability partnerships from outside of NATO.[19]

CANADA'S GAP

In some respects, Canada has been quite fortunate. As a product of our shared military history, much of Canada's military, equipment, doctrine and training are similar and interoperable with U.S. forces. The authors of a 2003 report prepared by the Canadian Defence and Foreign Affairs Institute cite more than 2500 Canada – U.S. military accords, with, "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."[20] Nevertheless, commonalities of tactics, techniques and

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[18] Basic Publications, "A Risk Reduction Strategy for NATO," available from http://basicint.org/pubs/Research/1999riskreduction5.htm; Internet; accessed 03 October 2005.

[19] In August 2005, a request for information from the Swedish Defence Attaché solicited Canada's interest in participating in a multi-national air lift partnership for procurement / leasing of C-17 Globemaster aircraft with European Union nations.

[20] Bercuson et al, "National Defence, National Interest: Sovereignty, Security and Canadian Military Capability in the Post 9/11 World," Canadian Defence and Foreign Affairs Institute Report to the

procedures developed out of common defence and security missions in the 70s and 80s are beginning to fade as Canadian equipment and systems become obsolete. In the report

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Canadian Council of Chief Executives, 2003 available from http://www.cdfai.org/PDF/CCCE%20Report.pdf; Internet; accessed 27 September 2005. 8.

of the 105th American Assembly,[21] held in February 2005, the United States will continue to view its security dimensions on a world-wide scale.[22] To that end, "an important component of the twenty-first century bilateral security and defense relationship will be the extent to which Canada can make useful military contributions beyond North America."[23] Given her limited capability to project force internationally, Canada is now in a precarious position vis-à-vis her relationship with the United States. The global dimension will be an interesting requirement for a Canadian military force in transformation, which is now further challenged to contribute in full and meaningful ways to domestic and bilateral security here in North America.

THE CANADIAN FORCES IN 2005

DEFENCE SPENDING

Although the bulk of the funding promised in Budget 2005 will not be realised until 2008-2010, it is still the most significant budget increase in twenty years. All considered the $12.8 billion dollars to be invested in the military is a significant amount

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[21] On February 3, 2005, seventy women and men from the U.S. and Canada, including government officials, representatives from business, labor, law, nonprofit organizations, academia, and the media gathered for the 105th American Assembly entitled "U.S.-Canada Relations." Co-sponsored by the Canada Institute of the Woodrow Wilson International Center for Scholars, the Canadian Institute of International Affairs (CIIA), and The American Assembly of Columbia University, the assembly was co-chaired by Allan Gotlieb, former Canadian ambassador to the United States and James Blanchard, former U.S. ambassador to Canada.

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[23] "U.S. – Canada," Report of The 105th American Assembly on U.S. - Canada Relations (Harriman, N.Y., 2005), 8.

of money and could go a long way toward reinvestment in critical Canadian Forces shortfalls. Nevertheless, it remains to be seen how much will be spent on re-equipping or providing capability for the Canadian Forces in the years to come. As presented in the Department of National Defence chart (Figure 2) below, in recent years Canadian Forces capital projects have received 16% or less of the total defence spending envelope, a figure which is approximately half of the roughly 30% which was spent on capital projects in the 1980s.

