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# Major Defence Capital Equipment Acquisition

## A Review of the Defence Capital Equipment Acquisition Process and Recommendations for Procurement Efficiency Improvements

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To my parents, Fred & Sylvia, who provided me with a sanctuary on the weekends away from Ralston Residence.

To Gina B.

# ABSTRACT

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In 1989, upon the fall of the Berlin Wall, the World changed. The USSR was no longer viewed as a threat to Western democracies and the requirements for large standing armies was raised for debate. Soon came calls for a "Peace Dividend" and reallocation of limited tax dollars from National Defence to other governmental priorities. As a result, the 1990s witnessed reduced Canadian military budgets and a general decline in defence capabilities. As the 1990s came to a close it was realized that the world was no safer than before the wall fell in 1989. Defence budgets began to increase in 1999 with a view to procuring/maintaining needed capabilities.

Despite these increases in funding, issues with the equipment procurement process have resulted in the inability to acquire equipment in a timely manner to meet Canadian Forces operational requirements. Issues such as the complexity of the process and the involvement of multiple players, who often have diverging interests, can prolong the acquisition cycle time. Additionally, facts such as political influence, the demand for regional economic benefits, equipment cost and funding, personnel shortages, and organizational inertia, can cause delays or even cancellation in capital equipment projects.

A number of initiatives to reduce acquisition cycle times have been developed and implemented over recent years. Despite the changes and recently announced increases to the Defence budget, however, the current acquisition process can be further improved to more effectively meet the needs of Canadian Forces operational requirements. Improvements in the process will require that DND work closely with external organizations to improve cooperation and coordination. At the same time, DND must openly accept a degree of risk in its capital acquisition plans and develop its programs to mitigate the identified risk.

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## ABBREVIATIONS

| | |
|---|---|
| **AA** | **Accrual Accounting** |
| **ADM(MAT)** | **Assistant Deputy Minister - Materiel** |
| **AOR** | **Ammunition, Oil Replenishment** |
| **AG** | **Auditor General (of Canada)** |
| **C2** | **Command and Control** |
| **CAIT** | **Canadian Agreement on Internal Trade** |
| **CBP** | **Capability Based Planning** |
| **CDAI** | **Conference of Defence Associations Institute** |
| **CDS** | **Chief of Defence Staff** |
| **CF** | **Canadian Forces** |
| **CJTL** | **Canadian Joint Task List** |
| **COTS** | **Commercial Off-the Shelf** |
| **CPF** | **Canadian Patrol Frigate** |
| **CRP** | **Civilian Reduction Program** |
| **CRS** | **Chief of Review Services** |
| **DM** | **Deputy Minister** |
| **DMS** | **Defence Management System** |
| **DND** | **Department of National Defence** |
| **DP&M** | **Defence Planning and Maintenance** |
| **DPC** | **Defence Procurement Canada** |
| **DPMS** | **Defence Programme Management System** |
| **DSP** | **Defence Services Program** |
| **FRP** | **Force Reduction Program** |
| **GAAT** | **General Agreement on Tariffs and Trade** |
| **GDP** | **Gross Domestic Product** |
| **HMCS** | **Her Majesty's Canadian Ship** |
| **JCRB** | **Joint Capability Review Board** |
| **JSS** | **Joint Support Ship** |
| **LAV** | **Light Armoured Vehicle** |
| **MND** | **Minister of National Defence** |
| **MOTS** | **Military Off-the Shelf** |
| **MR** | **Miscellaneous Requirement** |
| **NAFTA** | **North American Free Trade Agreement** |
| **NATO** | **North Atlantic Treaty Organization** |
| **NSSC** | **National Security Studies Course** |
| **O&M** | **Operations and Maintenance** |
| **OGD** | **Other Government Department** |
| **PC** | **Progressive Conservative** |
| **PCO** | **Privy Council Office** |
| **PM** | **Prime Minister** |
| **PMO** | **Prime Minister's Office** |

| | |
|---|---|
| **PML** | **Preferred Manning Level** |
| **PRICIE** | **Personnel, R&D, Infrastructure, Concepts, Information Technology Infrastructure, Equipment** |
| **PWGSC** | **Public Works and Government Services Canada** |
| **SCIP** | **Strategic Capability Investment Plan** |
| **SCONSAD** | **Standing Committee on National Security and Defence** |
| **SCONDVA** | **Standing Committee on National Defence and Veterans Affairs** |
| **SOR** | **Statement of Requirements** |
| **TB** | **Treasury Board** |
| **UN** | **United Nations** |
| **US** | **United States of America** |
| **USN** | **United States Navy** |
| **USSR** | **United Soviet Socialist Republic** |
| **VCDS** | **Vice Chief of Defence Staff** |
| **WTO** | **World Trade Organization** |
| **WWII** | **World War Two/Second World War** |

# CHAPTER 1

## INTRODUCTION

> ***…acquisition for an amphibious ship will not be dragged out like the one for the new maritime helicopter. The troops need it. They need it now, not 15 years from now, not 10 years from now, not even five years from now. They need it as soon as possible***.[1]
>
> *General Rick Hillier, Chief of Defence Staff*

### Background

In 1989 the Berlin Wall fell. This single incident, which would mark the beginning of the end for the United Soviet Socialist Republic (USSR) as a major military power and a peer of the United States of America (US), would change the world from that which we had come to know since the end of the Second World War (WWII) in 1945. Seemingly overnight, based upon seeming superficial reflection, the world had become a safer place to live, as the Russian "Bear" was no longer a military threat to Western democracy and lifestyles. Almost immediately thereafter, there emerged a demand for a 'Peace Dividend'.[2] After all, now that the Russian military threat was gone there seemed no logical reason to expend significant amounts of money on expensive military equipment and personnel.[3] Standing militaries are expensive to maintain and competing

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[1] Sharon Hobson, "Plain Talk," *Canadian Naval Review* Volume 1, Number 4 (Winter 2006), 28.

[2] "Peace Dividend" argued that military strength was irrelevant in the wake of the demise of the Soviet Union in 1989 and that resources traditionally directed to the procurement of defence capabilities could be diverted to other National priorities such a reducing the National debt or increasing social welfare programs. Standing Committee On National Security and Defence, 38th Parliament – 1st Session. Canada's Military and the Legacy of Neglect: Our Disappearing Options for Defending the Nation Abroad and at Home (Ottawa, 2005), 15.

[3] As an example of the level of defence spending by a major superpower, in 1998 the US spent 7 percent ($406B) of its GDP on defence This level of expenditure exceeded the total of all other NATO

needs over limited available government funds, especially when defence no longer seemed to be a National priority, could result in a transfer of funds to deemed higher priority activities.

A large scale example of the impact of the "Peace Dividend" is readily observable with the experience of the United States Navy (USN), as detailed by Captain Wayne P. Hughes, "…forward presence and crisis response became ever more difficult in the 1990s as the nation claimed its "peace dividend" and dramatically reduced the proportion of the Federal budget devoted to defense. Navy fleet numbers took a nose dive from almost 600 ships to 500 and then to less than 400."[4] This corresponds to a 33% reduction in the US Naval Fleet. In Canada's case, paying down the burgeoning National debt, and increasing expenditures on Social programs, was viewed by many as ideal areas in which to reallocate funds now considered surplus to defence needs. As observed by the Honourable Colin Kenny, chair of the Standing Committee on National Security and Defence (SCONSAD):

> …while the government and outside analysts realized that old threats to Canada persisted and new ones might well be in the works, professional and institutional judgment lost out to public opinion. Canadians relaxed when the Cold War ended. Most of us bought into the peace dividend mentality. Feeling secure, we turned our attention to other items on the political agenda.[5]

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countries combined. Numbers provided by project ploughshares, "Canadian military spending: How does the current level compare to historical levels?...to allied spending? To potential threats." March 2003. Available on line at: http://www.ploughshares.ca/libraries/WorkingPapers/wp031.pdf, 8.

[4] Wayne P. Hughes, Jr. (USN Retired), "A Bi-Modal Force for the National Maritime Strategy," Presented at the CAN sponsored Conference *"The Future of Maritime Strategy: In the Era of Globalization and the Long War on Terror"* (Monterey California, 26 October 2006), 1.

[5] Standing Committee On National Security and Defence, 38th Parliament – 1st Session. *Canada's Military and the Legacy of Neglect: Our Disappearing Options for Defending the Nation Abroad and at Home* (Ottawa, 2005), 16.

As a result, over the period 1993 through to 1998 the defence budget was reduced by approximately 25 per cent from over $12 Billion to just over $9 Billion[6], while personnel levels dropped from over 87,000 to 60,000.[7] As a percentage of Gross Domestic Product (GDP), Canadian defence spending declined from 1.7 per cent in 1990 to 1.0 percent in 1999.[8] Seen at the time as a reasonable step, in view of a considered more benign global environment, the decision would ultimately prove detrimental to National Defence capabilities. As stated in a June 2006 interim SCONSAD report entitled, the Government's No. 1 Job – Securing the Military Options it Needs to Protect Canadians:

> The truth is that much of the Canadian military equipment should have been replaced in the 1990s, but the Government's fight against budget deficits took precedence. The impact of that fight on the Canadian Forces – which took the biggest hit of any government institution during the cost cutting, is now manifesting itself. There is a long list of ships, aircraft, and all kinds of other equipment that should be acquired to either replace aged existing equipment or to fulfill new roles.[9]

As previously indicated, the decision to reduce military spending was based, at least superficially it would appear, on the assumption that the world was now a safer

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[6] Official Opposition response to the SCONDVA Majority Report: *Real Commitment: Addressing the underlying causes of low moral and the poor quality of life in the Canadian Forces* – (Ottawa, 1998), 3. Detailed figures, by year, are also available at Department of National Defence, *Defence Budgets 1999 – 2003* (Ottawa: DND, 2004).

[7] Figures provided for 1990 found at: Auditor General of Canada (1990). *"Department of National Defence: Human Resource Management – Planning and Personnel Management"* , 7. Figures provided for 1998 found at Official Opposition response to the SCONDVA Majority Report: *Real Commitment: Addressing the underlying causes of low moral and the poor quality of life in the Canadian Forces* – (Ottawa, 1998), 3.

[8] Department of Finance, *Fiscal Reference Tables 2006*, Table 8. GDP percentages are provided for the period from 1961/62 to 2005/06. Through the entire period detailed the percentage GDP provided to Defence declined. In 1961/62, for example, the percentage GDP was 4%, reducing thereafter to a low, in 2000/01, of 0.9%. The percentage GDP has since increased to 1.1% for the year 2005/06..

[9] Standing Committee On National Security and Defence, The Government's No. 1 Job – Securing the Military Options it Needs to Protect Canadians (Ottawa, 2006), 14.

place in which to live. It was entirely reasonable, therefore, to expect the redistribution of funds to higher priority areas. Paying-down the National debt and eliminating the Federal Government spending deficits were viewed as the most important priorities. The demand from the general population for a peace dividend made a reduction in defence spending expedient and justifiable. Further, since defence spending is the largest 'pot' of discretionary Federal Government spending, reducing the defence budget was inevitable.[10] As a result, over the 1990's the CF/DND embarked upon the road to "Capital" equipment 'Rust-Out'; where rust-out is defined as the point at which defence capital equipment can no longer be sustained/maintained to an effective level and there are no plans to replace the equipment capability. As quoted from General (ret'd) Paul Manson, in his brief to the Conference of Defence Associations Institute (CDAI), "Major reductions in the Defence Budget in the Decade of the 90s left insufficient capital funds for the purchase of new systems, at a time when the rust-out of old equipment was problematical."[11] In effect, rust-out implies a loss of CF capability. This rust-out process involved the deliberate degradation of military capabilities as equipment was not being replaced in a manner necessary to ensure ongoing optimal operational efficiency. Concurrently, insufficient funds were being provided to maintain the existing equipment to basic standards of operating efficiency. This was confirmed by SCONSAD which observed:

> The failure of successive governments over the last twenty-five years to recognize these [Operations and Maintenance] costs has been one of the

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[10] Ibid.

[11] Paul Manson (General Retired), "Procurement Cycle Growth – The race between obsolescence and acquisition of military equipment in Canada, 1960 to the present", presentation to the *Conference of Defence Association Institute*, 22 July 2005.

> contributing causes of the Canadian Forces' current situation. Shortfalls in national procurement accounts means that you can't buy enough spare parts…[12]

One of the most notable examples of this degradation is the aging CF-124 Sea-King helicopter fleet. Brought into service in the mid 1960s, the Sea-King Fleet has and continues to, provide stellar service to the CF. Unfortunately, as with all equipment of a mechanical nature, as the fleet aged it became increasingly more expensive to maintain the helicopter fleet, both in terms of spare parts and person-hours required to ensure serviceability.[13]

While the need to retain the Sea-King capability was recognized, due to a number of factors, including the overall cost of replacement and the demand for a peace dividend, replacement of the fleet was not considered high priority by the Governments of the day. This resulted in the degradation of equipment capability and possible failure in CF mission success capability. Fortunately, action has now been taken to replace the aircraft, though the process has been long, cumbersome and expensive. The desire to replace the aircraft was identified in the 1970's, however the first replacement aircraft will not see service with the CF until 2008.[14] More specifics regarding this issue will be provided later in the paper.

Degradation in CF capability may have been acceptable had the premise that the world was now a safer place been valid. Unfortunately this assertion has proven to be

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[12] Standing Committee On National Security and Defence, The Government's No. 1 Job – Securing the Military Options it Needs to Protect Canadians (Ottawa, 2006), 7.

[13] Auditor General of Canada (2001). "National Defence: In Service Equipment, " *Report to the House of Commons* (December).

[14] Department of National Defence, *Backgrounder – The Maritime Helicopter Project* (Ottawa: DND, 23 November 2004), 4.

largely false. In fact, the global environment has become increasingly unstable since the fall of the Berlin Wall. Prior to 1989, the two superpowers (US and USSR) maintained relative global peace. There had been isolated regional conflicts, however, the positions maintained by both the US and the USSR, and there respective alliances, had proven effective at ensuring mutual deterrence, hence relative global stability. In fact, the existence of North Atlantic Treaty Organization (NATO) and the opposing Warsaw Pact, complete with the defence expenditures considered necessary to retain relative power equilibrium, had provided an overall calm and predictable global environment.

