

Creating an Acquisition Model that Delivers

La création d'un modèle d'acquisition qui donne des résultats

Vimy Paper 1
Cahier Vimy 1



Conference of Defence Associations Institute
(CDAI)

L'Institut de la Conférence des associations de la défense
(ICAD)

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**Promouvoir un débat public éclairé
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CONFERENCE OF DEFENCE ASSOCIATIONS INSTITUTE (CDAI)
L'INSTITUT DE LA CONFÉRENCE DES ASSOCIATIONS DE LA DÉFENSE (ICAD)

The CDAI is a charitable and non-partisan organization whose mandate is to provide research support to the Conference of Defence Associations (CDA) and promote informed public debate on national security and defence issues.

The CDAI fulfills its mandate through the following activities:

Vimy Award Dinner – Benefit gala recognizing the *Vimy Award* recipient (an outstanding Canadian who has contributed meaningfully to the defence and security of Canada), and the *Ross Munro Media Award* recipient (a journalist who has made an outstanding contribution to the general public's understanding of Canadian security and defence issues).

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Tables rondes et allocutions – dans le cadre desquelles des conférenciers éminents abordent les enjeux d’actualité.

Foreword

General Paul Manson (Ret'd)
President CDAI

The Conference of Defence Associations Institute is pleased to publish this, the first in a series of monographs to be called **The Vimy Papers**, each of which will offer expert opinion and factual commentary on a specific and important subject related to national defence.

This inaugural paper, although concise, lays out a comprehensive picture of the crisis in defence acquisition in Canada today. More importantly, it presents considered ways to resolve the crisis; hence its title **Creating An Acquisition Model That Delivers**.

The timing of this publication is no coincidence. Coming so soon after the election of a new Conservative Government under Prime Minister Stephen Harper, we see a window of opportunity through which the government, led by the Minister of National Defence, can initiate and execute changes to an equipment acquisition system that over the years has become quite dysfunctional, to the point where

Avant-propos

Général Paul Manson (ret.)
Président de l'ICAD

L'Institut de la Conférence des associations de la défense est heureuse de publier la première d'une série de monographies intitulée les **Cahiers Vimy**; chacun de ces documents donnera des opinions d'expert et des commentaires factuels sur un sujet précis qui est important à la défense nationale.

Le document inaugural, bien que concis, brosse un tableau détaillé de la crise dans laquelle est plongé le processus d'acquisition du secteur canadien de la défense. Avant tout, il présente des moyens censés de résoudre la crise, d'où son titre : **La Création d'un modèle d'acquisition qui donne des résultats**.

Le choix du moment de la publication de ce document n'est pas une coïncidence. Tout juste après l'élection d'un nouveau gouvernement conservateur sous la direction du premier ministre Stephen Harper, nous voyons une conjoncture propice à ce que le nouveau gouvernement, mené par le ministre de la Défense nationale, initie et apporte des changements au système

procurement cycles of 15 years or more are common.

But fixing the system, although necessary, is not sufficient. It must be put quickly to work to resolve the distressing state of the Canadian Forces' equipment holdings, some of which are beyond the critical stage, a consequence of acquisition system difficulties and political foot-dragging over the past decade or two.

The urgency is all the more acute in light of the operational challenges facing Canada's military today in a troubling and unstable world. Some Canadians may not admit it, but our country is at war. We face an insidious terrorist enemy not bound by moral restraint or geographical limits. For the first time in almost two hundred years our own territory could become a battleground. Unless the Canadian Forces are properly equipped to join like-minded allies in meeting the threat, our nation can expect difficult times.

d'acquisition de matériel qui est devenu très désorganisé, au point que des cycles d'approvisionnement de 15 ans et plus sont maintenant communs.

Bien qu'il soit nécessaire de réparer ce système, cette mesure en soi ne suffit pas. Il faut rapidement la mettre en œuvre pour résoudre l'état alarmant du matériel en dotation des Forces canadiennes, car son état a dans certains cas dépassé l'étape critique; il s'agit de la conséquence des difficultés rencontrées par le système d'acquisition, et d'un gouvernement qui traîne les pieds depuis plus d'une dizaine d'années.