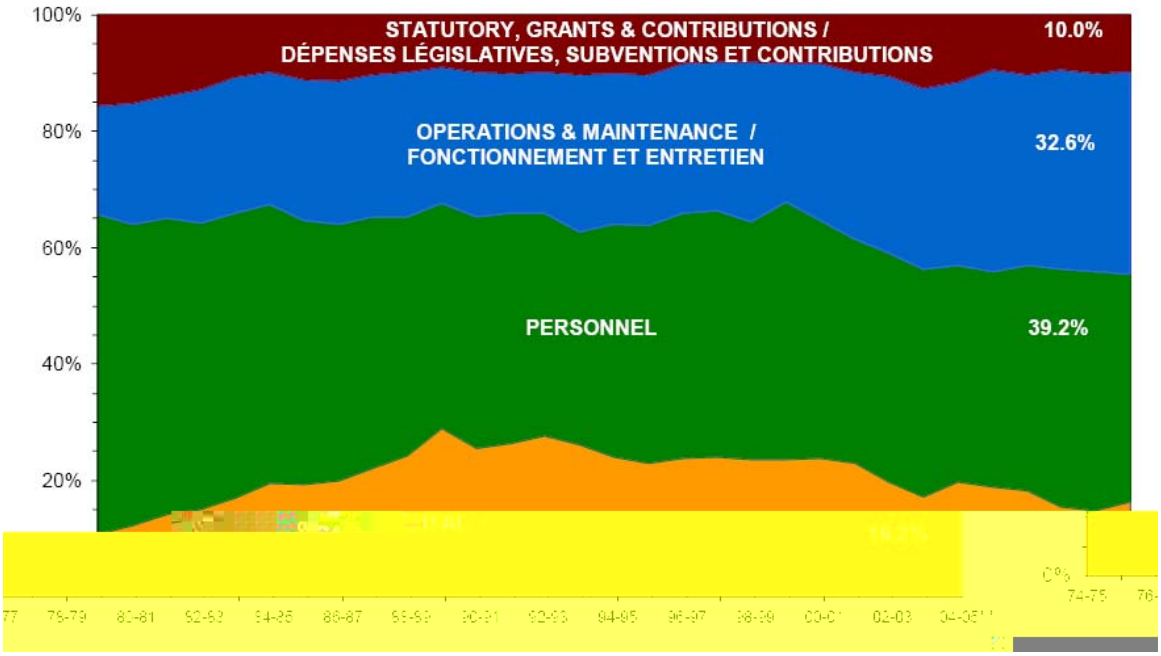

Figure 2 - Trend in DND Expenditures Breakdown

Source: National Defence Report on Plans and Priorities, Various Years

To further compound the problem, the Department of National Defence Economic Model equated the 2004 spending level with "a purchasing power roughly equivalent to that of the early 1980s."[24]

Although Canada's defence spending in 2004 ranked sixth in NATO; budget and personnel reductions, as well as capability shortfalls in the last fifteen years have not gone unnoticed by allies. The United States, averaging defence expenditures of approximately 4% of GDP throughout the 90s, has been shouldering the lion's share of defence and security costs for Canada and most other NATO allies since the late 80s. As may be expected, Canada's contributions to bilateral security and NATO have not impressed or generated great confidence. In the 2002 U.S. Department of Defense, *Report on Contributions to the Common Defense*, Canada was identified with those nations that spent less than the NATO average and, still worse, was singled out as the only country having …

> contributed less than its fair share in all four [categories of military forces]: active-duty military personnel, ground combat capability, naval tonnage, and combat aircraft capability.[25]

Describing Canada's traditional defence spending, Philippe Lagassé of the Norman Patterson School of International Affairs at Carleton University writes, "Parallel with Canada's minimalist approach to defence spending is a minimalist approach to capital expenditures … [which are] indicative of an armed forces' future capabilities."[26] Lagassé's observation is similar to that of Visiting Fulbright Scholar, Joel Sokolsky,

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[24] Department of National Defence, *Making Sense of Dollars* available from http://www.admfincs.forces.gc.ca/financial_docs/msood/2004-2005/MSOOD04_b.pdf ; Internet; accessed 15 October 2005, 41.

[25] U.S. Department of Defense, *Responsibility Sharing Report June 2002,* Report on Allied Contributions to the Common Defense available from http://www.defenselink.mil.pubs/allied_contrib2002/allied2002.pdf; Internet; accessed 02 October 2005. Chapter 1 p.3

[26] Philippe Lagassé, "Specialization and the Canadian Forces," Occasional Paper No. 40 2003 (Ottawa: Carleton University, 2003), 4.