It is a strange irony that the fall of the USSR as a major military influence (an objective considered attractive by the USA) would lead to increased global instability and insecurity. The original prospect of a fall of the USSR would conceivably have been increased US world hegemony and global stability. Being the sole remaining superpower, it could be expected that nations would flock to the West in order to establish and solidify social and economic ties. This has to some extent occurred as nation states previously under the umbrella of the USSR, such as Poland, Hungary and the Czech Republic, have looked west, especially to NATO, for collective security and defence.[15] Reality, however, has proven that the world is a less safe place to live than in the pre-1989 era. Regional conflicts have increasingly flared up in the Middle East while terrorist groups such as Al Qaida, Hamas, Hizballah, and the Tamil Tigers, to name but a few organizations have, as cited by Public Safety Canada, contributed significantly to

[15] Standing Senate Committee on Foreign Affairs, *The New NATO and the Evolution of Peacekeeping: Implications for Canada* Seventh Report (Ottawa: DFAIT, 2000), 3.

failed and/or failing States.[16] Demands for national defence have, therefore, emerged as major national agenda items.[17] The result has been that Western nations such as Canada and the US are currently involved in more, rather than fewer, military operations.

For its part Canada has found itself, given increased regional instabilities, in a position of supporting an increased number of United Nations (UN) and North Atlantic Treaty Organization (NATO) missions. Since 1947, the Canadian Forces have participated in 72 international operations.[18] Since 2000, the Canadian Forces have participated in 34 of these 72 international operations.[19] The numbers illustrate a striking increase in operational tempo over the past decade. The CF/DND found itself in the ever precarious position of 'doing more with less'. With increasing demands placed on the CF to support UN and NATO missions (a function considered critical to retention of Canadian credibility on the global stage) the current capability of major equipment was degraded at an ever increasing pace with the known, yet perhaps marginalized outcome (in terms of impact) that the CF was sacrificing long term organizational survivability for short term performance and sustainability.[20] Unfortunately, concentration on current operations can lead to blindness when considering future requirements, especially when

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[16] Public Safety Canada, "Keeping Canadians Safe." http://www.ps-sp.gc.ca/prg.ns/le.cle-en.asp; Internet; accessed 20 March 2007.

[17] Privy Council Office, Securing an Open Society: Canada's National Security Policy (Ottawa: national Library of Canada Cataloguing in Publication data, 2004), 2. United States national defence policy is available at: The White House, United States of America National Security [Article on-line], available from http://whitehouse.gov/infocus/nationalsecurity/index.htm; Internet; accessed 05 September 2006, 1. A comparison of both national security agendas indicate striking similarities in approach to national security, including the requirement for both domestic and expeditionary defence roles.

[18] Department of National Defence, *Current Operations* (Ottawa: DND, 29 March 2007).

[19] Department of National Defence, *Past Operations* (Ottawa: DND, 29 March 2007).

[20] Standing Committee On National Security and Defence, The Government's No. 1 Job – Securing the Military Options it Needs to Protect Canadians (Ottawa, 2006), 7.

funding is limited and governments of the day are seeking immediate results rather than giving the appropriate level of interest to future capability requirements.

The philosophy of short term gain at the expense of long term pain is relevant in the Canadian context and directly applicable to the CF experience of the mid 1990s and early 2000s. As the 20th century came to a close it was becomingly increasingly clear that the CF could not be expected to maintain its current operational tempo without a much needed infusion of both capital equipment and personnel.[21] Notwithstanding this situation, it was not until 1999/2000 that action was taken by the Federal Government to increase the CF/DND budget in order to re-establish and, where considered necessary, develop military capabilities.[22] Thereafter, between fiscal year (FY) 2000/01 and FY 2003/04, the actual spending on Defence increased by 19.53 per cent from $11.46 Billion to $13.71 Billion.[23] This was followed by promises of a massive injection of funds by the current Conservative government. Over the period 2006 to 2012 the DND will see an increase of 15,000 personnel and over $5 billion for the procurement and maintenance of major equipment and to develop and progress major initiatives such as Arctic sovereignty.[24]

While certainly an excellent indication of the country's resolve to re-generate its military forces and capabilities, it is nonetheless considered that because of the

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[21] Standing Committee On National Security and Defence, 38th Parliament – 1st Session. Canada's Military and the Legacy of Neglect: Our Disappearing Options for Defending the Nation Abroad and at Home (Ottawa, 2005), 15.

[22] Department of National Defence, Defence Budgets 1999-2003 (Ottawa: DND, 19 March 2007). The Defence budget increased from $10,256,532,000, in 1998/99 to $11,521,681,000 in 1999/00. This represents an increase for the one year period of 12.33%.

[23] Department of National Defence, Budget *2004: Defence Budgets 1999 – 2003* (Ottawa: DND, 2007). Actual figures were $11,469,965,000 and $13,710,771,000 for 2000/01 and 2003/04, respectively.

[24] Department of National Defence, *Defence and Budget 2006 – Highlights* (Ottawa: DND, 2006).

Departments organizational structure, the processes in place to procure major equipment, political influence and demands for regional benefits, as well as a number of other issues, that the CF/DND will encounter major problems in the procurement of major capital equipment. This will be the case despite the promised significant injections of resources, by the Federal Government, and the stated CF/DND desire to: "Increase investment in the Capital Program to not less than 23%, up from the current 18%, of the Defence Services Program (DSP) to maintain a modern force structure."[25] In fact, process improvements need to be identified and implemented in order to ensure that equipment can be acquired so that the CF can meet its current and future commitments.

**Purpose of Study**

Despite changes to the capital equipment procurement strategy and administration, and recently announced increases to the Defence budget, the current acquisition process can be further improved to more effectively meet the needs of Canadian Forces operational requirements.

This paper will review and analyze the historic and current DND/CF capital equipment procurement process, with the above stated thesis in mind, as well as identify the current issues governing the procurement of CF capital equipment. Additionally, the analysis will provide insight into recommendations that can improve overall acquisition efficiency.

**Need for Study**

Recent Federal Governments have acknowledged the need to rebuild CF

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[25] Department of National Defence, *Shaping the Future of Canadian Defence: A Strategy for 2020*

capabilities that suffered under the budget reductions of the 1990s.[26] In this regard, recent governments have pledged significant injections of funding into the CF/DND annual budget. In fact Budget 2006, which was tabled on 2 May of that year, included a "substantial commitment to bolster defence and strengthen Canada's role in the world". The budget announced an increase in defence spending of $1.1 billion over two years, and a commitment to grow to $5.3 billion over the ensuing five years. The $5.3 billion increase will be used to:

(i) Proceed with the transformation of military operations and defence administration;

(ii) Accelerate the recruitment of additional regular force and reserve force personnel; and

(iii) Acquire equipment needed to support a multi-role, combat-capable Canadian Forces.[27]

The injection of funds is considered an important first step in re-equipping the CF. This said, it takes much more than merely dollars to acquire capability. It must first be ascertained that the equipment purchased will meet current and future operational needs and, second, that the purchases can be effected in such a manner so as to 'be made available at the right place', 'at the right time', and 'at the right price'.[28] All three of these

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(Ottawa: DND, June 1999), 6.

[26] Department of National Defence, *"Message from the Minister"* http://www.dnd.ca/site/Reports/budget06/message_e.asp. Internet; accessed 30 January 2007.

[27] Department of National Defence, "Defence and Budget 2006 – Highlights" http://www.dnd.ca/site/Reports/budget06/summ06_e.asp. Internet; accessed; 30 January 2007.

[28] Department of National Defence, DAOD 3000-0: Material Acquisition and Support, 1-4. MA&S is the acquisition, support and disposal of the materiel component of the defence capability DAOD300-0 is issued under the authority of the Assistant Deputy Minister Materiel. The policy lays the foundation for getting the Materiel, Acquisition and Support (MA&S) business 'right'. This means getting

factors must be addressed in order to ensure that major/capital CF defence procurement is both efficient and effective.

The first step in the research of the above stated thesis is to review the current body of literature on the subject of Defence Capital equipment acquisition. This review will provide insight to the history of Canadian defence procurement, the changes that have brought the process to its present iteration, as well as the problems and issues inherent in the process. The review will also provide a 'road map' as to areas in which the process can potentially be improved so that the operational needs of CF missions can be more effectively achieved.

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the right goods or services at the right time for the right price, ensuring the right support, applying the right rules, all with the right people. ADM(Mat) ensures the pre-eminence of CF operational requirements, obtains the best possible value, is open and transparent, promotes national objectives and contributes to the development and maintenance of a competitive domestic defence industrial capability.

# CHAPTER 2

## LITERATURE REVIEW

Before making recommendations on how to improve the capital equipment acquisition process, it is appropriate to first review the body of literature on the subject; both historic and current. As previously stated, a review of the literature will provide insight into the problems that currently exist and how the procurement process developed into its current state. As well, it will provide some direction on ways to improve the process in order to more effectively meet the current and future operational requirements of the Canadian Forces.

As stated by Dan Middlemiss in his 1995 "Defence Procurement in Canada" article:

> defence procurement is a vital component of Canadian defence policy. It is what puts the 'arms' into the armed forces and because of the many (sometimes very large) contracts and jobs involved, it is also "big business" in Canada. It can be highly controversial; inter-regional political bickering for the equitable distribution of military contracts has made defence "pork-barreling" a sure media attraction. It is also perhaps one of the few aspects of Canadian Defence policy that is real, if not altogether understandable, to many Canadians.[29]

In Canada, the forecast DND budget in 2010 will be $ 20 billion.[30] With a target expenditure for capital equipment of 23% of the defence budget, this equates to approximately $ 4.6 billion in 2010.[31]

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[29] Dan Middlemiss," Defence Procurement in Canada" in *Canada's International Security Policy*, ed. David B. Dewitt and David Leyton-Brown (Scarborough: Prentice Hall Canada Inc., 1995), 391.

[30] Department of National Defence, *"Message from the Minister"* http://www.dnd.ca/site/Reports/budget06/message_e,asp. Internet; accessed 30 January 2007.

[31] Department of National Defence, *Shaping the Future of Canadian Defence: A Strategy for 2020* (Ottawa: DND, June 1999), 9.

While overall expenditure of this magnitude is considered relatively minor, when compared to the larger Canadian Gross Domestic Product (GDP), which was $1.454 Trillion in 2006, the absolute value remains significant.[32] With a budget of this size, defence definitely remains big business in Canada. There is, therefore, little wonder that a complicated set of rules and regulations has been developed to govern equipment acquisition. Additionally, a number of diverse players, including DND/CF, Treasury Board (TB), Privy Council Office (PCO), Public Works and Government Services Canada (PWGSC), the Prime Ministers Office (PMO), Federal Cabinet and the Canadian Industrial Defence complex, are involved in the process.

The Defence Programme Management System (DPMS), which supported the Defence Services Program (DSP) until 1998, was adopted by DND in the late 1970s.[33] The system was designed to ensure the effective expenditure of tax-payer dollars on military defence spending. The DPMS was, in fact, a very prescriptive system based upon an extremely regimented series of steps which included five phases; policy planning, project identification, project development, project definition, and project implementation. Each phase consisted of several key documents "structured to encourage the orderly and logical development of proposals into solutions."[34] As observed by Stone, "The DPMS was in fact a validation process that provided a paper trail that was

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[32] Statistics Canada, "Canada: Economic and financial data" http://www40.statcan.ca/101/cst01/indi01b.htm; Internet; accessed; 29 March 2007.

[33] Office of the Auditor General, Department of National Defence: Major Capital Projects – Project Initiation and Implementation within DND 1992 (Ottawa: Minister of Supply and Services Canada, 1992), 17.2.

[34] James C. Stone, *Doubling the Size of the Defence Budget: The Economic Realities of Strategy 2020* (Kingston: Royal Military College, 2004), 241.

time consuming and cumbersome. More importantly, the approval process that accompanied the paper trail was just as complex and cumbersome."[35] The most important point, as observed by Bland, "is that the Defence Program Management System (DPMS) was a very lengthy process."[36] In fact, as observed by an Auditor General report, "it took on average 17 years to take a major capital equipment proposal from inception to TB approval."[37] The audit continued by noting that the DPMS was ineffective and cumbersome, and very expensive in terms of resources devoted to following all of the step in the process. [38]

Two factors led to a review of the DPMS in the mid 1990s; one was clearly the 1992 report of the Auditor General and the second was the rather substantial downsizing that DND/CF experienced in the early to mid 1990s. The former provided clear insight into the fundamental problems inherent with the system, while the second merely exacerbated the problem as fewer personnel meant efficiencies and improvements needed to be identified and established otherwise the system could come to a screeching halt. After all, if the system could not be 'fed' with all of the key documents and paperwork, which were developed by departmental personnel, then movement in progressing major acquisition projects would be even slower. As well, adherence to the process was strictly required. This was observed by Haglund who noted that, "the system evolved to the point

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[35] Ibid., 242.

[36] Douglas Bland, the Administration of Defence Policy in Canada 1947 to 1985 (Kingston: Ronald Pl Frye & Company, Publishers, 1987), 171.

[37]. Office of the Auditor General, Report of the Auditor General of Canada to the House of Commons for the Fiscal Year Ended 31 March 1992 (Ottawa: Minister of Supply and Services Canada, 1992), 411.