Le besoin se fait encore plus pressant à la lumière des défis opérationnels que doivent relever les militaires canadiens d'aujourd'hui, face à une situation mondiale instable et troublante. Certains Canadiens ne l'admettent pas, mais notre pays est bel et bien en guerre. Nous faisons face à un ennemi terroriste insidieux qui ne fait l'objet d'aucune contrainte morale ni limite géographique. Pour la première fois depuis près de 200 ans, notre territoire pourrait devenir un champ de bataille. À moins que les Forces canadiennes ne soient correctement équipées pour se joindre à des alliés aux vues similaires et faire face à cette

menace, notre nation peut s'attendre à des temps difficiles.

This is a challenge not just for the Department of National Defence, or for other departments and agencies of government. Neither can the politicians alone be expected to resolve the acquisition problem. Ultimately it is the people of Canada (and the media who inform them) who must understand and support the changes that have to be made.

C'est un défi non seulement pour le ministère de la Défense nationale, mais également pour d'autres ministères et organismes gouvernementaux. Les politiciens ne peuvent résoudre eux-mêmes le problème d'acquisition. Il revient au bout du compte à la population canadienne (et aux médias qui les informent) de comprendre et d'appuyer les changements qui doivent être apportés.

This publication is presented as a step in the right direction, and in the hope that it will provide a stimulus to action.

Cette publication représente un pas dans la bonne direction, dans l'espoir qu'elle incitera à l'action.

General Paul Manson (ret'd)
President CDAI

A handwritten signature in black ink, appearing to read 'Paul Manson', written in a cursive style.

Le président de l'ICAD
Général Paul Manson (retraité)

Introduction

Richard H. Gimblett

The genesis of this collection of essays was the premise introduced in the Winter 2005 edition of ***On Track***, the newsletter of the Conference of Defence Associations Institute (CDAI), that “Procurement Deferred is Policy Denied.” Offering a list of “The Major Impediments to Defence Procurement”, that article concluded that the greatest gains in reducing Canada’s procurement gestation could be made by examining national acquisition strategies. CDAI quickly assembled a small team of experts to explore in greater depth the feasibility of the premise. The result is this first of ***The Vimy Papers***, entitled ***Creating an Acquisition Model that Delivers***.

Our timing is indeed auspicious, what with the publication of this volume coinciding with the recall of Parliament for the spring 2006 session. Making the acquisition process “work” has become all the more critical with the installation of a ministry committed to an ambitious rebuilding of the Canadian Forces. It is a time of

À l’origine de cette série de textes se retrouve le postulat mis de l’avant dans l’édition d’hiver 2005 du bulletin ***On Track*** de l’Institut de la Conférence des Associations de la Défense (ICAD) selon lequel « un approvisionnement reporté correspond au reniement d’une politique ». Cet article, après avoir établi une liste des principaux obstacles à l’approvisionnement de défense, conclut que la meilleure façon de réduire les longues périodes de gestation des approvisionnements en équipement au Canada consistait à travailler sur les stratégies nationales d’acquisition. L’ICAD a réuni une petite équipe d’experts pour examiner en profondeur la validité de ce postulat. Le résultat est cette première série des ***Cahiers Vimy***, intitulé ***La Création d’un modèle d’acquisition qui donne des résultats***.

Nous arrivons à point nommé dans la mesure où cette publication paraît au moment où le Parlement entame sa session de printemps. Faire en sorte que le processus d’acquisition « fonctionne » est devenu d’autant plus essentiel que nous avons maintenant un ministère décidé à réaliser un programme ambitieux

great hope. However, as someone else has noted, “hope is not a method.” If there is one major point to come out of this collection, it is that the Canadian Forces cannot, on their own, make the process work. Our readers are sure to include many in uniform and their civilian counterparts in the Department of National Defence’s materiel branch. Some of what we have written will be new to them, but not much. Instead, it is aimed more at the full range of politicians and media who must be mobilized to continue the momentum of support for reform, and the officials and bureaucrats from other government departments and secretariats whose energy is needed to instil some urgency to the implementation of our recommendations.