Dean of Arts at the Royal Military College of Canada, who characterizes Canada's contribution to global security affairs and the deployment of troops overseas. "Except in times of world war Canadian political leadership has answered the question 'How much is enough' by posing another question, 'How much is just enough?'"[27] Canada's modest approach to capital reinvestment is an important reason to seek maximum "bang for the buck." Leveraging and the innovative use of each capital expenditure dollar are therefore extremely important to the Canadian Forces of tomorrow and will determine its role and influence in future coalition operations.

EQUIPMENT RUST-OUT AND RENEWAL

Given the level of funding; budget reductions throughout the nineties and the relatively small percentage allocated to capital programs (Figure 2), it is not surprising that a vast percentage of Canada's capital equipment is in serious decline today. Very considerable expenditure is now required to modernize or purchase new capabilities in nearly every aspect of the force. Notwithstanding that the intent and guidance of the Defence Policy Statement is not to "replicate every function of the world's premier militaries,"[28] if Canada is to maintain a prudent level of interoperability with the United States, the cost of re-equipping the Canadian Forces will be quite significant.

The list of equipment nearing obsolescence (Figure 3) includes fundamental maritime, air and land platforms such as: the four Tribal Class Destroyers, two Protecteur Class naval replenishment ships, Sea King helicopters, Hercules transport and Aurora maritime patrol aircraft, and the direct and indirect fire platforms – Leopard MBT / M109.

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[27] Joel Sokolsky, "The 'Away Game': Canada-United States Security Relations Outside North America," Institute for Research on Public Policy Working Paper no.2004-091, (Montreal: 2004), 3.

[28] DND, "Canada's International …", 11.

Several key platforms are undergoing modernisation at this time even though they have already surpassed their initial life cycle expectancy. Although modernising, the CF-18 will not be fully interoperable with F-22 and Joint Strike Fighter aircraft when they come on strength with U.S. forces at the end of the decade. The CF-18 Hornet's domestic air defence role with NORAD will be sustainable for some time; however, it will be increasingly difficult to operate in overseas campaigns with more sophisticated U.S. and European fighter attack aircraft.

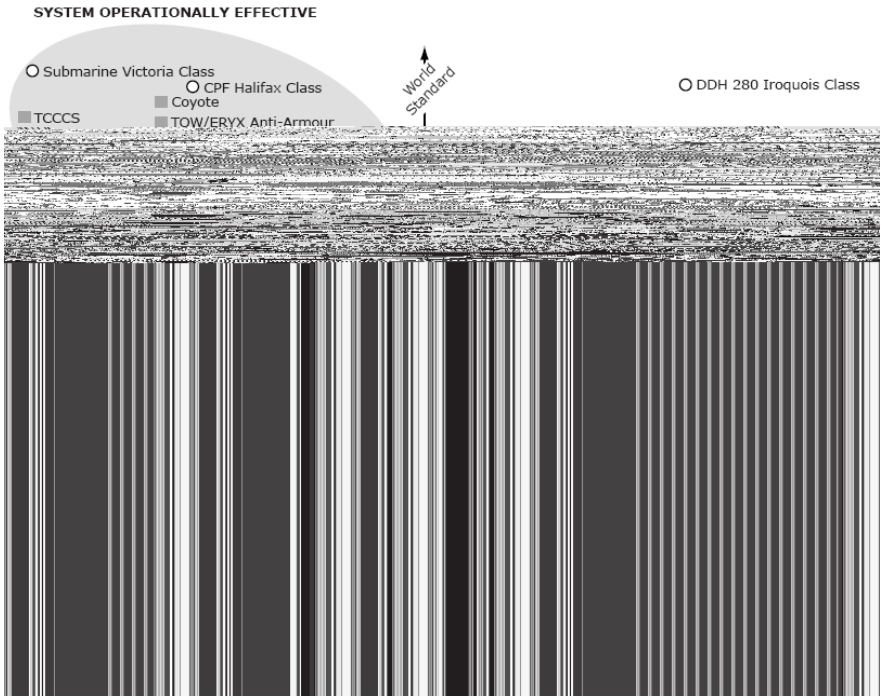

Figure 3 – The Two Dimensions of the Equipment Problem in the Canadian Forces

Source: Major-General (ret'd) Cameron Ross, The Future of Canadian Security Policy, Fraser Institute Policy Briefing (May 14, 2003).