[38] Ibid.

whereby it could be viewed as a perfect system designed not to accept risk".[39] In effect, the system could no longer be supported in its current form. The Defence Management System (DMS), contained within Canadian Forces Publication (CFP) 125 was subsequently developed and provided the foundation as to how DND would deliver the Defence Services Program given the evolving circumstances detailed above.[40] As detailed in the DMS manual:

> The Defence Management System (DMS) is the departmental framework that ensures the effective and efficient delivery of the Defence Services Plan (DSP). The DMS features clear strategic direction, defined resources levels and business planning as key tenets. The system provides managers with greater financial stability, increased control over expenditures and the flexibility to transfer funds from one resource planning element to another (principally through the business planning process).[41]

Additionally, as observed by Stone:

> The DMS provides: a linkage between defence policy and departmental planning; an overall strategic resource management framework; a department-wide process for performance measurement; and a detailed framework for reporting to government. The strategic resource management framework has been centred on defence planning documents and the annual business plans.[42]

The DND/CF component of capital equipment acquisition is governed today by the Defence Management System. The system consists of five phases deemed essential for effective project management, including:

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[39] D.A. Haglund, Canada's Defence Industrial Base: The Political Economy of Preparedness and Procurement (Kingston: Ronald P. Frye and Company, 1988), 167.

[40] James C. Stone, *Doubling the Size of the Defence Budget: The Economic Realities of Strategy 2020* (Kingston: Royal Military College, 2004), 242.

[41] Department of National Defence, Defence Management Systems Manual, A-AD-125-00/FP-001 (Ottawa: DND 31 December 1998), 1-14.

[42] James C. Stone, *Doubling the Size of the Defence Budget: The Economic Realities of Strategy 2020* (Kingston: Royal Military College, 2004), 245.

1. Problem Identification;
2. Option Analysis;
3. Definition;
4. Implementation; and
5. Close-out.[43]

In brief, DND/CF personnel first identify the problem at hand. This could include the requirement to procure and deliver a capability to satisfy the needs of one of the 11 planning scenarios; which will be discussed at length in a following chapter. Second, DND/CF personnel examine options to satisfy the requirement. The examination provides a basic review of, to name but a few factors, costs, benefits, and risks of each option. Third, after selection of the chosen option, DND/CF personnel produce a comprehensive plan that provides specific cost and risk details. Fourth, the equipment is procured and delivered. This phase also includes the management and monitoring activities needed to ensure that the project delivers the required product by the agreed delivery date and within the approved cost. Finally, during the fifth phase, the project closes down and all required reports are produced.

From a preliminary review, it would appear that the process is fairly simple and straight forward. In reality, however, the process can be complex and complicated. The introduction of business planning did provide better visibility with regard to inputs and outputs, specifically the assignment of resources to specific business lines, and heralded the benefits of performance measurement in order to determine the efficiency with which

[43] Department of National Defence, Defence Management Systems Manual, A-AD-125-00/FP-001 (Ottawa: DND 31 December 1998), 7-2.

the defence program was being delivered. However, there remained remnants of the previous system that would continue to bog down the acquisition process. To this day the DMS remains a bureaucratic process that continues to delay the delivery of capital equipment projects. As stated by Senator Colin Kenny in February 2006:

> Equipment-procurement is a huge problem. The time lag between identifying a need for a piece of equipment, and delivery, is so long that the equipment is obsolete when it arrives. The average length of time it takes to acquire a piece of major equipment, under the current system is 14 to 16 years. That may be hard to believe, but it is true.[44]

Alan Williams provides empirical evidence for Kenny's anecdotal observation when he reviewed objective baseline data. As detailed by Williams: "From an examination of 241 files active on 28 August 1998, it was determined that the acquisition period from the identification of a deficiency to the close-out of a project was 15.8 years."[45] An illustration of William's findings is provided at Figure 1:

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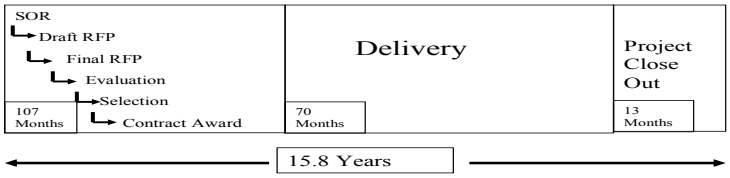
[44] Senator Colin Kenny, Chair of SCONSAD, "DND Equipment Procurement," Ottawa Citizen, 23 February 2006.

[45] Alan S. Williams, *Reinventing Canadian Defence Procurement: A View from the Inside* (Montreal and Kingston: McGill-Queen's University Press, 2006), 95.

**Figure 1: Historical Cycle Times in the Defence Procurement Process 15.8 years**[46:]




Though Williams continues by observing that "…much has been done to reduce cycle time,"[47] it would seem, nonetheless, that the acquisition process remains lengthy and results in the delivery of equipment well after it is needed in order to support operational missions. The aforementioned improvements noted by Williams will be reviewed at a later section of this paper. Finally, as observed by the Chief of Review Services (CRS):

> In Canada, continuous efforts over the last 20 years to keep the process relevant and flexible have not reduced the time frames required to obtain new equipment. If equipment is to be responsive to need, reform initiatives must be undertaken so that end products are relevant in tomorrow's environment.[48]

The DMS, therefore, has not resolved the issues and concerns of its predecessor, the DPMS, with the conclusion that improvements in the acquisition process are still required.

In addition to internal issues there are, throughout the process, a number of external influences/organizations that can, and do, impact the delivery of a project. Major

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[46] Ibid., 96.
[47] Ibid., 95.
[48] Ibid., 2.

influences include Treasury Board (TB) and Public Works and Government Services Canada (PWGSC). Treasury Board is the Federal organization that, for all intents and purposes, holds the Federal 'purse strings'. Major Capital projects require TB approval before they can continue towards procurement. Even prior to this stage, however, it is necessary that major defence expenditures receive and maintain support from the Federal Government, including the Minister of National Defence and the Prime Minister. It is at this point where political influence can become a significant issue and can derail the best laid plans of DND/CF. One only needs to look at the Sea-King replacement project. In 1992 a DND contract was signed to supply 50 newly-developed EH-101 helicopters at a total projected cost of $5.8 Billion.[49] Thereafter, as promised during the 1993 election, Jean Chretien immediately cancelled the helicopter contract with EH Industries. Cancellation cost the tax-payers of Canada a half a Billion dollars in cancellation fees. In his defence Chretien argued, in the EH-101, DND had ordered a "Cadillac" of a helicopter "not based on the new reality of the Cold War being over".[50] Here, again, the demand for a peace dividend was seen as an appropriate reason to cancel major acquisition. This occurred even after Treasury Board had approved the project and assigned the funds to pay for the Sea-King replacement.[51] This political influence will be discussed in more detail later in the analysis, however the moral of the story is that there are no assurances until the equipment is delivered into the hands of CF personnel for in-

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[49] *The Ploughshares Monitor*, March 1999, volume 20, no. 1, 2.

[50] S.T. Priestley, "Sea King Replacement," Canadian Defence Policy, Foreign Policy, & Canada-US Relations. http://www.sfu.ca/casr/ft-mhp11.htm.

[51] Paul Manson (General Retired), "Procurement Cycle Growth – The race between obsolescence and acquisition of military equipment in Canada, 1960 to the present", presentation to the *Conference of Defence Association Institute*, 22 July 2005.

service use.

A third player in the process, though no less important than TB or the Prime Minister's Office, is Public Works and Government Services Canada (PWGSC). PWGSC is the designated Federal organization that is responsible for establishing contracting rules, bidder tendering, awarding of major defence contracts and monitoring of adherence to awarded contracts.[52] In addition, PWGSC must follow the rules and regulations imposed by a number of agreements on trade; these include the North American Free Trade Agreement (NAFTA), which governs trade between Canada-United States-Mexico, the World Trade Organization (WTO), which governs trade on a global basis, and the domestic Canadian Agreement on Internal Trade (CAIT), which governs trade between the federal, provincial and territorial governments. These trade agreements require that the contract approval process be as competitive and transparent as possible. The basis for this requirement is to ensure free trade amongst participants while permitting the contracting party to derive maximum benefit from all available and interested parties. The first two trade agreements, however, exclude defence-specific goods and services, while the CAIT includes them.[53] The result of inclusion of defence-

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[52] Public Work and Government Services Canada, *Supply Manual*. http://www.tbs-sct.cas/text/sm/sm-e.html. Internet; accessed 16 April 2007. PWGSC is the contract approval authority, responsible for approving requests from departments to enter into and amend contracts that exceed specified dollar amount. PWGSC is also the contract signing authority, which means that no matter what DND may recommend, PWGSC has the final say on whether to sigh or amend contracts, including ensuring that the terms and conditions in the actual contract reflect what it earlier approved in its capacity as the contract approval authority.

[53] Alan S. Williams, *Reinventing Canadian Defence Procurement: A View from the Inside* (Montreal and Kingston:: McGill-Queen's University Press, 2006), 7.The obvious question is why did the CAIT not exclude the defence-specific procurements? Officials at Industry Canada suggest that during the negotiation for the AIT, the provinces insisted on including defence goods and services because of their large value.

specific goods in CAIT results in a process that is extended because of the requirement to address additional regulations and policies.[54] The overall benefit of defence expenditures in CAIT is, however, questionable given that, as inferred by William's, CAIT can be utilized by foreign companies as long as they have a place of business in Canada.[55] As such, while foreign companies can be excluded by NAFTA and WTO they cannot be under CAIT. In effect, CAIT serves only to unnecessarily prolong and complicate the acquisition process while the benefits to Canadian suppliers may be in doubt. More will be said on the issue of NAFTA, WTO and CAIT in a following chapter on Current Issues, and specifically the Demand for Regional Economic Benefits, as regards potential improvements to procurement efficiencies through development of trade policy consistency.

A review of the defence-procurement literature has resulted in identification of a process that is extremely complicated and requires a significant period of time to complete. Certainly, over the past two decades, efforts to improve the process have been developed. These efforts have included replacement of the DPMS by the DMS, a move towards procurement of off-the shelf equipment, improved access to documentation via the internet, and an attempt to improve the working relationships between involved parties.[56] As stated by Alan Williams, however, "All of the above actions, while necessary, will not be sufficient to achieve the target cycle time".[57] Therefore, while

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[54] Ibid.

[55] Ibid., 8.

[56] Ibid., 96.

[57] Ibid. Mr. Williams, as ADM(Mat) sought a 30% reduction in acquisition cycle time. With an average cycle time of 15.8 years, the cycle time would be reduced by 4.74 years to 11.6 years. Based on current experiences,, acquisition cycle times remain lengthy. This indicates that much can still be done to

there have certainly been attempts to improve the efficiency of the system, the current process can still be improved to more effectively meet the needs of Canadian Forces operational requirements. Recommendations for additional improvements include:

> 1. The government should combine the defence-specific PWGSC contracting resources with the DND procurement resources into a single organization, Defence Procurement Canada (DPC);[58] and
>
> 2. DND should immediately begin to report on costs and on acquisition cycle times in its annual performance report. Variances from plans should be listed under the headings: (a) waiting for approvals, (b) internal, (c) contractor delays, and (d) change in scope.[59]

Adoption of the first recommendation would create organizational synergy given that all of the contracting resources necessary to prosecute equipment acquisition would be under a single roof. Implementation of the second recommendation would provide a central registry from which lessons learned could be collected and from which measures to resolve ongoing issues could be developed. These two specific recommendations are, however, only two methods through which the technical acquisition process could be improved. Both certainly possess the potential to improve the process and should be implemented. Further, it is considered that suggestions for improvements are only limited by the imagination. Success, however, of any such recommendation will be fully dependent on the cooperation and coordination of all those involved in the process.[60]

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improve the process.

[58] Ibid., 74.

[59] Ibid., 97.

[60] Alan Williams, in his book "Reinventing Canadian Defence Procurement" provides a number of recommendations to improve the acquisition process. Most of these recommendations are focused on how to improve the technical processing time of documents and how to best achieve coordinated response to existing policies. While acknowledging that there are other factors, such a politics and economic benefits, that impact the process, Williams seeks first to improve internal issues; after which attention can be turned to addressing external factors.

A review of Canadian Defence procurement literature has revealed a process that is both complex and less than responsive to the operational needs of CF requirements. Specific observations have provided some insight into possible measures that can be taken to redress the current issues. The overall effectiveness of these measures remain, however, in doubt. Notwithstanding, with these issues in mind it becomes an appropriate time to analyze the DND capital program and the specific processes used to determine DND/CF capital requirements. This review will provide additional insight regarding further means to improve the acquisition process.

# CHAPTER 3

## BACKGROUND

### The Capital Program

As this paper addresses the efficiency and effectiveness of the Capital Equipment procurement process in meeting the operational/mission requirements of the Canadian Forces in the 21st Century, focus will be placed on the 'Capital Equipment' component of the CF/DND Capital program. [61] While the other components are equally important, in terms of support to achievement of CF mission objectives, the Capital equipment component of the program is considered a "Bell-Weather" indicator of overall capital equipment health for the CF[62]. In this regard, as stated by Senator Kenny, "…capital funding is the area in which spending must increase the most."[63] Going further, Senator Kenny recommends:

> A minimum of 30 per cent of the defence budget be allocated to capital expenditures every year to ensure that Canadians serving their country have the infrastructure and equipment they need to do their jobs, with as little threat to their live as possible.[64]

This level of expenditure is considered necessary because degradation of capital equipment will result in a long term reduction of CF mission capability and, eventually, could result in an ineffective force by virtue of capital equipment 'rust-out' or loss of

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[61] Department of National Defence, "*Defence Resource Prioritization: Vote 5 – Capital Program*" http://www.vcds.forces.gc.ca/dgsp/pubs/dp_m/res-pri/res-pri-vote5_e.asp. Internet; accessed 16 April 2007. Capital is that portion of the Defence Services Program (DSP) dedicated to the investment in durable assets intended to create, support and sustain defence capabilities. There are four basic components of the Capital Program including Capital Equipment (strategic and non-strategic), Construction (capital and minor), Miscellaneous and other.

[62] Ibid.