This slim volume does not pretend to have all of the answers, but it does give a fairly full exploration to what is wrong with the present system. Going beyond a simple recitation of woes, however, it presents some unfamiliar aspects of the acquisition problems

de reconstruction des Forces armées canadiennes. Nous traversons une période marquée d’espoir mais, comme quelqu’un l’a fait remarquer, « l’espoir n’est pas une méthode ». Et s’il y a une leçon qui se dégage de cette collection d’articles, c’est que les Forces armées canadiennes ne peuvent imposer le changement à elles seules. Nos lecteurs comprendront de nombreux militaires et leurs collègues civils de la direction générale du matériel au ministère de la Défense nationale. Certains aspects de ce que nous avons écrit ne seront pas entièrement nouveaux pour eux mais il en est bien d’autres qui le seront. En fait, ces articles ont pour cible la gamme complète du monde politique et des médias qui doivent être mobilisés pour maintenir l’appui à la réforme. Les autres cibles sont les fonctionnaires des autres ministères et agences gouvernementales dont la coopération énergique et soutenue est nécessaire pour susciter un sentiment d’urgence en faveur de la mise en œuvre de nos recommandations.

Ce mince volume ne prétend pas offrir toutes les réponses mais il fournit une analyse passablement profonde de ce qui va mal dans le système actuel. Allant au-delà d’une simple répétition des failles évidentes, ce cahier présente certains aspects méconnus des

generally facing the CF, puts into context the peculiarities of the disparate segments of the industrial base upon which the various services draw, and develops some principles to guide renewal. Our authors experienced the problems firsthand and from a variety perspectives: all were very senior players in the CF-DND establishment (notes on their biographies can be found at the end of the book), and most have gone on in retirement to careers in other related fields. There are sure to be critics who will dismiss them as shills for the military-industrial complex, if such a thing can be said to exist in Canada; a more generous interpretation would recognize that their already broad experience has become even better informed. None of them take advantage of this platform to pitch a product. Instead they write from the heart, committed to reform of an institution they love. With the twin benefits of distance and hindsight, they can offer candid advice, and in some cases speak the unspeakable.

problèmes d'acquisition auxquels font face les FC; il situe dans leur contexte les particularités des segments disparates de la base industrielle sur laquelle reposent les différents services ; enfin, les auteurs y mettent en exergue certains principes destinés à orienter le renouvellement. Ces auteurs ont fait face eux-mêmes aux problèmes identifiés et les ont vécu selon diverses perspectives : chaque auteur a occupé un poste de première importance au sein des forces armées canadiennes et du MDN – on trouvera leur biographies à la fin du cahier – et la plupart d'entre eux ont entamé une seconde carrière dans des domaines connexes. Il est évident que les critiques les taxeront de suppôts du complexe militaro-industriel comme si ce dernier existait au Canada. Une interprétation plus généreuse consisterait à reconnaître que leur expérience déjà vaste s'est affinée encore davantage. Aucun des auteurs ne se sert du podium qui lui est offert pour faire la réclame d'un produit. Ils écrivent ce que leur cœur leur dicte, reflétant leur engagement désintéressé à la réforme d'une institution qu'ils adorent. Avec l'avantage de la distance et de l'expérience, ils peuvent offrir des avis sincères et même risquer de dire des choses que l'on n'oserait pas articuler en temps normal.

Our authors explore a number of options, many running counter to received wisdom. Paul Manson and Howard Marsh, respectively the President of CDAI and senior analyst of the Conference of Defence Associations, look at the constraints under which the CF, DND and industry must labour, and graphically illustrate that “the consequences of continuing down the current path are serious, real and untenable.” Pierre Lagueux, now a senior partner of a major consulting firm, draws upon his time at the helm of the materiel branch to define a defence acquisition strategy touching upon issues that cross departmental boundaries and impact on how industry responds to requirements. The remaining chapters develop aspects of this strategy. As President of the Shipbuilding Association of Canada, Peter Cairns dispels many of the myths surrounding what is in reality a vital and innovative strategic industry with the capacity to meet the challenges ahead. Howard Marsh returns for a closer look at army acquisitions, concluding that the major decisions regarding weapon systems already have been made and that the focus now must be on the complex “human-equipment interface” to support the soldier in the field. Paul Manson also explores the challenges and opportunities in air force acquisitions that, without recognition of the many significant