Compounding the depleted state of Canadian Forces capital equipment is the intensely bureaucratic and time consuming means by which new equipment is acquired. The subject of many critical studies and analysis, including a section titled "The

Ponderous Pace of Procurement" in a Senate Committee on National Security and Defence (SCONSAD) September 2005 report,[29] capital acquisition processes are fundamentally flawed and take, on average, 16 years to complete for major programs. A 2003 report by the Canadian Defence and Foreign Affairs Institute also highlighted the problem with acquisition processes and recommended "a thorough examination of alternative force structures, niche roles, and other reforms of the entire system of procurement … to achieve greater cost efficiencies and to improve military effectiveness."[30]

OPS / PERSONNEL TEMPO

Although not the main theme of this paper, as an integral component of military capability, the status of Canadian Forces manning is discussed briefly. On average, the Canadian Forces' operational tempo from 1990 onwards has tripled its previous rate (see Figure 4). According to the Defence Policy Statement, Canada boasts the second highest percentage in NATO of deployed military members on multinational operations and sixth in terms of total numbers.[31] To understand how significant these numbers are, recall that the Canadian Forces' size is lower now than it has been since before the Second World War. Incidents of operational stress, fatigue and burn out have increased significantly in parallel with the period of extremely high deployments and for contingency and coalition

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[29] Senate Committee on National Security and Defence, "Wounded: Canada's Military and the Legacy of Neglect. Our Disappearing Options for Defending the Nation Abroad and at Home, Interim Report, September 2005," available from http://www.parl.gc.ca/38/1/parlbus/commbus/senate/com-e/defe-e/rep-e/repintsep05-e.htm; Internet; accessed 15 October 2005, 80.

[30] Bercuson et al., "National Defence …," 11.

[31] DND, "Canada's International …", 7.

operations. Looking ahead, the Chief of the Defence Staff has testified to SCONSAD that "there is no reason to believe that [the operations] tempo will be reduced."[32]