[63] Standing Committee On National Security and Defence, The Government's No. 1 Job – Securing the Military Options it Needs to Protect Canadians (Ottawa, 2006), 35.

interoperable capability with Canadian defence allies. Both of these factors are addressed in "Shaping the Future of the Canadian Forces: a Strategy for 2020" (Strategy 2020) as being critical to future success of the CF. Specifically, Strategy 2020 states:

> Building operationally effective forces is a long-term activity. Research and Development, equipment acquisition and the Integration of new concepts and equipment into effective training programs require several years…. The investments and changes required today to develop the defence capabilities to defend Canada's interests and values tomorrow require a long-term vision.[65]

Implicit in this statement is the very real possibility that once a military capability is lost it will undoubtedly take an extended period of time to rebuild the capability. In fact, Strategy 2020 recognizes that the development of military capabilities requires lead times of up to two decades.[66] This, in effect, becomes an assessment of risk versus potential need for the capability in question. This risk-capability approach is currently being utilized by the CF/DND through application of Capability Based Planning (CBP) methodology.[67] In effect, given that the CF knows what future capabilities it will require, it will be possible to channel limited available funding directly to the required capabilities; thereby only purchasing those items that the CF considers of the highest priority. This would be similar to the decision to purchase house fire insurance, where the risk of fire may be small and the premiums relatively high, however the cost to the owner of not having the insurance in the case of the fire could be devastating. Decisions

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[64] Ibid., 45.

[65] Department of National Defence, *Shaping the Future of Canadian Defence: A Strategy for 2020* (Ottawa: DND, June 1999), 1.

[66] Ibid.

[67] Department of National Defence, "Capability Based Planning Overview" http://www.vcds.forces.ca/dgsp/pubs/dp_m/cpb_e.asp: Internet; accessed 31 January 2007.

impacting future capital equipment procurement must, therefore, take into consideration the possible future requirement for the capability as well as the cost of acquiring and maintaining the equipment and the risk should the capability not be available. While the theory of CBP is sound and could certainly support acquisition of essential capabilities, it is only a tool and, by itself, will not ensure that the necessary capabilities are procured in a time and manner that will meet the needs of the CF. There is, additionally, a stated desire to acquire defence equipment that will support interoperability with our allies.

With regard to the requirement to maintain interoperability, specifically, through acquisition of complementary systems, Strategy 2020 states:

> …our armed forces must be inter-operable with our main defence partners in the UN, NATO, and coalition operations. This means that Defence must keep pace with new military concepts, doctrine and technological change.[68]

It seems clear that the both the CF and DND fully appreciate the need for Capital equipment procurement. Effective and efficient procurement of Capital equipment, and the associated capabilities, will permit the CF to meet the challenges of 21st Century missions, while a failure in the endeavour could easily lead to equipment rust-out, loss of operational capability, absence of interoperability, mission failure and, ultimately, loss of credibility in the perceived professionalism of the CF as a military organization. Notwithstanding the acknowledgement of the factors, issues, and potential consequences of inefficient and ineffective capital equipment procurement, however, it is considered that current organizational structures, processes and establishments serve as inhibiting

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[68] Department of National Defence, *Shaping the Future of Canadian Defence: A Strategy for 2020* (Ottawa: DND, June 1999), 3.

factors to achievement of a successful Capital equipment procurement program. In support of this position, Alan Williams states:

> Canadian defence procurement cannot be fixed because it is complicated, but it is complicated only because of the unnecessary bureaucratic complexity that manages the process day-by-day. Fixing the problem "removing unnecessary complexity" requires the removal of some players and interests form the process in whole or in part and the elimination of rules and procedures that sustain the complexity.[69]

Williams re-enforces this position by observing:

> The complexity that is the Canadian defence-procurement system is a bureaucratic muddle characterized by a lack of accountability at all levels. No one minister is responsible fro procurement decisions nor accountable for procurement results. Instead…several ministers and their departments have responsibilities which allow them to move a project forward or to stop it in its tracks. The muddle is also evident in the "flurry of statutes, regulatory processes, and reporting procedures demanded by central agencies. Where many are in command, no one is in command.[70]

Both Bland and Williams assess the 'system' as a significant obstacle to efficient equipment acquisition. As such, internal process improvements, and actions that can improve inter-departmental cooperation contain the potential to enhance acquisition efficiency and, thereby, more effectively meet the needs of CF operational requirements. One of these internal process improvements, that has been implemented over the past decade, is that of Capability Based Planning (CBP). While still in the development process, CBP possess the potential to provide significant efficiencies to the existing equipment procurement process.

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[69] Alan S. Williams, *Reinventing Canadian Defence Procurement: A View from the Inside* (Montreal and Kingston:: McGill-Queen's University Press, 2006), xvi.

[70] Ibid., xvii.

**The Capability-Procurement Process**

Historically western nations, including Canada, have utilized a 'Threat Based' model in order to determine what equipment/capabilities are necessary to meet an existing or potential threat.[71] The argument for this approach being that it would be essential, in order to meet and defeat the enemy, to possess capabilities and equipment equal or superior to those of an adversary. In this regard, if an adversary possesses fighter aircraft then fighter aircraft need be acquired for defending forces. If the enemy possesses submarines then defending forces must have submarines, or at least the capability to detect and defeat submarine forces. If the enemy possesses heavy armour, such as tanks, then tanks are the logical solution for defence. To do otherwise would simply leave western forces vulnerable and unable to defend themselves in the event of conventional hostilities. As such, the selection of equipment/capabilities was quite simple; identify the capabilities possessed by the enemy and effect procurements to offset the advantage. This was the process as it existed during the Cold War. As NATO peered across the battle lines, into the Warsaw Pact nations, it was a simple matter of counting assets and establishing a defensive posture capable of meeting the threat. Canada, as an active member of NATO, took up its responsibilities through procurement of assets to meet this European battle space. The most significant factor governing overall procurement was the level of funding made available for equipment acquisition.

As the Berlin Wall fell, the world changed. No longer was the Warsaw Pact viewed as the predominant adversary. Further, rather than being a safer place to live, it

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[71] Department of National Defence, *"Threat Based Planning"* www.capdem.forces.gc.ca/html/tbs_e.html; Internet; accessed; 25 March 2007.

was found that the World was now more unstable. These two factors necessitated a change in thought governing what equipment/capabilities would be required to meet the demands of a 'New World Order'. It was soon discovered that asymmetric threats, such as that perpetrated on the New York Twin Towers in September 2001, were on the rise. This raised questions regarding the need to retain some of the capabilities that, to that time, had been held sacrosanct. As an example, as Canada pulled its forces out of Germany in the mid 1990s, the need to retain, and the ability to support, a heavy armour (tanks) capability was questioned.[72] In light of the fact that Canada had not utilized heavy armour in a mission since The Korean Conflict (1951-1953)[73], and there was no thought of using it in Canada, it seemed to be an irrelevant and costly capability to maintain. The fact that armoured units are expensive to maintain and defence dollars were growing increasingly scarce in the mid 1990s, only added to the voices calling for the elimination of tanks from the CF weapons arsenal. The question of the relevance of the Leopard tank was even raised by the Minister of National Defence in 2003, then John McCallum, who stated, "Arguably, in today's world where there is a need for rapidly deployable forces…Canada's tanks may be less relevant."[74]

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[72] One reason for the planned mothballing of the Canadian Leopard tank was that the CF did not have the airlift capacity to get the equipment into a theatre of operations once the equipment was returned from Germany, where it had been stationed in support of Canada's NATO obligations Additionally, the maintenance of heavy armour was not seen as being in keeping with the perceived more benign global environment subsequent to the fall of the Berlin Wall in 1989. As well, the heavy armour capability was very expensive to maintain and the demand for a peace dividend made the tanks an easy target. Additional details can be found at http://www.freedominion.ca/phpBB2/index.php. As a note, the current planned acquisition of four strategic airlift platforms, in the form of C17s, will not provide sufficient heavy armour airlift capacity while the CF currently has no plans to acquire any significant sea-lift capacity.

[73] Wikipedia, the Free Encyclopedia, "*Lord Strathcona's Horse (Royal Canadian),"* http://en.wikipedia.org/wiki/Lord_Strathcona%27s_horse_%28Royal_Canadians%29; Internet; accessed 28 March 2007.

[74] Martin Shadwick, "The Tank and Asymmetric Choices," Canadian Military Journal (Spring 2003): 57.

What may have contributed to this statement, by the MND, was the adoption by DND/CF of a Capability Based Planning (CBP) process.[75] Capability Based Planning was developed as an alternative to threat based planning and is described in the following way:

> Capability Based Planning involves a functional analysis of operational requirements. Capabilities are identified based on the tasks required…Once the required capability inventory is defined, the most cost effective and efficient options to satisfy the requirements are sought.[76]

CBP involves the process whereby essential CF capabilities are identified, and resources, including financial and personnel, are allocated in order to ensure that the required capability is acquired and/or maintained. This process, in theory, ensures that limited

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[75] A number of references detailing the Capability Based Planning Process are readily available, including a section contained within the Chief Review Services report on "Perspectives on the Capital Equipment Acquisition Process June 2006". The report supports implementation of CBP as a process that can improve acquisition through a better understanding of CF capability requirements. A comparable United States of America document, entitled Guide to Capability-Based Planning, is also available at http://www.dtic.mil/ttcp/JSA-TP-3-CBP-Paper-Final.doc . This US based document, prepared by the Joint Systems and Analysis Group of the Technical Cooperation Program in Oct 2004, reveals that the US is encountering similar issues as those in Canada with regard to equipment acquisition decision. Department of National Defence articles that address CBP in a Canadian context can be found at both the VCDS and ADM(Mat) web sites. A presentation by LGen (Ret'd) George Macdonald on 13 Feb 2007 also provides an excellent introduction to the CBP process. LGen Macdonald describes the CBP process as " The presentation can be founds at fundamentally logical, well-documented and mature. It helps to identify the real priorities and why they are important, and it promotes confidence and awareness of our defence needs." The presentation can be located at: www.cdfai.org/PDF/Presentation%20to%20the%20Standing%20Committee%20on%20National%20Defence%20-%20Macdonald.pdf.

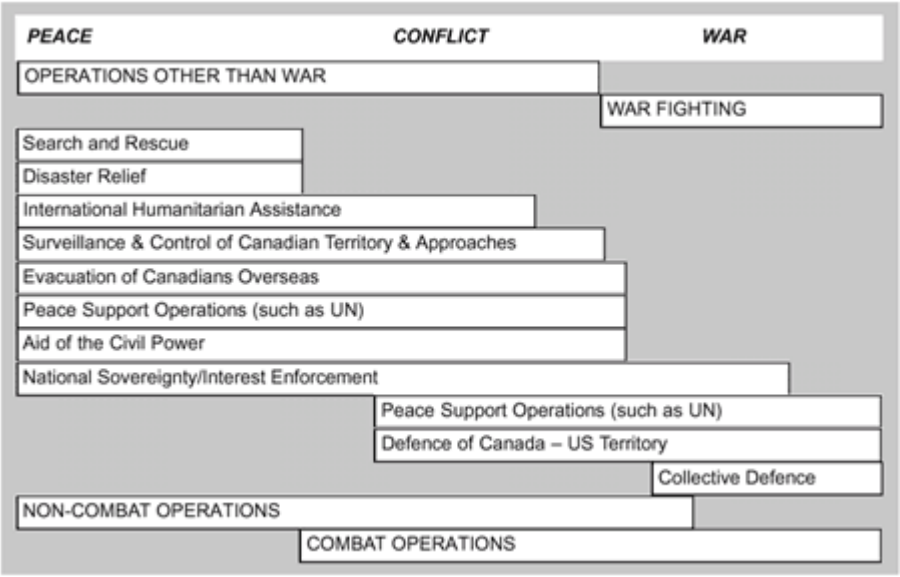
[76] Definition extracted from The Technical Cooperation Program, "Guide to Capability-Based Planning, Oct 2004, 1. Available on-line at; http://www.dtic.mil/ttcp/JSA-TP-3-CBP-Paper-Final.do. In 2000 the Department adopted a capability based planning approach to developing military capabilities. Rather than using the old Cold War threat-based planning approach, where Defence assessed the threat to Canada and based on the assessment determined the required Canadian Forces military capability, it adopted an approach that is in effect threat-neutral and centers on the range of types of activities the CF must be capable of undertaking in the contemporary security environment. These are derived from the defence policy document and captured as a list of 11 Force Planning Scenarios, including such diverse areas as search and rescue, peace support operations and collective defence. The Force Planning Scenarios, in turn, help to determine more specific types of required military capability and supporting equipment. An excellent introduction to the CBP process has been written by Dr. Elinor Sloan, "The Strategic Investment Plan: Origins, Evolution and Future Prospects", 1-28.

funding is used in the most productive manner possible and that requirements are identified early enough in the procurement process to support timely acquisition. As an example, if it is determined that heavy armour is no longer a capability required by the CF then no funds will be allocated to the capability. The funds that would have gone to maintaining the capability can be redirected to higher priority requirements. The risk associated with this process, of course, is that once a decision is made to eliminate a capability, in most instances, the capability cannot be re-created quickly. The key to determining what equipment to procure for CF operations is to first forecast the types of operations in which the CF will most likely be involved and, subsequently, determine what equipment would be best suited to meet these needs. The opportunity to utilize equipment such as light armoured vehicles (LAV) in a number of mission roles would also be of great benefit in terms of cost and flexibility of use. Cost could be reduced, as large fleets of identical equipment can be purchased, on a per item basis, at lower cost than smaller fleets of different vehicles. Single fleets can also be maintained at lower overall cost given 'economies of scale' can be realized. In addition, training and doctrine can be streamlined and personnel, once trained, can be employed in various operational roles utilizing the same generic equipment. For example, the LAVs that can be used in domestic operations and overseas in areas of armed conflict, such as the war on Terror in Afghanistan.