Nos auteurs envisagent diverses possibilités, souvent jugées dans le passé comme allant à l'encontre de la logique intuitive. Paul Manson et Howard Marsh, respectivement président de l'ICAD à l'époque et l'Institut de la Conférence des Associations de la Défense, analyste principal de la Conférence des Associations de la Défense, examinent les contraintes sous l'empire desquelles les FC, le MDN et l'industrie doivent fonctionner, et illustrent de façon graphique que « les conséquences d'une continuation de la politique actuelle sont graves, sérieuses et insoutenables ». Pierre Lagueux, aujourd'hui associé chez une grande société de consultants, puise dans son expérience à la tête de la direction générale du matériel pour définir une stratégie d'acquisition en matière de défense qui recouvre les questions de coordination interministérielles et leur impact sur la façon dont l'industrie répond aux exigences. Les chapitres suivants élaborent les différents aspects de la stratégie. En tant que Président de l'Association de la construction navale du Canada, Peter Cairns évacue les nombreux mythes qui entourent ce qui est en réalité une industrie stratégique novatrice et vitale, à même de relever les défis que lui réserve l'avenir. Howard Marsh examine à nouveau les acquisitions pour l'armée de terre et conclut que les grandes

niche competencies of our viable aerospace sector, are too often dismissed as off-the-shelf purchases from foreign suppliers. Brian Macdonald has been a regular contributor to past CDAI efforts and will be replacing Howie Marsh as senior analyst; in order to underscore the criticality of time delays imposed by the present “intended rationality” acquisition process, he looks at two case studies in joint acquisitions that have gone awry, and argues that it now makes increasing sense to adopt an alternate “satisficing” model. Finally, the concluding chapter presents a defence acquisition template that balances the various military, political and industry expectations.

décisions en matière de systèmes d’armement ont déjà été prises et qu’il faut maintenant faire porter tous les efforts sur la relation entre la facteur humain et l’équipement commandé pour mieux appuyer le soldat sur le terrain. Revenant sur le sujet à son tour, Paul Manson approfondit les défis comme les possibilités qui se présentent en ce qui concerne les équipements de la force aérienne, thèmes que l’on a tendance à trop simplifier comme s’il suffisait d’acheter « à l’étalage » ce qu’offraient les fournisseurs étrangers, sans prendre le moindrement en compte les créneaux de compétence significatifs de notre propre secteur aérospatial. Brian Macdonald est un artisan et collaborateur assidu de l’ICAD et remplaçant de Howie Marsh comme analyste senior; il examine deux études de cas d’acquisitions interarmées qui sont allées de travers pour bien marquer combien les délais imposés par « la rationalité voulue » dans le processus d’acquisition ont un impact délétère. Il soutient qu’il est grand temps d’adopter un modèle plus satisfaisant d’approvisionnement. Enfin, le dernier chapitre présente un modèle ou forme de référence qui établit un équilibre entre les attentes des militaires, du monde politique et de l’industrie.

As admitted at the outset, and notwithstanding the provision of the template in the concluding chapter, this volume cannot hope to be conclusive. Discussions amongst the authors, as we arrived at some solutions in the course of our investigations, pointed to many new avenues for further research. Especially promising are the possibilities for war gaming and modeling and simulation at the strategic level, to determine if the national industrial base can really support the Canadian Forces or how best to deliver capabilities through an as-yet unwritten national procurement strategy. Indeed, the “elephant in the room” of this study is the absence of such a national strategy. If there is an unfulfilled logic to the arguments presented here, it is the need to re-establish an organization resembling the Department of Defence Production, which in the 1950s enjoyed the benefits of such a strategy and what seems to have been a better relationship between DND and its contracting department, supported by the full political weight of the central government and the strategic engagement of industry.