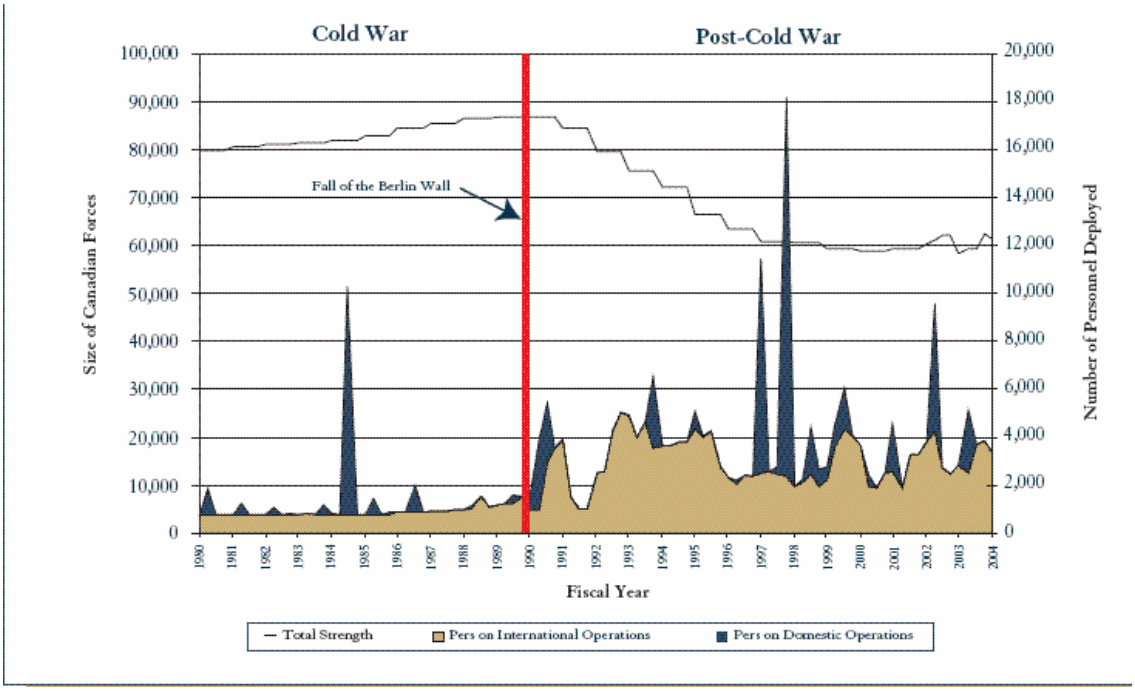

Figure 4 – Personnel Operational Tempo to Overall Strength, Increasing Demand vs. Falling Capacity

Source: A Role of Pride and Influence in the World. Defence.

The Government has authorized the Canadian Forces to grow by 5000 Regular and 3000 Reserve Force members in order to meet a campaign promise from election 2004. The additional 8,000 members are expected to accrue in large part to the land forces to meet the need for deployable soldiers in overseas theatres and missions such as Bosnia, Afghanistan and Haiti. According to the Vice Chief of the Defence Staff (VCDS), Vice-Admiral Ron Buck, the new recruits will not be fully engaged before 2009. In his December 2004 appearance before SCONSAD, the VCDS testified that "it would

[32] SCONSAD, "Wounded …," 14

take about five years to fully recruit and train the additional 5000 regulars and 3000 reserves."[33] The problem is that the force is too short of personnel to train such a significant cohort of new recruits and the infrastructure doesn't exist to quickly grow it.

According to several reports, sustaining the current pace of overseas operations will require more than a 5000/3000 increase. Serving members of the force have been burning the candle at both ends with unprecedented resolve, but the new personnel will provide only a small measure of relief for the land force and less for the air force or the navy, who are not even fully manned to operate all of Canada's ships.[34] Observers of Canada's military and a Senate committee agree that the Canadian Forces need to grow substantially to maintain the pace of operations. In 2003, the Canadian Defence and Foreign Affairs Institute recommended a twenty-five percent expansion of the force from its current strength to 80,000 members.[35] More recently, in its September 2005 report, SCONSAD argued for a force of about 90,000 (75,000 trained and effective) to break the burnout cycle.[36]

FALLING BEHIND

Two key ingredients in the dynamic that allow coalitions to work are the elements of trust and confidence. As formal defence partners since the Ogdensburg Agreement in 1940, the United States and Canada have cooperated in many ways, even as relations between the two countries ebb and flow. Today, Canada's relationship with the U.S. is severely strained. Canada's minimalist approach to defence and security in North

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[33] SCONSAD, "Wounded …,"73.

[34] Bercuson et al., "National Defence …,"9.

[35] *Ibid.*, 4.

[36] SCONSAD, "Wounded …," 14.

America and NATO, and refusal to participate in Iraq are seen as signs that Canada is retreating from its obligations.

Further, Canada's lack of support for key U.S. initiatives, notably Ballistic Missile Defence (BMD), has tested the bonds significantly. In February of this year, Dwight Mason of the Center for Strategic and International Studies in Washington defined the BMD decision in Canada as "an abandonment of some Canadian sovereignty." In the same month, a US-Canadian think-tank described the situation thus, "Canada faces daunting problems. As has been well documented, its diplomatic, defence and development assets have run down, lessening the country's influence in the world."[37]

THE WAY AHEAD

Should the Canadian Forces receive every dollar budgeted over the next five years, the organisation will still need to plan very carefully to achieve the broad capability improvements necessary "to remain capable of participating in a wide range of operations overseas, particularly when dealing with the complex, fluid and dangerous environment of failed and failing states."[38] The Canadian Forces must be prepared to sequence and prioritise the key capabilities required; seek economies of scale and cooperation wherever they exist and be prepared to specialise even more than we have in the past. Canada is in a position to exploit economies of effort in cooperation with the United States and key allies. National ownership of capital assets is still important where appropriate; however,

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[37] "U.S. – Canada," 105th American Assembly …, 4.