For the CF, the CBP process began with a review of the 'Spectrum of Conflict' as detailed in Figure 2:[77]

[77] Department of National Defence, "The Defence Portfolio – Defence Update Consultation Site" http://www.dnd/ca/menu/consult/current_policy/defence_portfolio/section_6_e.asp; Internet; accessed; 31

**Figure 2: Spectrum of Conflict**




The Spectrum of Conflict runs from 'Peace' through to 'War'. For each phase along the spectrum, as one moves from Peace to War, the level of conflict rises. As such, where one is employed on the spectrum will determine, to a great extent, the equipment/capabilities necessary to be successful. As an example, should Canada decide to enter War it would be advisable to possess a heavy armour capability, otherwise it is very unlikely that the CF will be successful on the battlefield; as heavy armour would most likely be essential for prosecution of operational objectives. The issue of Canadian participation in Afghanistan raises some interesting points in this regard. At present, Canada has deployed heavy armour, in the form of Leopard II tanks, in support of Canada's mission in Afghanistan. Deployment of heavy armour may be considered

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January 2007.

reasonable given the dangerous environment in which CF personnel are conducting operations; as of 10 April 2007, 51 Canadian soldiers had lost there lives in the operations area.[78] The fact, however, that Canada has deployed heavy armour does not necessarily mean that Canada will retain the capability in the future. As stated by Defence Minister John McCallum in January 2003, "Arguably, in today's world where there is a need for rapidly deployable forces Canada's tanks may be less relevant."[79] The intent of this paper is not to decry to future maintenance of a heavy armoured capability in the CF. Rather, analysis serves only as an example as to the choices that must be made and the part that Capability Based Planning can play in the decision making process. It must be kept in mind, nonetheless, that heavy armour is a role specific capability with high unlikelihood of being employed in any other place, other than war, along the spectrum. Should it be determined, therefore, that tanks are required as a CF capability, the logical conclusion is that Canada could, at some time, be involved in war or other activity of medium to high level conflict. Should Canada decide that it will not go to war, and decide to remove the tanks from service, it will be necessary to accept the risk that some day the tanks may be needed, however are not available.

Once a decision has been made regarding where Canada wishes to participate along the spectrum of War it next becomes necessary to identify what roles the CF will play in this spectrum. In this pursuit, the CF has identified 11 scenarios in which the CF

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[78] CBC News, Soldiers Bid farewell in Kandahar ramp ceremony", CBC News, 10 Aril 2007, http://www.cbc.ca/world/story/2007/04/10/ramp-ceremony.thml; Internet; accessed 10 April 2007.

[79] Martin Shadwick, "The Tank and Asymetric Choices," Canadian Military Journal (Spring 2003): 57.

may reasonably expect to participate in the future.[80] The 11 scenarios are detailed at Figure 2.

The identification of scenarios enables the CF to better analyze future requirements and therefore assist in the development of an appropriate, and more affordable, force structure. The planning scenarios are used specifically to:

(i) Assess risk;

(ii) Describe operational considerations, resource requirements, and other influencing factors; and

(iii) Rationalize capability/equipment requirements.[81]

Once the planning scenarios have been identified it then becomes possible to develop a supporting task list. This list, referred to as the Canadian Joint Task List (CJTL) establishes a framework for describing, and relating, the myriad types of capabilities that may be required by the CF to successfully accomplish the planning scenarios.[82] The CJTL (see Table 1 below for a matrix illustration) is comprised of eight major capability areas:

1. Command;

2. Information and Intelligence Capabilities;

3. Conduct Operations Capabilities;

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[80] 18 planning scenarios have recently been developed that will replace the original 11 planning scenarios. These 18 scenarios, while not as yet officially promulgated by Chief Force Development (CFD), are currently in the process of validation. It is contended, however, that the overall process used to determine tasks, capabilities, and equipment requirements, has not fundamentally changed; therefore the process being presented in this paper remains relevant. Once the 18 new scenarios are promulgated it can be expected that they will be published on the CFD web site: http://www.vcds.forces.gc.ca/cfd.

[81] Ibid.

[82] Department of National Defence, *"Canadian Joint Task List v1.4"*. http://www.vcds.forces.ca/dgsp/pubs/rep-pub/dda/cjtl/cjtl14/intro_e.asp.

4. Mobility Capabilities;
5. Protect Forces Capabilities;
6. Sustain Force Capabilities;
7. Generate Forces Capabilities; and
8. Coordinate with Other Government Initiatives Capabilities.

**Table 1: CJTL Major capability Areas**

| Level | Command & Control | | Operations | | | Sustain | Generate | Corp Strategy |
|---|---|---|---|---|---|---|---|---|
| | Command | Info/Intel | Conduct | Mobility | Protect | | | |
| Military Strategy | H | H | L | H | L | L | M | H |
| Operational (Domestic) | H | H | M | M | M | M | M | M |
| Operational (International) | M | M | L | L | L | M | L | M |
| Tactical | M | M | M | M | M | M | M | H |

There are three levels of task in the CJTL; military strategic, operational and tactical. The military strategic level determines objectives and desired end-states, while the operational level deals with campaign planning, and synchronizes military and other resources to achieve the desired end state and military strategic objectives. At the tactical level, activities are conducted within a sequence of major operations to achieve operational objectives. The table provides a guide to the level of capability that the CF requires to achieve in the various capability areas of the CJTL. The boxes marked “H” are those where the CF seeks to have a high degree of capability. Those with “M” indicate that a medium or moderate level of capability is considered acceptable. It is considered acceptable either because the CF cannot achieve a high degree of capability in the area on

its own, or because the CF has assessed that the risks associated with achieving only moderate capability are acceptable. An "L" indicates that the CF seeks only a low degree of capability in the area. The assessments of capability are derived from a concept of operations developed by the CF to achieve Government goals and policy.

With the development of the planning scenarios and the Canadian Joint Task List, which provides details of capabilities by priorities in order to meet the requirements of the planning scenarios, it then becomes possible to determine how CF/DND funds should be allocated to ensure the best return for dollars expended. For example, the capability for Command and Control (C2) at the Operational (domestic) level is High. The primary reason for this being that during domestic operations the CF must provide its own C2 capability and C2 is considered essential to conduct of successful operations. By contrast, C2 at the Operational (international) level is Moderate. The reason for this being that it is unlikely, during an international operation, that the CF will be in a position of Commanding and Controlling the operation. It is more likely that Canadians will find themselves participating in a combined operation under the Operational command of a foreign allied force commander. The CF, therefore, cannot accept risk when it comes to C2 for domestic operations, however will accept some risk for international operations; this could include the conscious decision not to procure certain equipment/capability that could permit more effective C2 in an international environment.

Once the degree of capability required for each area/box is determined, and specific tasks are identified to support the accompanying planning scenarios, the next step in the process is to determine, if required, what steps need be taken in order to build,

develop, and/or maintain a capability. In this regard, if a capability area requirement is assessed as high then it becomes a simple matter, theoretically, of determining which planning scenarios(s) are supported by the capability and applying resources as required in order to achieve the desired level of capability. In pursuit of this analysis, and underlying the CJTL, is a supporting framework known as PRICIE. PRICIE is the CF/DND construct of capability inputs with the component parts equating to:

P – Personnel;

R – Research & Development/Operational Research ;

I – Infrastructure and Organization;

C – Concepts, Doctrine and & Collective Training;

I – Information Technology Infrastructure; and

E – **Equipment,** Supplies and Services.[83]

A Joint Capability Review Board (JCRB) has been established to coordinate assessment of the above activities. If a capability requirement, as detailed in the CJTL Major Capability Matrix, is high then a review of the PRICIE components will provide an indication as to where resources need to be allocated, if necessary, in order to establish and/or maintain the capability to the desired level. For example, given the planning scenario 'Disaster relief in Canada', and based on the CJTL, C2 capability is High, while Operations, including Mobility, is Moderate. A review of the scenario, and applicable PRICIE components, may reveal that Light Armour Vehicles (LAVs), for transport, are required to support the scenario. By contrast, the C2 infrastructure may already be in

[83] Herb Petras, "The Land Force Capability Development Process," Canadian Army Journal Vol. 7.2 (Summer 2004), 6.

place and should be sufficient for the needs of the foreseeable future. If sufficient LAVs are not currently, or foreseen to be available, this would mean that the capital/equipment component, for mobility is assessed as 'red' and need be addressed while the C2 component is 'green', meaning that no significant funds need be allocated for this PRICIE component. Given these circumstances, the overall capability to support the planning scenario may be red, indicating that specific action must be taken to redress the prevailing circumstances.

This now brings the review to the specific topic of equipment acquisition, as the process will provide details as to what equipment may be required and in what quantities in order to meet foreseeable requirements as provided for from the planning scenarios and the CJTL. The preferred outcome of the process, with regard to equipment procurement, is the identification of requirements with sufficient lead times to ensure acquisition on a timely and efficient manner. The result is the identification and promulgation of a list of Capital equipment requirements. Specifically, a Strategic Capability Investment Plan (SCIP), is developed by the JCRB. As of December 2006, the following 16 projects (not in priority order) were to be pursued over the subsequent 12 months.

1. Maritime Helicopter Project;
2. M113 Life Extension Project;
3. Protected MILSATCOM Terminals;
4. CF Biological Agent Detection, Identification and Warning;
5. Search and Rescue Repeater (SARR) Re-design;
6. Canadian Advanced Synthetic Environment (CASE);

7. Clothe the Soldier;
8. CF Nuclear, Biological and Chemical Defence (NBCD) Sensors and Command and Information Operations (CIO) Omnibus Project;
9. High Frequency Surface Wave Radar;
10. Auxiliary Oiler Replenishment (AOR) Replacement with Joint Support Ship (JSS);
11. National Military Support Capability;
12. Halifax Modernized Command and Control System (HMCCS);
13. Land Force Command and Control Information System;
14. Joint Fusion Centre;
15. CF 18 Flight Data Recorder/Cockpit Voice Recorder (FDR/CVR); and
16. CF 18 Night Imaging System.[84]

All of the above listed capital equipment projects were determined after applying the process previously detailed. These projects were seen to provide the best support to the approved planning scenarios, CJTL tasks and current/forecast level of equipment capability.

Capability Based Planning, as previously detailed, is seen to possess the potential to improve the acquisition process to more effectively meet the needs of the Canadian Forces operation requirements. Identification of operational scenarios, tasks, capabilities and supporting equipment can significantly enhance the overall efficiency of the process.

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[84] Department of National Defence, *"Defence Plane On-Line; Capital Equipment"* http://www.vcds.forces.ca/PDOnline/FY06/PrioritiesCapitalEquip_e.asp; Internet; accessed; 31 January 2007.

Development of operational scenarios will tell the CF what missions it is likely to perform. Tasks will provide insight into the capabilities that will be required to succeed in the missions. Identification of capabilities will then enable planners to determine what equipment is required. With the overall result that the equipment acquired is done so well in advance to the benefit of those performing the mission. The CF is still developing its CBP capability. It is therefore considered that continued improvement of the process can improve the capital acquisition process and that the department should continue its use and development the capability so as to realize the maximum benefit from its use.

Now that the process of determining CF capital requirements has been detailed, the next step is to determine whether the organization/system is capable, notwithstanding the inherent complexity of the process, of equipment acquisition so as to meet the operational requirements of the CF. In this pursuit, it becomes necessary to review current issues and determine how they impact on the acquisition process. Once this analysis has been completed it will then be possible to determine ways to improve efficiency of the process. The issues of:

(i) Political influence;

(ii) Demands for regional economic benefits;

(iii) Trade policy inconsistency;

(iv) Equipment cost and funding assurance;

(v) Personnel; and

(vi) Change and Organizational inertia,

will, in turn, be addressed. Additionally, while this list of issues may not be exhaustive, it

is considered that it provides significant insight into the problems being faced by DND/CF in its efforts to re-capitalize its Forces.

# CHAPTER 4

## CURRENT ISSUES

### Politics Influence

It has been contended that politicians have delayed the procurement process by interfering with the marketplace in an attempt to influence the list of respondents to a request for proposals.[85] Further, it has been judged, including by the general population, that politicians have influenced the system directly for political gain.[86] The project for replacement of the Sea-King helicopter, long identified as a capability that needs replacement, most recently to support the CF planning scenarios, is a valid example. The maritime helicopter replacement project was initiated in 1977, over a quarter century ago, and has become one of the longest running and most controversial projects ever handled by DND. In a 2001 report, the Auditor General noted that the availability of the platform had declined from an unacceptable 42 per cent to 29 per cent.[87] Only through Herculean efforts of maintenance crews was general safety of the aircraft achieved. Despite these efforts, however, losses of aircraft and reduced serviceability became the norm rather than the exception. Initially the replacement program was part of a decision taken during the mid 1970s to modernize the navy. The new Halifax-class Canadian Patrol frigates were designed to carry new helicopters. As a result, in 1992 a contract was signed by the Progressive Conservative Government, led by the Honourable Brian Mulroney, with the

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[85] Ibid.

[86] Barry Cooper and David Bercuson,, "Helicopter Replacement Fiasco," Fraser Forum (June 2003): 29.

[87] Auditor General of Canada (2001), "National Defence: In Service Equipment," Report to the House of Commons (December), 10-8.

Italian-British consortium, EH industries, to procure 43 new EH-101 helicopters.[88] During an election later that same year, the Liberals under the leadership of Jean Chretien, made the acquisition an election issue. The Liberals contended that the EH-101s were not needed because the Cold War was over and, at the time, Canada was still seeking a Peace Dividend from the fall of the Berlin wall in 1989. Soon after taking office, with the stroke of a pen, the new government cancelled the contract. As a result, the Canadian taxpayer paid nearly half a Billion dollars in penalties for the cancellation, and nine years of intense staff work was wasted.[89]

While it could be contended that cancellation of the EH-101 was a choice of the Canadian people, given that the Liberals were elected based on the project being an election issue, it is clear that the final decision was political in nature. While the Liberal Government of the day recognized the need to replace the aging Sea Kings, the party considered the cost to be prohibitive given the demand for a Peace Dividend and the need to pay down the burgeoning public debt. Unfortunately, once the project was cancelled, there was no immediate plan to replace the helicopter. Politics once again took the fore when, upon reinitiating the project, the Liberals "altered the long-standing expectations of the proper relationship between civil and military authority."[90] Traditionally, the military identifies the operational capabilities required and the performance needed for the equipment to achieve its assigned role. The requirements/specifications are subsequently

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[88] Barry Cooper and David Bercuson,, "Helicopter Replacement Fiasco," Fraser Forum (June 2003): 28.