Nonobstant l'existence d'un modèle, comme on l'a admis dès le départ, ce cahier ne peut espérer fournir toutes les réponses. Les discussions que les auteurs ont eues au cours de l'élaboration de solutions au fil de nos recherches démontrent qu'il existe de nombreuses pistes d'investigations additionnelles. Nous avons trouvé que les possibilités les plus prometteuses se situaient au niveau des jeux et modèles de guerre ou des simulations à l'échelle stratégique, afin de déterminer si la base industrielle nationale peut véritablement soutenir les Forces canadiennes ou fournir les capacités nécessaires dans le cadre d'une stratégie nationale d'approvisionnement qui reste encore à concevoir. En effet, le noeud gordien de cette étude, c'est le constat de l'absence totale d'une telle stratégie nationale. Et s'il existe une logique intuitive découlant des arguments présentés ici, c'est la nécessité de rétablir l'ancien ministère de la Production de Défense qui existait dans les années 50 quand le Canada avait adopté une telle stratégie. Ou encore, songeons à l'instauration d'une meilleure relation entre le MDN et son secteur des contrats et approvisionnements, avec l'appui plein et entier du gouvernement dans son ensemble et l'engagement stratégique de l'industrie.

But waiting for the perfect solution to the Canadian military acquisition conundrum is not, as Brian MacDonald would observe, a very “satisficing” stance. Time is critical. If the process is ever to be fixed, there is no better time to start than now.

Mais attendre la solution idéale aux tribulations des acquisitions militaires canadiennes, comme le fait remarquer Brian Macdonald, n'est pas une attitude particulièrement satisfaisante. La situation est urgente et si nous voulons créer un processus rentable, c'est le moment idéal pour commencer.

Chapter 1

Recognizing the Problem

Prendre conscience du problème

Paul Manson and Howard Marsh

Abstract: *The acquisition of military equipment is a hot topic, one that has brought Canada's military to a critical stage. Previous governments have for too long deferred replacement of deteriorated equipment, with the result that operational capabilities have suffered. Faced with a backlog of expensive equipment replacement decisions, today's Government must contend with an old procurement dilemma: Which player should the process favour - Canadian industry, the federal bureaucracy, politicians or the military? Designing a new process that satisfies the expectations of the first three of these players without negatively affecting those of the fourth requires strong and innovative leadership.*

Résumé: *L'acquisition d'équipement militaire est une question brûlante qui a atteint des proportions de crise pour les forces armées canadiennes. Les gouvernements précédents ont reporté pendant trop longtemps le remplacement d'équipements dont l'état est devenu déplorable au point de miner les capacités opérationnelles des forces. Faisant face à une accumulation de décisions à prendre en matière de remplacements d'équipements coûteux, le gouvernement doit aujourd'hui traiter du problème classique d'approvisionnement: quel intervenant le processus doit-il favoriser – l'industrie canadienne, la bureaucratie, le monde politique et les forces armées? La conception d'un processus nouveau qui réponde aux attentes des trois premiers sans faire du tort au quatrième exige un leadership à la fois novateur et déterminé.*

The acquisition of equipment and related services for the Canadian Forces has become one of the hottest subjects in town. The reason is simple: the situation, long deteriorating, has now reached the critical stage. Failure to fix the process might result in a breakdown in military operations, at a time when these are especially demanding and vitally important to national security.

The problem and its symptoms are well known. Bringing complex new systems into service is taking much longer than it used to, typically 15 years or more from government go-ahead to operational employment by the military. This is the result, in large part, of an increasingly burdensome bureaucratic process, not just within the Department of National Defence (DND), but also within the federal government at large. The problem within DND is compounded by other factors,

however. Competition is usually a good thing, but in Canada, it is fierce within the defence industry, each component of which sees as its rightful share a substantial portion of the \$2.5 billion allocated yearly to the purchase of new equipment and services.

Then there is the difficult question of political involvement. This utterly necessary component of the procurement process is often motivated by petty regional considerations, not to mention unreasonable fear of public and media reaction, especially in regard to “big-ticket” items like ships and aircraft. When a federal election intervenes, the ‘politics’ of procurement often brings the system to a state of near paralysis.