[38] DND, "Canada's International …," 28.

leveraging defence dollars to achieve key capabilities and interoperability is possible through new partnerships.

CAPABILITY POOLS

The Canadian Forces is poised to benefit from the additional resources of Budget 2005 at a time when like-minded allies are being encouraged by NATO to establish multinational frameworks to address important capability shortfalls within the coalition. The Defence Capabilities Initiative and, more recently, the Prague Capabilities Commitment (summarized in Table 2 below) represent exceptional opportunities for like-minded nations to cooperate. Over and above the economic incentives which may be realized, there is an added bonus in that participation virtually guarantees that partners will enhance interoperability (doctrine, processes and operational procedures) amongst each other while they address the technology gap in critical areas.

Table 2 – Summary of NATO DCI and PCC Elements

DEFENSE CAPABILITY INITIATIVE – DCI APRIL 1999	PRAGUE CAPABILITY COMMITMENT – PCC NOVEMBER 2002
Deployability / Sustainability	Strategic Lift (Air and Sea) Air to Air Refueling
Effective Engagement	Precision Guided Munitions
Survivability	NBCD and Mine Warfare
Command, Control and Information Systems	C2, Intel and Surveillance

Source: NATO Online Topics Summary of DCI and PCC[39]

[39] NATO, "Prague Capabilities Commitment. How did it evolve?" available from http://www.nato.int/issues/prague_capabilities_commitment/evolution.htm; Internet; accessed 15 October 2005.

The following section will briefly review a selection of ongoing capability initiatives in cooperation with the United States and NATO, which are of significant potential benefit to Canada:

Strategic Lift

The Canadian Forces is currently considering options for strategic sea and air lift. The capability requirement falls within the NATO initiative to broaden the availability of modern ships and aircraft capable of responding in minimum time to move troops and equipment around the globe. Canada does not currently possess either capability.[40]

Air Lift.

In the 2005 Defence Policy Statement, it was noted that the CF will "acquire, or ensure access to, the right mix of capabilities to meet the increasing requirements for domestic, global [strategic] and in-theatre [tactical] airlift"[41] The Strategic Air Lift Interim Solution (SALIS) involves Canada and ten other nations in a lease arrangement, which provides assured access to Antonov AN-124-100 aircraft, controlled in a central pool. SALIS is a temporary bridge until six European nations buy Airbus A400M aircraft in sufficient quantity to support NATO. Canada will then have to determine its next step, which may be continued lease or purchase of the C-17, Airbus A400M or Antonov AN-124. Additionally, in August, 2005, Canada responded to a request for information from the Swedish Defence Attaché staff, enquiring about Canada's interest in a C-17 procurement or leasing venture, pooled with European nations.

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[40] Canada's Airbus aircraft may be configured for limited strategic lift, but is unable to carry oversize cargo.

[41] DND, "Canada's International …,"14.

Sea Lift

For maritime operations, Norway has assumed the lead of a group of nine NATO nations, including Canada, committed to strengthening the Alliance's strategic sealift capacity. In 2003, the group acquired strategic sealift capacity through a combination of full-time charter and assured access contracts. The capability will be coordinated by a Sealift Coordination Center (SCC) based at Eindhoven in the Netherlands.

Air Refuelling

Also within the air mobility theme, Canada is currently committed to the conversion of two Airbus aircraft into strategic air to air refuellers. The first aircraft has been converted and number two is underway. A multinational option exists to cooperate with Denmark and Norway for lease or purchase of air refuelling capability. Of note, Spain is also pursuing the possibility of a multinational NATO unit for air refuelling, possibly modelled on the NATO AWACS Component in Geilenkirchen, Germany.

Precision-Guided Munitions

Canada is participating in a consortium led by the Netherlands, and including Denmark, Belgium and Norway with an aim to pool acquisition of precision-guided munitions.

Surveillance – UAVs

Canada is commited to "acquire unmanned aerial vehicles to support domestic and international operations."[42] In this regard, PCC extends the opportunity for cooperation with France, Italy, the Netherlands, Spain and Turkey.