[89] Ibid.

[90] Brian W. Akitt, *"The Sea King Replacement Project: A Lesson in Failed Civil-Military Relations"* (DND: CFCSC: NSSC 4).

provided to the civil authority, which controls the military, for approval of the acquisition. In this regard, the military has a duty and a responsibility to define military requirements while the civilian authority has a duty and responsibility to recognize and support military requirements.

In the case of the Sea King replacement project, however, it would seem as if this process broke down and that, in fact, the Liberal Government changed the Statement of Requirement (SOR) so that the advanced version of the EH-101 (the same helicopter that had been cancelled in 1993) could not be selected as the winning aircraft for the revived Sea King replacement. Though military requirements for the replacement helicopter had not changed, the SOR was modified to permit, for example, 'controlled descent' in the event of loss of one engine, from the original requirement for a 'safe emergency landing'.[91] The difference is important. In order to make a safe landing an aircraft may have to maneuver to locate a clearing whereas a controlled descent over trees, for example, lasts until the aircraft meets the trees. An important distinction is evident between the two scenarios, with the former clearly the preference of the aircraft crews.

What, then, seemed to necessitate this civilian authority change in requirement? Given that the military requirement had not changed, the answer seems fairly evident; by changing the specifications the Government seemed hopeful that a competing supplier would emerge that could meet the revised requirements. This would enable the governing Liberal party to 'save face' as selection of the EH aircraft would have resulted in significant embarrassment for the Government in light of the fact that it had cancelled

[91] Ibid.

the original contract with much bravado (one may recall the televised episode of Prime Minister Chretian exuberantly ripping up the EH-101 contract and announcing "No Cadillac" helicopters) and great cost to the Canadian taxpayer. A competitor in fact did emerge; France based Eurocopter. The Eurocopter can make a controlled descent however cannot maneuver. Additionally, accusations have been levied that Raymond Chretien, Canada's ambassador to France, and nephew of the PM, lobbied on their behalf to his uncle.[92] While these contentions may in fact be coincidences, the perception remains that political influence was a significant factor first in the cancellation of the original product and later in the selection of the final replacement aircraft

In 2002, three companies submitted interest in the Sea King replacement project: AgustaWestland (formerly EH industries), offering the Cormorant helicopter, Sikorsky, offering the H-92 helicopter, and Lockheed Martin Canada, offering the Eurocopter NH basic helicopter. After a thorough examination of the submission, which included the elimination of the Eurocopter as it could not meet the SOR, the bid by Sikorsky represented the lowest cost and was declared the winner. [93] AugustaWestland subsequently launched legal action asking the Federal Court to force Ottawa to hand it the deal or start the decade-long selection process over again. AugustaWestland alleged that "the government's evaluation of the bids was biased, unfair and contrary to the rules of the procurement". AugustaWestaland also contended that the decision to select Sikorsky was politically motivated with the Government unwilling to select the Cormorant because

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[92] Barry Cooper and David Bercuson,, "Helicopter Replacement Fiasco," *Fraser Forum* (June 2003): 29.

[93] Department of National Defence, *"Backgounder: The Maritime Helicopter Project"* http://www.forces.gc.ca/site/newsroom/view_news_e.asp; Internet; accessed 31 January 2007.

it would be embarrassed given it had cancelled the original contract with EH industries AugustaWestland further contended that "the Federal government is putting its own survival before the well-being of CF personnel given that "Sikorsky's helicopter faces major re-design hurdles to operate on a ship."[94]

The CH-124 Sea King replacement project is an excellent example of how the mere perception of political interference can delay the acquisition of major capital equipment. Even if all of the contentions were coincidence, the fact remains that as a result of perceived political influence, delivery of essential equipment can be significantly delayed. In this instance, a project that was initiated in 1977 will not see delivery of its first replacement helicopter until the end of 2008; a full 30 years after the requirement for replacement was identified.[95] While this could be considered simply an anomaly, it is not. The CH-147 Griffon Tactical Helicopter is another example of political influence which has impacted detrimentally on CF operational capability. In a 2001 audit on "National Defence: In Service Equipment – Report to the House of Commons", the Auditor General criticized the aircraft for having "neither the lift, nor the versatility, nor the robustness required for military operations."[96] The report went on to propose that the Griffon helicopter had been purchased solely to provide financial support for the supplier, which was based in the province of Quebec. As stated by Colonel M.S. Skidmore, "The

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[94] CTV New Staffs, *"Ottawa sign Sikorsky to replace Sea Kings"*, CTV News, 24 November 2006, http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/1101242099465_96651299; Internet; accessed 31 January 2007.

[95] Department of National Defence, *"Backgounder: The Maritime Helicopter Project"* http://www.forces.gc.ca/site/newsroom/view_news_e.asp; Internet; accessed 31 January 2007.

[96] Auditor General of Canada (2001), "National Defence: In Service Equipment," *Report to the House of Commons (December)*.

Cabinet direction to buy the Griffon helicopter was unexpected and operationally unnecessary."[97] Taken from this is that the CF had no visible requirement for such a capability and that the decision to procure the helicopter was motivated by politics rather than by operational requirement.

In the near to mid future the CF will require replacements for the bulk of its maritime fleet, including the Tribal Class Destroyers (DDH) , the Canadian Patrol Frigates (FFG) and the Ammunition and Oil Replenishment Ships (AOR), as well as its fighter aircraft and, perhaps, direct fire vehicles. In order to ensure long-term survivability of the CF on the battlefield, the government must permit the CF to identify and present capability specifications. Granted, it is the civilian authority obligation to question selected capabilities and supporting equipment, however this process must not subject CF personnel to unnecessary risk during operations as a result of the acquisition of equipment that has neither the versatility nor robustness required in order to meet the demands of the mission. As concluded by Senator Kenny in 'On Track':

> …too often the Canadian Forces has wasted time and money designing equipment to meet some peculiar "Canadian' need that really doesn't exist in order to placate government wishes or as a result of industry influence.[98]

The existence of political influence is a reality, and one which the DND/CF must accept. Examples have shown that notwithstanding the approval of expenditures, and awarding of contracts, CF equipment procurement is not guaranteed. The fact that DND cannot control the Canadian politician means that senior military leadership must

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[97] M.S. Skidmore, "Authority, Responsibility and Accountability for Strategic Direction" (DND: CFCSC, NSSC 5), 8.

[98] Collin Kenny,"Canada's Military Fix: The Illusion and the Reality",*On Track* (Autumn 2006), 7.

endeavour to create and maintain close contact with the governing party. Only in this way can the Forces be assured that the needs of the military, and Canada, are afforded the appropriate degree of interest.

A current example of how political influence can shape DND/CF procurement is evident in the recently announced replacement of the CF Leopard tanks.[99] As previously noted, the Minister of National Defence (MND) had questioned the requirement for the tank to support future potential CF missions. The perceived need for heavy armour in support of the CF mission in Afghanistan has changed this position. The lack of air-conditioning has meant that CF soldiers are functioning in extremely uncomfortable conditions during the Afghanistan summer. As such, procurement of 100 tanks and the lease of 20 tanks are being progressed. While the safely and comfort of CF soldiers is certainly important, the question must be raised as to whether this expenditure is warranted given that the CF mission in Afghanistan is scheduled to close in 2009. Are the tanks being acquired for a short term requirement that may not exist in 2010? Will the new tanks be returned in 2009 and remain in Canada unutilized and, at the same time, consuming scarce maintenance funds? Although a question for another paper, the point to note is that the politicians have seized this issue as one considered important to them, as it has become important to the Canadian voting public. As, such, procurement is now proceeding with all due haste in order to fix the problem. Whether good or bad in the long run for the CF, now that the perceived requirement has political support it will

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[99] Department of National Defence, *"Backgrounder: Renewing the Canadian Forces' Tank Capability* http://www.forces.gc.ca/site/newsroom/view_news_e.asp?id=2252 ; Internet; accessed 31 January 2007.

proceed quickly.

It seems, therefore, that this aspect of the acquisition process can be improved. However the key to success will be capable leadership and a desire to deliver a capable Defence program. As stated by Kenny: "with political will, anything is possible; without it nothing is."[100] This quote serves to re-enforce the position that improvements are necessary and possible, however have a lower likelihood of success in the absence of political support.

**The Demand for Regional Economic Benefits**

A topic related to political influence is that of Regional Economic Benefits from military expenditures. This can include the presence of military installations, to the award of lucrative defence equipment and support contracts. The Federal government policy is clear when it comes to regional benefits:

> If Canadian regional benefits are possible, they must be explored and Canadian industries are usually given preferential treatment provided they are relatively competitive and can produce quality products.[101] In other cases, capital purchase bids have been formally restricted to Canadian firms or purchases have been directed to specific Canadian companies.[102]

There are two factors relevant to this topic as regards the purchase of major capital equipment; first is the fact that domestic purchase is on average more expensive, and second, domestic procurement takes on average longer than non-domestic

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[100] Standing Committee On National Security and Defence, The Government's No. 1 Job – Securing the Military Options it Needs to Protect Canadians (Ottawa, 2006), 11.

[101] Department of National Defence/Public Works and government Services Canada, *"Interdepartmental Review of the Canadian Patrol Frigate Project – Report on the Contract Management Framework"* (Ottawa: 26 March 1999), 14.

[102] James Ferguson, "In Search of a Strategy: The Evolution of Canadian Defence Industrial and Regional Benefits Policy" (1996), 122.

procurement.[103] In light of these two factors it is considered that, for the military, the requirement for regional benefits may not always be in the best interest CF operational requirements.

On the issue of expense, while regional expenditures may support local domestic economies, it is not clear that these benefit, overall, Canada, Canadians or the CF. The procurement of the Canadian Navy's Canadian Patrol Frigates (CPF) provides a clear example. The contract for the CPFs was awarded to a shipyard within Canada at a total cost of $9.54 billion. A post-project review revealed that of 11 other comparable frigates evaluated worldwide, nine were less expensive with six at least $100 million less expensive per vessel.[104] This equates to savings of $1.2 billion. Politically, however, it is better to be seen spending Canadian tax dollars domestically. This acknowledged, if this practice significantly increases the overall cost, as it clearly did for the CPF acquisition, then logic needs to demand that alternatives be identified. This would include potential procurement form offshore. Further, the cost savings could either be reallocated to other defence priorities or could, if deemed appropriate, be returned to the taxpayer in terms of reduced taxes or increased social programs. In this scenario the CF could, theoretically, acquire equipment more quickly, as it would be readily available on the global market,

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[103] Paul Manson (General Retired), "Procurement Cycle Growth – The race between obsolescence and acquisition of military equipment in Canada, 1960 to the present", presentation to the *Conference of Defence Association Institute*, 22 July 2005 As stated by Manson "An important conclusion drawn from the evidence is that 'Canadianization of new military systems should be avoided if at all possible, since this adds years to the cycle. The days when Canada could afford such luxury are long past. Fortunately, with major advances in standardization, and with the availability of a wide range of existing systems on the market, there should rarely be a need for the Canadian Forces to opt for the design and development of Canadian specific systems.. A second conclusion drawn by Manson is that the administrative process must be streamlined whenever possible. Even if this means accepting a reasonable measure of risk-taking.

[104] Canada, Chief of Review Services, "Report on Canadian Patrol Frigate Cost and Capability Comparison" (Ottawa: 26 March 1999), 9.

while the Canadian taxpayer would also benefit from acquisition of a defence capability at a significantly lower cost. It is contended that decreased taxes, increased social programs or improved defence capabilities could all be seen as regional benefits and should be recognized as such in any procurement analysis. The political environment, however, which focuses on short term issues and the appeasement of the public demand for 'its share of the defence dollar' results in acquisitions that would seem to be most efficient but, in reality, may not result in an overall benefit to Canadians. In short, short sightedness may not be in the interest of any of the interested parties, other than the government which sees regional benefits as a way to win votes for the next election. The fact that the 'next' election will always take priority over long term defence capital planning means that this issue will be difficult to redress. Unless governments are committed to long term planning, and are dedicated to expending tax dollars in a more efficient manner then the only solution for the CF is to acknowledge that this issue must be recognized and endeavour to win the support of the government through active consultation. The CF must become a voice for the Canadian public and not merely an end user of departmental expenditures. This can only be done through extensive analysis of requirements and, in consultation with other government departments (OGD) such as Public Works and Government Services Canada (PWGSC), identification of the most appropriate equipment supplier. This approach, in the long term, will create trust between DND and government to the point that while regional benefits can certainly be a factor in the decision making process they do not trump other decision making factors, such as quality and/or overall cost.

It was previously mentioned that procuring equipment from other than domestic markets can potentially reduce the acquisition cycle time. This is often the case because domestic industries are not always capable of delivering the required equipment because they are not appropriately tooled to manufacture the equipment to CF standards. Again, an example of this is the CPF program. As the Canadian ship building industry had not constructed major military vessels since the Tribal Class Destroyers was built in the early 1970's, there was extremely limited expertise when it came to military shipbuilding. The design, research and development added considerably to the acquisition process. It is contented that the United States Navy (USN) which was embarking on a significant downsizing of its maritime fleet could have provided the Canadian Navy with appropriate vessels for a fraction of the cost of the CPFs and much more quickly than was required for domestic procurement.[105] While, perhaps, not politically expedient, it is considered that all parties would have benefited; with acquisition of a good platform and at a reasonable cost. There would also have been the added benefit of increasing interoperability with our closest ally, the USN, given that we would be operating USN vessels. This is an added benefit given that one CF goal is to improve interoperability with our major allies.[106] While it could be argued that this approach did not work well for our recent submarine acquisition from the United Kingdom, and the ill-fated crossing of

[105] As noted by Wayne P. Hughes, the size of the US Navy was reduced from 600 to less than 400 ships in the 1990s. This occurred at approximately the same time as the new Canadian Patrol Frigates came into service. Given the US reductions it is probable that the required CF capability could have been acquired by purchasing surplus ships from the US. The requirement for a domestic product, however, precluded even considering procurement from the US as an acquisition option.