Fortunately, not all new equipment takes 15 years to enter service. All too often, however, the Canadian Forces do experience lengthy delays in the introduction of necessary replacements, the result of which is an extra burden of high cost and physical risk in keeping the old equipment in service long after the “use before” date has expired. The C-130 Hercules air transport aircraft and the Sea King helicopters, whose replacements will enter service some 30 years after the need to do so was established, are often cited as examples of a seriously flawed procurement system.

What can be done about this state of affairs? Research and analysis undertaken recently provides a clear picture of some of the “root causes” of dysfunction in the military equipment acquisition process.¹

These studies reveal that the gradual evolution of a very cumbersome bureaucratic process is a major source of difficulty, if only in its delaying effect. Much of the complexity lies within DND, but to be fair that department must guide its capital projects through a plethora of interdepartmental processes involving the Treasury Board Secretariat, Public Works and Government Services, the Department of Industry, the Finance Department, other government departments, regional agencies and, ultimately, the Privy Council Office. Bringing numerous key senior government officials together for an interdepartmental review can be a frustratingly slow process. Furthermore, given that a significant number of government departments and agencies have veto power over DND procurement proposals, each of them must be treated with considerable deference.

Within DND, risk-aversion has resulted in “Statement of Requirements” documents consisting of many thousands of pages.² In effect, the department’s

¹ See for example Douglas L. Bland (ed.), *Transforming National Defence Administration* (Kingston: Queen’s University, 2005), prepared with the Conference of Defence Associations Institute.

² Glaring examples are the engineering specifications for the Light Armoured Vehicle family (Bison, Coyote and LAV III) running to 760 pages, and for the Canadian Patrol Frigate that weighed-in at nearly

technical experts all too often produce detailed design specifications for the required new item of equipment when they should rather be telling industry, in simple operational terms, what the new equipment is required to do. Not only is the existing approach time-consuming, it also constrains industry's ability to respond and can open the door to accusations (as have recently been made in the Sea King replacement competition) that the technical specifications have been manipulated in such a way as to favour one equipment solution over another.

Making matters worse is DND's deficit in personnel qualified in preparing statements of requirement and in managing equipment procurement programs. That deficit adversely affects the department's ability to move quickly in developing equipment Statements of Requirement and Concepts of Employment (both of which lead to the production of the Request For Proposal), to the evaluation of industry responses, and to the staffing of projects through the bureaucratic maze leading to the federal cabinet where acquisition decisions are made.

Canadian industry, for its part, is frustrated by what it sees as an insensitivity within DND towards the capacity of Canadian companies to meet the equipment needs of the Canadian Forces. Increasingly, believing they are about to lose a given competition, companies will resort to lobbying politicians or to launching legal challenges, actions that sometimes lead to lengthy delays in procurement decision-making.

To be sure, when hundreds of millions or billions of dollars are involved, military equipment procurement decisions have a political dimension. In recent decades, federal politicians have been acutely aware that the Canadian public, even if favourably disposed to the CF (and this has not always been the case), frankly rates the expenditure of tax dollars on major military equipment as a lower priority than social services that more directly impact their daily lives. The media, for their part, never miss an opportunity to play up this angle for a good story, to the extent that the federal cabinet tends to be gun-shy about such purchases and will hedge, sometimes for years, without making a decision. It is no wonder, in this environment, that a 15-year procurement cycle has become common. This situation has recently become even more problematical with the practice of publicizing the life-cycle costs of major crown projects (that is, lumping in lifetime support and operating costs with the purchase cost). Although this is sensible from an accountability perspective, the general public does not understand the

2000 pages. An encouraging sign of reform is the recently released Statement of Requirement for the Joint Support Ship (JSS SOR), at a concise 4 pages:
http://www.forces.gc.ca/admmat/dgmeprm/pmojss/docs/JSS_SOR_V3_18-May-05.pdf

distinction, and sees only the huge numbers that result. (If the lifetime cost of a typical family car were calculated this way, it would appear to be about \$195,000!)

Can the system be fixed?