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[42] DND, "Canada's International …," 14.

Canada-US Initiatives

Several initiatives are ongoing, or possible, with our neighbour, the United States. A lot has been written about the impact of Canada's late decision to opt out of Ballistic Missile Defence. It remains to be seen whether, as Mason forecast, there will be consequences. Clearly, if there are to be repercussions, any of the following key opportunities could be affected:

Binational Planning Group (BPG). The BPG has been extended until May 2006. Its mandate is to develop cooperation between the U.S. and Canada to respond to maritime and land-based threats. It remains to be seen whether the products of BPG will be included in NORAD renewal or, indeed, take a new form.

NORAD Renewal and Enhancement. Lieutenant-General (Ret'd) George Macdonald, a former Deputy Commander-In-Chief of NORAD and Vice Chief of the Defence Staff at National Defence Headquarters in Ottawa, promotes the idea that NORAD should be considered as an obvious, but not exclusive structure within which to expand outside of the air and space realm. While acknowledging the potential loss of trust over BMD, he argues that greater bilateral cooperation is possible in the areas of maritime security, land force capabilities, cross-border operations, disaster response and response to cyber threats.[43]

Joint Strike Fighter. In February 2002, Assistant Deputy Minister for Materiel, Alan Williams signed an agreement committing Canada to participate in the Joint Strike Fighter (JSF) system development and demonstration phase. The agreement is for a ten

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[43] George Macdonald, "Canada-US Defence Cooperation: Where to from Here? Building on Strengths, Understanding Each Other, Expanding Horizons," *Canadian Military Journal*, (Summer 2005), 9-10.

year period and, according to Mr. Williams, "will enhance interoperability with U.S. and allied forces, and will provide opportunities for Canadian industry to participate in this cutting-edge aerospace project."[44]

SPECIALISATION & NICHES

Specialisation of military capabilities is not a new concept. A military force, unable to maintain capability across the full spectrum of operations has, by definition, specialized to a greater or lesser extent. Indeed, one could say the Canadian Forces have been specializing from the very first days of their existence – perhaps in more limited ways now than at any time in the recent past. In the late 1990s the concept of "niche" specialisation was popularised as a strategy for less wealthy countries to contribute in smaller ways to a combined operation as part of a wider coalition. The concept of "niche" implies a very narrow and specific specialisation pursued by a nation for the benefits to itself, or as a cost effective method to contribute meaningfully to a coalition. NATO's new nations were offered several options under DCI, then PCC, to select a valuable capability where they could focus resources to best effect and interoperability. Canada has that option as well.

Although most Canadians might not be aware, Canada is already recognized as a specialist in several key areas. Consider the key roles Canada is likely to be asked to bring to a coalition operation overseas. According to Bercuson et al., the Coyote Reconnaisance Vehicle and LAV-III, the Navy's air defence capability and certain space-related technologies, centred on the CANADARM and RADARSAT, all represent

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[44] United States, Department of Defense, "U.S., Canada Sign Agreement on Joint Strike Fighter," News Release available from http://www.defenselink.mil/releases/2002/b02072002_bt060-02.html; Internet; accessed 18 October 2005.

emerging Canadian specialties.[45] *Canadian American Strategic Review* editor, Diane DeMille includes Joint Task Force 2 as well as the Hercules and Aurora aircraft to her list of Canadian assets the U.S. would most likely consider valuable.[46]

MULTI-NATIONAL UNITS

As referred to above in the discussion of air refuelling, there are also new options under consideration which combine manning and assets to form coalition units. The concept of a multi-national NATO or coalition military unit is not new. The earliest formed units appeared in NATO more than forty years ago. Allied Command Europe Mobile Force (Land) was stood up in 1960 with forces from four countries. When disbanded in 1999, seventeen allied nations were contributing. Described by Supreme Allied Commander Europe, General Joseph W. Ralston, the unit "was an idea well ahead of its time."[47]

Another example of a proven multinational unit is the NATO Airborne Early Warning Force flying E-3A Airborne Warning and Control Aircraft (AWACS). Originating in the early 1980s and based in Geilenkirchen, Germany, the NATO AWACS Component is a mature and proven partnership with significant contingency and combat operations experience. NATO member nations contributed the original capital costs and pay annually for operations and maintenance of the unit. The personnel are contributed by the allies and serve at NATO Air Base Geilenkirchen but deploy widely on

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[45] Bercuson et al., "National Defence …,"13-18.