[106] Department of National Defence, *Shaping the Future of Canadian Defence: A Strategy for 2020* (Ottawa: DND, June 1999), 10.

the HMCS Chicoutimi, it could nonetheless be argued that it was not the process that failed but, rather, the preparation of the boats prior to their transfer to the Canadian Navy. It would, therefore, be inappropriate to blame the method of acquisition for the tragedy. There were, and are, no domestic suppliers of submarines, and to establish one would have taken a significant period of time and money. In consideration of the fact that a limited number of boats were to be acquired, this was the logical procurement methodology. The same argument could be realistically be made for the proposed Joint Support Ship (JSS). With so few in the Class, does it not make sense to procure the ship from existing, albeit non-domestic, sources? As observed by Senator Colin Kenny:

> It goes without saying that politicians like to buy what Canadian companies are selling. But Canada's capacity to defend itself is too important to have purchases skewed for non-military reasons. If the government wants to prop up Canadian companies, by all means do so. But not with scarce military funds, that should be spent on getting the very best equipment in the shortest period of time.[107]

As with the issue of political influence, the demands for regional benefits are real and do impact defence acquisitions. The requirement to provide for regional benefits has shown to increase procurement costs and delayed acquisition. While the ability of CF leadership to influence this issue may be limited there is still action that can be done to improve the process. These actions include the responsibility to act as good stewards of Canadian Tax-payer money and advise the government when regional benefits do not make sense; either because the cost of acquisition is prohibitive or because Canadian suppliers simply do not have the ability to provide the needed equipment in a timely

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[107] Collin Kenny,"Canada's Military Fix: The Illusion and the Reality",*On Track* (Autumn 2006), 7.

manner. The hope will be that the civilian leadership will see the wisdom in DND/CF recommendations and proceed as suggested.

**Trade Policy Inconsistency**

As previously stated, defence specific expenditures are exempt NAFTA and WTO regulations, while CAIT regulations do not provide for defence exemptions. NAFTA and WTO exemptions arise from the need to 'protect' national security. There seems to be no similar need for CAIT, however, as the trade agreement was 'Canadian'. CAIT regulates trade specifically between the Federal government, the Provinces and the Territories. Unfortunately, however, as previously indicated, foreign suppliers can 'step' around CAIT regulations by establishing a place of business in Canada.[108]. The result has been the development of a complex and schizophrenic process. NAFTA and WTO, which seek to enhance free trade, actually restrict competition as a result of the defence exemptions. CAIT, which seeks to preclude foreign involvement though direct support of domestic suppliers, actually supports global competition and foreign involvement, as any business can participate as long as it has an office in Canada. The effects of the trade policies, therefore, seem inconsistent with there intent. In this regard, the resolution of the inconsistencies are seen as an area where improvements in the procurement process could be achieved. This could be a simple matter of either eliminating the defence specific NAFTA and WTO exemptions or mandating under CAIT that no foreign

[108] Alan S. Williams, *Reinventing Canadian Defence Procurement: A View from the Inside* (Montreal and Kingston:: McGill-Queen's University Press, 2006), 8. The AIT states that only Canadian suppliers can challenge defence procurements. But it defines a Canadian supplier an any supplier that has a place of business in Canada. As stated by Williams, " Clearly, this is not a huge or difficult hurdle for foreign defence suppliers to overcome".

organizations (either internationally or nationally based) be permitted to participate in the defence procurement process Elimination of exemptions would increase competition and, theoretically, improve efficiency. It is recognized that opposition to such a move, based upon national security issues may arise, however, as stated by Manson, "with major advances in standardization of a wide range of existing systems on the market there should rarely be a need for the Canadian Forces to opt for the design and development of Canadian specific systems."[109] The interpretation of this assertion is that there will rarely be a time when the need to protect National security will require that global interest cannot be solicited. As such, elimination of NAFTA and WTO exemptions while maintaining the current practices of the CAIT would streamline and hence improve the efficiency of the procurement process.

**Equipment Cost and Funding Assurance**

As previously mentioned, political influence, the demand for regional benefits and trade inconsistencies are issues which can significantly impact upon the equipment procurement process. Projects, such as the Sea-King replacement, can drag on for years as a result of political influence, to the detriment of the CF. While government wishes for regional benefits from defence expenditures can unnecessarily increase the cost of projects, resulting in the potential for reduction in CF capability because limited DND/CF resource allocations cannot be expended more efficiently. A related issue is that of defence budgets and, specifically, long-term defence allocations. Capital projects, by

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[109] Paul Manson (General Retired), "Procurement Cycle Growth – The race between obsolescence and acquisition of military equipment in Canada, 1960 to the present", presentation to the *Conference of Defence Association Institute*, 22 July 2005,

there very nature, are long term. As previously detailed, the average period of time required to field a capability is approximately 16 years. This means that assurance of funding for major projects must be provided for future periods. The problem is that while a current government may support the acquisition of future capabilities it does not have to write any significant value cheques until the project is underway, which will normally be well into the future. As well, as previously mentioned, Defence is the largest proportion of Federal Government discretionary spending and, as a result, is often viewed as an easy target when government opposition parties make demands of a financial nature. These two circumstances can lead to two specific problems:

1. The government may change in the intervening period and the new government may not have the same defence priorities as the government that initiated the project; and
2. While the government many not have changed, the circumstances may have changed, with the result that new priorities may lead to a cancellation or amendment to the project.

An example of the first problem, once again, is that of the Sea-King replacement project. The Progressive Conservative (PC) government approved the acquisition of replacement helicopters in 1992. Subsequently, upon replacement of the PCs by the Liberal Party of Canada, the contract was torn up and the project deferred until such time a pressure was brought to bear to re-initiate the project. Unfortunately, while governments can pledge to provide long-term funding, the fact remains that funding is only assured for as long as the government of the day can maintain its position as the government, and perhaps not even

then. It remains to be seen whether the C17 strategic airlift project could survive the possible fall of the current PC government and replacement by a Liberal, NDP, Bloc or Green party, even with a signed contract for aircraft delivery.[110]

Some incremental progress has been made to provide for long-term support to capital projects. As an example, the C17 strategic airlift contract provides for 20 years of in-service support.[111] As such, once the capability is delivered the Logistics support to ensure long-term serviceability should be assured. The problem remains, however, that a change in government can impact the project to the point of cancellation or delay to the point that the support component becomes irrelevant. The solution to these problems would seem self-evident; to provide DND/CF with assurances as to long-term funding. Guarantees, however, are not part of the process. DND/CF must live with the real risk of government/policy changes and adjust accordingly. The implication for DND/CF is that, in the absence of assured long-term funding, delivery of capabilities will always be at risk and since changes of government and policy can be expected there is every reason to believe that delivery of capabilities, through procurement of major equipment, will remain at risk. The only reasonable solution is to ensure that all successive governments are aware of the capabilities required to provide for national defence and that defence should not be used as a pot of discretionary funds that can be modified with the change of government. While there is no guarantee that the acquisition process will improve, the

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[110] Department of National Defence. "Minister's Speech: Speaking Notes for the Honourable Gordon J. O'Connor, PC, MP, Minister of National Defence, for the Conference of Defence Associations Annual General Meeting 16 February 2007" http://www.dnd.ca/site/newsroom/view_news_e.asp; Internet; accessed 29 March, 2007.

[111] Department of National Defence, "Tactical Airlift Announcement 22 November 2005" http://www.dnd.ca/site/newsroom/view_news_e.asp; Internet; accessed 30 March 2007.

acknowledgement by DND that there is a funding risk can be included in project assessments and mitigating action considered.

**Personnel**

With the fall of the Berlin Wall in 1989, and the call for a Peace Dividend, there was an accompanying fall in the number of DND/CF personnel; both military and civilian. In fact, during the 1990s, the strength of the CF regular force component fell from 87,000 to 60,000 (a full 33 per cent reduction)[112,] while the target reduction for civilians employed within DND was 40 per cent, from 43,600 to 20,000.[113] This fact is important, as it concerns capital equipment procurement, simply because it requires people to progress the equipment acquisition process. Not only does it take a sufficient number of people to progress the projects, but it takes personnel of sufficient training and experience to do it effectively. For purposes of major capital acquisition this equates to senior personnel, both in terms of time and rank that have the necessary background, experience and skills to move projects forward to fruition. It is also necessary to maintain a sufficient force level at the more junior ranks, which can be trained to meet the needs of future equipment acquisition.

The Force Reduction Program (FRP) occurred in the early and mid 1990s.[114] FRP witnessed the general degradation of the senior expertise necessary to prosecute the major projects and, concurrently, loss of a significant number of junior personnel who were the

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[112] Figures provided for 1990 found at: Auditor General of Canada (1990). *"Department of National Defence: Human Resource Management – Planning and Personnel Management"* , 7. Figures provided for 1998 found at Official Opposition response to the SCONDVA Majority Report: *Real Commitment: Addressing the underlying causes of low moral and the poor quality of life in the Canadian Forces* – (Ottawa, 1998), 3.

[113] Chief of Review Services, *"Audit of Civilian Reduction Program June 1997*", i.

future of the CF. As noted by Stone:

> Rather than using the reduction plan to smooth out the bubble that was created in the 1980s increases in personnel numbers, the CF tried to make the process largely voluntary, an effort to 'do the right thing'. The end result was that mid-career members stayed because they had an established investment in the organization while early career personnel left.[115]

In effect, what was created was a 'hole' in the CF, wherein the Forces were under the preferred manning level (PML) for junior officers in the year 2000 (ie. those with 3 to 8 years service), and over the PML for intermediate officer – senior captains through to majors (ie. those generally with 10 to 20 years).[116] As quoted from Stone, there was "…a gap or mismatch in the ideal profile versus the actual profile for years of service of officers and non-commissioned members of the CF. The difficulty came about because FRP did not target the right mix of age and occupation categories."[117] In the rush to meet the demands of a Peace Dividend the Forces paid a high price, and one which is still impacting CF operations today.

The 1994 Defence White Paper called for a target strength of 60,000 personnel.[118] Due to the FRP and reduced recruiting and attrition, by 2005 the actual CF strength was well below the approved level of 60,000.[119] This issue was becoming worse as the intermediate officers who had stayed on during the purge of FRP began to retire in strength in the mid 2000s. The failure to recruit to sufficient levels over the latter part of the 1990s and the apparent inability to recognize the impact on future CF requirements

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[114] James C. Stone, *Doubling the Size of the Defence Budget: The Economic Realities of Strategy 2020* (Kingston: Royal Military College, 2004), 278.

[115] Ibid., 281.

[116] Ibid.

[117] Ibid.

[118] Canada, "1994 Defence Paper" (Ottawa: Canada Communications Group, 1994).

means that, today, the CF is now in critical need of intermediate level officers. This is because the impact of FRP, through reduction of younger personnel in the early to mid 1990s, is now being felt at the intermediate level. DND/CF must bear a significant level of responsibility for this situation, as it developed the Force Reduction Program in a rush to meet the demands of higher authority. This situation is currently impacting DND/CF ability to prosecute capital projects, as personnel can only be in one place at a time; employed in either operations or administration. In this regard, with the current and admittedly correct emphasis on operations, administration will undoubtedly suffer. It would not be too critical to suggest that better planning could have resulted in a much better outcome. In the long-term, however, this issue should become manageable as recruiting efforts increase the number of CF personnel. However, in the short-term, the dearth of a sufficient number of personnel has the potential to delay critical capital acquisition projects. This is a risk which DND must accept and endeavour to mitigate through prioritization of personnel assignment and the continued development of internal policies and procedures to streamline the acquisition process.

As previously indicated, the Public Service component of the department also suffered from significant personnel reductions in the 1990s. At the same time as the CF FRP was being initiated, a Civilian Reduction Program (CRP) was occurring.[120] This would also prove detrimental to the equipment acquisition process. As ADM(Mat) is the DND organization responsible for the procurement of defence Capital equipment, and ADM(Mat) employs a significant number of procurement personnel, the reduction

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[119] Department of National Defence, "2003-2004 Report on Plans and Priorities:, 24.
[120] Chief of Review Services, *"Audit of Civilian Reduction Program June 1997*", i.

impacted directly on procurement efforts. A significant observation made by Chief of Review Services regarding the Planning and Control of the Reduction included:

> At some locations we found that management was left under-resourced at a particular group and level because of individuals taking the CRP package…To correct this situation there is the need to focus on operations when making critical down-sizing decisions…and for careful planning to ensure that skills requirements and not seniority or other personnel considerations drive the reduction process…as well as to complete strategic plans and define the end-state organizations prior to implementing the CRP.[121]

The CRP, therefore, experienced the same problems and issues as the FRP. Likewise, as with the FRP, the department has suffered the effects into the twenty-first century as reduced civilian staffs are not capable of progressing, as effectively, the major capital projects; especially in light of the increased CF operational tempo and the concurrent demand for new equipment.

Increases to personnel levels, to support equipment procurement, will improve the process. More staff means more capability to process the required documents. With the governments desire to increase the size of the forces and the public service, an improvement in the time to prosecute a capital project should result.

**Change and Organizational Inertia**

As stated in the previous section, the ability to streamline internal operating policies and procedures can mitigate some of the factors that currently inhibit the optimal proficiency of the equipment acquisition process. This said, organizational inertia can be the biggest impediment to change. The DND/CF is the largest Federal Department. It has been and is also governed, perhaps even handcuffed, by such systems as the DPMS

and the DMS. In these circumstances change is slow and often protracted, despite the efforts of a perceived 'need' to change. Change is often openly resisted by the 'old guard' who feel comfortable with the current establishment. The difficulties become even more apparent, for DND, when one considers that those essential for implementing changes (the defacto 'change agents') were significantly reduced during the FRP era. Overcoming organizational inertia, in the final analysis, becomes a leadership issue. Change cannot be successful without the support of senior leadership.