It has to be. The consequences of continuing down the current path are serious, real and untenable. Successive political delays over the past three decades have led to a bow wave of unfulfilled equipment requirements so large that catch-up is out of the question. Most of what has to be bought right now is not readily available. Interim solutions exist, but even they take time. Consider the case of the Fixed Wing Search and Rescue (SAR) replacement. Even if a contract were signed today for an in-production aircraft, delivery would still be 3-5 years away. In the meantime, aircraft are being grounded for safety reasons.

General recognition of the urgent requirement to reform the Canadian Forces presents an opportunity to get things back on track. This will succeed only if the systemic problems facing defence procurement are corrected very quickly. Accomplishing this will take political leadership of the highest order. The Prime Minister and his cabinet colleagues must lead this process by ensuring that all measures required to make the defence procurement system work effectively, efficiently and speedily, are taken.

Chapter 2

A National Defence Acquisition Strategy

Pour une stratégie nationale d'acquisition d'équipement de défense

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Abstract: *Defence acquisition is complex, but it can be managed better. The chapter begins by identifying five core objectives that any acquisition strategy must satisfy to ensure a more consistent and timely outcome. These objectives are not unique to Canada, but tend to be universally accepted, although perhaps unevenly managed, in most western Defence Departments. The last objective, facilitating government's ability to use defence procurement as a lever to achieve other worthwhile wider objectives, is often most controversial, but no less necessary. The chapter then presents a number of key attributes that should define a Defence Acquisition Strategy that respects the previously discussed core objectives. While many of the recommendations focus on internal Department of Defence processes, they also touch on issues that cross-departmental boundaries and impact on how industry responds to requirements. If implemented, significant benefits in terms of timeliness and predictability will accrue to all parties involved in defence acquisition.*

Résumé: *L'acquisition en matière de défense est une question éminemment complexe mais rien n'empêche de mieux la gérer. Cinq objectifs de base sont au cœur de toute stratégie d'équipement pour obtenir des résultats plus probants et plus respectueux des échéanciers fixés. Ces objectifs ne sont pas spécifiques au Canada. En fait, ils sont universellement acceptés par la plupart des ministères de la Défense en occident, même s'ils ne sont pas gérés de façon constante. Le dernier objectif des cinq évoqués, qui consiste à permettre au gouvernement de se servir de l'approvisionnement de défense comme un moyen de réaliser des objectifs plus vaste est celui qui soulève le plus de controverse tout en étant aussi nécessaire que les autres. Sont ensuite décrits dix attributs que devrait respecter une stratégie d'équipement de défense pour prendre en compte les objectifs de base. Bien que bon nombre des recommandations portent sur les processus internes dans le ministère de la Défense, elles couvrent également les points de jonction interministérielles et la façon dont l'industrie répond aux exigences et critères imposés. Si ces recommandations étaient mises en œuvre, tous les intervenants dans le domaine de l'approvisionnement en équipement de défense y gagneraient tant au plan des échéances qu'en termes de prévision.*

I once travelled in a country where the locals spoke neither English nor French. At one point, as I was trying to obtain directions, my interlocutor, sensing that I did not understand the language, tried to help me by repeating the instructions *louder*. I am not sure what logic drove the rise in decibels, but obviously it did not work. I have since witnessed many occasions when two parties, having difficulty in understanding each other, resort to louder levels of the same rhetoric. And I also believe that what I witnessed on that occasion is one of the major reasons why the many voices, on all sides of the Defence Procurement Reform issue, are speaking *louder and louder*. Why is that, and what is missing to make the discussion more productive?

Defence acquisition by its nature is a complex, expensive and technology intensive business. Procurements are uncertain, both in terms of schedule and requirements, with a small pool of suppliers dependent on winning the relatively few contracts to survive. The process is financed by a government that understands little of the military requirement, must divert dollars from other pressing needs to support defence procurement, and therefore seeks to achieve many other non-defence objectives simultaneously from the same dollars. It is inherently a very risky process, overseen by a government that is extremely risk-averse. That it delivers anything at all should be quite surprising. Nonetheless, it does, but in a most inefficient and time-consuming manner.

With dollars at a premium and the rapid pace of technological change, a new strategy is needed that fundamentally changes how defence acquisition is carried out. This chapter will attempt to identify the major attributes of such a new approach, but before that can be done, there must be agreement on the objectives desired.