[46] Dianne Demille, "Can DND use its new budget to re-invent the Forces?" Canadian American Strategic Review (CASR) available from http://www.sfu.ca/casr/ft-niche.htm; Internet; accessed 18 October 2005. 1.

[47] NATO, "Allied Command Europe Mobile Force (Land) Disbanded," Press release 30 October 2002, available from http://www.nato.int/shape/news/2002/10/n021030.htm; Internet; accessed 18 October 2005.

operational missions. Significant past NATO AWACS operations include surveillance and air battle management in the evolving missions over the Former Yugoslavia, Operation Allied Force (Kosovo) and Operation Eagle Assist (United States) – NATO's first invocation of Article 5. A significant product of this type of cooperation is the inherent access countries gain in decisions regarding such a key force and the development of very advanced skills and knowledge of airborne battle management. The same could be said of a similar type of unit based upon another force capability.

Currently, opportunities exist for Canada and other nations to contribute primary participants or liaison officers / observers to units such as the NATO Response Force, the Eurocorps and EU Rapid Reaction Forces. If Spain's initiative is successful, it is also conceivable that a multi-national (or NATO) unit may eventually be stood up along the NATO AWACS model to provide air refuelling for coalition members in peace and war.

CAPABILITY CRITERIA

To close out this part of the essay, there are several variables which must be considered in the larger acquisition strategy. To get maximum leverage from each decision and investment, Canada must consider the following in light of each capability option: Is the technology leading edge but not cost prohibitive? Does it enhance interoperability with the United States? Are there cost efficiencies, sharing or cooperation options? Are there Defence industrial spin-offs for Canadian industry? Finally, does the program lead to enhanced access to decision making and information at the strategic and operational levels?

CONCLUSIONS

Canada's Defence Policy Statement and Budget 2005 arrive at an important juncture for the Canadian Forces. Many analysts would say that the new budget and Government guidance are too little and come too late to make a significant difference. More than eleven years have passed since the last Defence White Paper and a decade and a half of budget cutting has severely reduced the Canadian Forces' overall capabilities. Rebuilding Canada's military and restoring the confidence and trust of allies and partners, in North America and abroad will take a concerted effort.

Fortunately Canada's renewed focus on defence converges with a unique period of opportunity. Many middle level and smaller militaries are suffering, as Canada is, from budget cuts and equipment decline. The exceptional frequency and complexity of international coalition operations since the end of the Cold war has exposed weaknesses in nearly every one of Canada's allies. In the wake of Operation Allied Force, NATO has put forward a concerted effort to induce and coordinate a build-up of key capabilities that members could bring to future combined operations.

Canada has traditionally taken a modest approach to defence spending, a national practice that is unlikely to change, notwithstanding Budget 2005. Capital spending remains low, at approximately 16 percent of the defence budget, while the majority of Canada's major military platforms and assets near the end of life cycle. As stated in the defence policy, Canada will not generate forces for every role at all levels of war, therefore specialization of Canada's military forces to meet demands for domestic and international operations is a reality. Whether or not the new defence budget will restore

capability in all, or only part of Canada's traditional roles remains to be seen; however, exploiting NATO's key capabilities plan makes sense for several reasons.

By cooperating with allies in multi-national schemes and frameworks, Canada gains a unique opportunity to renew and equip, while staying current with technological advances and interoperable with allies. Ongoing NATO capabilities initiatives, centred on the Prague Capabilities Commitments, as well as unsolicited proposals and bi-lateral cooperation opportunities represent new ways of doing business that warrant careful consideration. Canadian capital funding need not be tied up exclusively in ownership of costly assets when lease and cost share alternatives can promote innovation and cooperation.

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