The issues of change and organizational inertia are addressed in the DND publication "Leadership in the Canadian Forces – Leading the Institution"[122] Therein the requirement to 'Understand the complexity of change' and the need to 'Implement change though creation of an environment conducive to change' are addressed. The CF recognizes that resistance to change can, and will, impact performance and productivity unless it is effectively managed. Pre-eminent amongst the issues are the need for leadership 'buy-in' of change initiatives and effective communication to those that will be implementing the change(s). A failure of DND/CF leadership to effectively manage change and organizational inertia will therefore, detrimentally impact the efficiency of the acquisition process.

As a result, the internal DND policies and procedures governing equipment acquisition, developed and implemented by ADM(Mat), as previously detailed, had a far better chance of success than had these same policies not been fully supported by the

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[121] Ibid., A-1/5.

[122]Department of National Defence, Leadership in the Canadian Forces – Leading the Institution (A-PA-005-000/AP-008) (Ottawa: DND Canada, 2007), 12-14.

senior leadership. Change and Organizational inertia can, therefore, prove detrimental to change initiatives; however through effective leadership the impacts of resistance can be mitigated and any changes to the acquisition process will be more readily accepted.

**Summary of Current Issues**

A review of specific current procurement issues , including political influence, the demand for regional economic benefits, trade policy inconsistency, personnel and change and organizational inertia, has revealed that the equipment acquisition process is highly dependent on a number of internal and external factors for success. While some of these issues may be addressed through development and implementation of internal changes to the process, others require that external organizations provide active support to DND/CF initiatives. Mr. Alan Williams, former ADM(Mat), has recognized these issues and has provided some insight and recommendations to achieve process improvements. These will be reviewed in the following chapter. As will be seen, internal changes have proven, to date, to be less effective than hoped, while external factors will require ongoing senior DND/CF leadership involvement as well as recognition that acceptance of risk is an integral aspect of the procurement process.

# CHAPTER 5

## ACQUISITION CYCLE TIME: A CONTEMPORARY PERSEPECTIVE BY MR. ALAN WILLIAMS

Strategy 2020 identifies, as one of its 'Resource Stewardship' targets: "Revitalize the departmental acquisition process with the aim of reducing acquisition time for departmentally approved projects by 30%."[123] With an average acquisition cycle time of approximately 16 years, this would reduce the acquisition process, from identification of the problem to project close-out, to approximately 11 years. During his tenure as Assistant Deputy Minister Materiel [ADM(Mat)], Mr. Williams dedicated much of his time to accomplishment of this task. Specifically, Mr. Williams introduced acquisition reforms such as total package procurement, wherein the maintenance and support aspects of equipment procurement are considered as part of the overall project.

Mr. Williams also supported the use of Commercial and Military off the Shelf (C/MOTS) products in order to reduce time and lower risks and costs.[124] Mr. Williams also sought and obtained the support of the Vice-Chief of Defence Staff (VCDS) who, as the Departmental Resource Manager, came to be a close ally of ADM(Mat). Between the two offices, VCDS and ADM(Mat), amendments were made to the defence procurement process that sought to reduce the time permitted from Statement of Requirement (SOR) to Contract Award, to 48 months (four years) from 107 months (nine years). Similarly, initiatives were implemented to pursue reduction in delivery time from 70 months to 60

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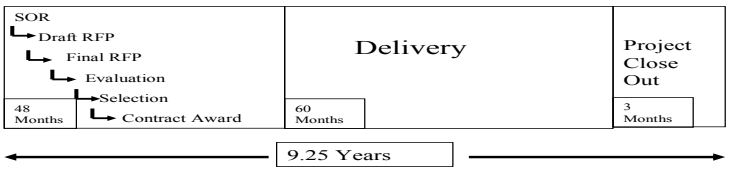
[123] Department of National Defence, *Shaping the Future of Canadian Defence: A Strategy for 2020* (Ottawa: DND, June 1999), 11.

[124] Alan S. Williams, *Reinventing Canadian Defence Procurement: A View from the Inside* (Montreal and Kingston:: McGill-Queen's University Press, 2006), 96.

months and project close out was reduced from 13 months to 3 months. Overall, the procurement cycle time was reduced, at least in theory, from 15.8 years to 9.25 years.[125] Figure 3 provides an illustration of the reduced procurement cycle time, by phase, of 9.25 years. [126] Figure 3 can be compared to Figure 1 where the cycle time was 15.8 years.

**Figure 3: Historical Cycle Times in the Defence Procurement Process – 9.25 years**




As such, it is clear that significant steps have been made to enable reduction in procurement cycle times. In theory, at least, the target of reduction of 30 per cent has been achieved and exceeded. In fact, with a reduction of 6.75 years, procurement cycle time could be reduced by 42 per cent.

Compared to historic cycle times, this potential result is a great step forward and it seems clear that DND/CF are committed to acquiring the required capital equipment as quickly and efficiently as possible. As previously noted, however, DND/CF are not the masters of their own fate when it comes to equipment procurement and delivery.

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[125] Ibid., 96-97.

[126] Alan S. Williams, *Reinventing Canadian Defence Procurement: A View from the Inside* (Montreal and Kingston: McGill-Queen's University Press, 2006), 97.

External organizations and offices, such as TB, PWGSC and the PMO can significantly impact procurement cycle times. PWGSC can be delayed in the development and award of a contract, TB may delay progress of a project due to monetary issues, while the PMO may delay or cancel a project as a result of political expediency. The actions previously cited to reduce acquisition cycle times are internal to DND/CF; this meaning that the VCDS and ADM(Mat) are both DND organizations. Therefore, while the VCDS and ADM(Mat) can promulgate policy internal to DND, they remain at the pleasure, perhaps mercy, of external organizations to actually prosecute the projects. As such, as stated by Mr. Williams, "While actions internal to DND are necessary, they will not be sufficient to achieve the target cycle times."[127]

Mr. Williams has gone further to propose some recommendations to ensure maximum support from external organizations so that target cycle times can be achieved. Some of these measures include:

1. The government should combine the defence-specific PWGSC contracting resources within DND procurement resources into a single organization, Defence Procurement Canada (DPC);
2. Establish a small interdepartmental team, with representatives from PWGSC, DND, Treasury Board Secretariat, Industry Canada, Justice, and the Privy Council Office;
3. DND should streamline its internal decision-making processes and assist the Treasury-Board Secretariat in streamlining the Treasury Board

[127] Ibid.

submission process;

4. The minister of National Defence should present the Strategic Capability Investment Plan (SCIP) to cabinet, and the PMO, for approval; and

5. The Standing Committee on National Defence and Veterans Affairs should review and report regularly on the strategic issues surrounding DND's capital program on an ongoing basis.[128]

While Mr. Williams details a number of other recommendations, the above listed recommendations are especially noteworthy as they have, as there goal, the objective of creating a team that can prosecute DND projects from a holistic perspective. Getting all of the key players together and selling DND requirements as being of the highest national priority would go far in expediting acquisition. In some cases it is just matter of informing team members of DND requirements and/or intentions. In other cases, such as with Treasury Board and PWGSC, it is a matter of developing policies and procedures that can speed up the administration of procurement. With others, such as the PMO, it is a marketing endeavour wherein DND/CF needs to sell its goals and initiatives. The ability to sway the senior decision makers is considered absolutely critical to the success of any initiatives to improve capital equipment procurement. As stated by Senator Colin

[128] Ibid., 104-108. In December 2003 the Department of National Defence released its first ever Strategic Capability Investment Plan (SCIP). The product of more than a year's work among the Department's force planners and senior management, including the Deputy Minister, CDS and the MND, the SCIP was heralded as providing a new approach and new priorities for equipment acquisitions. The objective of the SCIP is to establish a mechanism by which all of the equipment, infrastructure-construction, human resources, technology development, and concept development-experimentation requirements of a Canadian Forces core capability are brought together in holistic fashion in order to create that specific capability. The SCIP is an integral part of the CF Capability Based Planning process. Additional details on the SCIP, including origins, evolution and future prospects can be found in Dr. Elinor Sloan's paper entitled, "The Strategic Investment Plan: Origins, Evolution and Future Prospects", 1-28. The paper also provides insight into how the CF CBP process and the SCIP function together.

Kenny, "It will be difficult, if not impossible, to create the kind of Canadian Forces that people of this country need without strong support from our national politicians. Recent history of the Canadian Forces offers one lesson; with political will, anything is possible; without it, nothing is."[129] All this to say that DND remains one player in a process that contains many players; all of whom have their own agendas and goals. As such, while DND can develop policies and procedure to improve the process, it will still be constrained, to a large degree, by the actions, or perhaps inactions, of other organizations. This is an obstacle that, for at least the foreseeable future, DND must accept and work to overcome. A final thought from Mr. Williams drives this issue home:

> For many years informed people have been complaining that Canada takes too long to buy things for its military and often doesn't get good value for money. A number of improvements have been made especially within the public service. But much remains to be done, particularly in streamlining the process at the political level. Getting it done requires the desire to reform, which has long been present, but also a clear sense of where we need to go and a detailed plan for getting there.[130]

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[129] Standing Committee On National Security and Defence, The Government's No. 1 Job – Securing the Military Options it Needs to Protect Canadians (Ottawa, 2006), 11.

[130] Alan S. Williams, *Reinventing Canadian Defence Procurement: A View from the Inside* (Montreal and Kingston:: McGill-Queen's University Press, 2006), 109.

# CHAPTER 6

## CONCLUSION

The thesis of this paper is that "Despite changes to the capital equipment procurement strategy and administration, and recently announced increases to the Defence budget, the current acquisition process can be improved to more effectively meet the needs of Canadian Forces operational requirements." Historically the Canadian defence procurement process has been complex and cumbersome; to the point that, as Senator Kenny states: "The time lag between identifying a need for a piece of equipment and delivery is lo long that the equipment is obsolete when it arrives."[131] Under Mr. Williams's guidance, as ADM(Mat), the goal of reduction of 30 per cent was proposed and pursued. As a result, DND moved towards development of initiatives with the goal of achieving this objective. The efforts were noteworthy, as were the recommendations, by ADM(Mat), to create a Team, comprising all of the key players. The theory behind this latter recommendation was that a team working together, with a single objective in mind (that being the efficient procurement of defence equipment and capabilities), would by virtue of the resulting collective synergy, produce a more efficient process.

Despite the above initiatives, including the implementation of Business Planning, and Capability Based Planning, however, procurement cycle times remain lengthy. The two significant obstacles to improved procurement efficiency are the bureaucratic process(es) within which procurement must function and the political environment which impacts DND on a regular and ongoing basis. Initiatives to streamline the procurement

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[131] Senator Colin Kenny, Chair of SCONSAD, "DND Equipment Procurement," Ottawa Citizen, 23 February 2006.

process can and have been implemented, however the empirical evidence has shown that procurement cycle times have not significantly reduced. The conclusion, in this regard, is that modification to procurement processes will have only limited impact on reduction of acquisition times. The more significant issue is that, unfortunately, different organizations have different goals and objectives. As such DND is, and will be for the foreseeable future, functioning under the pleasure of supporting organizations. The only way for DND to ensure that acquisition cycle times are kept to an acceptable level, therefore, would be for DND to control the entire process from cradle to grave. Under the current governmental system, however, this is neither realistic nor preferred. This is because, in the final analysis, military necessity will always be subordinate to political requirements.

Decisions regarding defence, especially when it comes to the acquisition of major capabilities, are necessarily made at the political level. After all, the Canadian military responds to the wishes of government, so it would not be prudent for the military to unilaterally decide what, and how much, equipment it should have. The process demands that the military identify what capabilities it requires, in order to meet governmental objectives, followed by approval of the government to procure the necessary equipment. This is essential given that Canada is a constitutional monarchy and not a Military led Dictatorship. As a result, the Canadian Military will always be subject to the desires of current governments and political influence. This can result in cancelled projects, the requirement for regional benefits, reduced budgets, and other manners of political influence. Therefore, while DND may implement procedures to improve procurement

cycle times, the existence of external influences will always be present. The best that DND can hope to achieve is to acknowledge that this risk is ever present and endeavour to mitigate the risk as much as possible. As such, it is contended that action to 'sell' military requirements to all previously mentioned key players, plus the general population, would be far more effective, though perhaps no more important, than administrative improvements. In the end, if DND can effectively market its own requirements, while at the same time showing significant improvement in the effectiveness of the department, then it stands a good chance of developing a foundation of support from those organizations and offices that can speed up, delay or even cancel capital projects. Even if DND improves its internal efficiency through initiatives such as the move towards Commercial Off the Shelf equipment, however, if it is not successful in inculcating external influences into the process then progress will be limited, if not stagnated completely.

A combination of improvement in internal processes, cooperation and coordination with external organizations, an understanding of political influence as well as the demands for regional economic benefits, DND/CF personnel increases, and recognition that change and organizational inertia can impact the process, can all influence the acquisition cycle. Initiatives to reduce acquisition cycle times need to focus on these areas as they retain the greatest potential for efficiency improvements. There must also be an acknowledgement by DND that risk must be accepted, because DND does not control the entire process. These are noble and lofty goals. In a recent *Toronto Star* article, General Rick Hillier (CF Chief of Defence Staff - CDS) was quoted as saying

that, with regard to the need for CF strategic sealift capability "…acquisition for an amphibious ship will not be dragged out like the one for the new maritime helicopter. The troops need it. They need it now, not 15 years from now, not 10 years from now, not even five years from now. They need it as soon as possible."[132] This brand of resolve, from CF senior leadership, is commendable and essential in order to ensure that the requirements of the military are known, acknowledged, supported, and procured in a timely manner. Only time will tell if the persistence of the CDS will pay dividends in terms of an improved equipment acquisition process. While the factors and issues that can detrimentally impact the acquisition process cannot be completely eliminated, steps can definitely be taken to improve system efficiencies. Those actions that can be implemented/developed internal to DND should be progressed, while additional effort needs to be directed to mitigating external influencing factors.

[132] Sharon Hobson, "Plain Talk," *Canadian Naval Review* Volume 1, Number 4 (Winter 2006), 28.

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