Fundamentally, there are five core objectives that a defence acquisition strategy must satisfy:

- the strategy must ensure that the Armed Forces receive the equipment that meets *their* approved and defined operational requirements;
- it must do so in a timely manner;
- value for money must be, and be seen to be, obtained;
- risk must be managed equitably with industry; and,
- the strategy must facilitate government's ability to use defence procurements as a lever to achieve other worthwhile "wider" objectives (industrial benefits, technology transfer, regional development, and so on).

While the first three of these objectives seem to be well understood and accepted, the last two objectives deserve further discussion.

Insufficient analysis and understanding of the risk inherent in large defence procurements is the leading reason why so many acquisitions take so long and cost so much. Indeed, in a recent report, the United States Defense Acquisition Performance Assessment Committee recommends that the US Department of Defense (DOD) move to a “risk-based” source selection process.³ In other words, the approach to effectively manage risk should not be to attempt to avoid it by moving it entirely on the contractor’s shoulders. That only leads to escalating unrealistic demands and expectations from the defence department, which instead (at least from their perspective) considers the project to be risk free. In consequence, the contractor, being uncomfortable with the risk distribution, mitigates his position through significant price buffers. To avoid these distorting effects, the procurement and contracting regimes must allow for the equitable distribution and management of risk between the contractor and the government throughout the project’s life. Risk (in terms of cost, schedule and performance) is always present. The key is to assign the management of the particular risk to the party who is best positioned to manage it.

The last objective is perhaps the most controversial: recognizing explicitly that a defence acquisition strategy must cater to the legitimate prerogative of the government to use defence procurement as a lever to achieve other objectives. All nations, including the United States, to some extent use defence procurement to help achieve other government objectives. In its recently released White Paper on a Defence Industrial Strategy, the United Kingdom government makes explicit mention of “wider factors” that will impact on its defence procurement.⁴ Some of the factors mentioned in the White Paper include industrial participation (or industrial benefits as it is called in Canada), industrial regional activity, generation of high value economic activity (jobs), and technology transfer. Because including such wider factors as part of defence procurement can in fact have a financial cost, it is often argued that other government budgets – not the defence budget – should pay for them. However, as all funding comes from the same government, it is really a zero sum game. There is only so much money in the government coffer, and because the dollars are limited and the demands much greater, it is good government policy to satisfy as many demands as possible from the same dollar. DND, as one of many departments of government, must contribute to wider government policies. However, in

³ US Department of Defense, *Defense Acquisition Performance Assessment* (January 2006); at: www.acq.osd.mil/dapaproject

⁴ United Kingdom, *Defence Industrial Strategy, Defence White Paper* (December 2005); find by using the “search” function on the Mod UK home page: <http://www.mod.uk/DefenceInternet/Home/Index.htm>

achieving wider objectives, care must be taken that they must never be allowed to interfere with the accomplishment of the first two over-riding objectives.

So what should be the attributes of a Defence Acquisition Strategy that would respect the five core objectives?

Acquisition is more than just procurement. The acquisition process begins at the requirements definition stage and goes right through to award of contract, product acceptance and final payment. To be successful, a defence acquisition strategy must ensure that the entire end-to-end process flows smoothly, and delivers on the objectives previously stated.

At the start then, no acquisition should proceed without a clear, understood and accepted statement of the capability deficiency that is to be rectified, and how that capability will fit into the overall Canadian Forces requirements. Equally important, and what is not done now, it should be clearly stated what the newly acquired capability is *not* intended to rectify, in order to prevent requirement creep and the lead to a need for costly Canadian unique solutions. However, in order to be able to produce such statements of capability deficiency in the future, DND must immediately start to develop and train requirement determination staffs with the necessary skills.

The strategy should encourage detailed communication with industry at the earliest stages of a new acquisition, with discussion focusing on how to satisfy the required capability as opposed to discussing specific equipments. Indeed, the solution to satisfy the capability deficiency may not be an equipment procurement at all.

Once the capability deficiency is well defined and the approach to rectifying it also defined, integrated government acquisition teams should be assembled to determine a procurement approach. These can be stand alone, or in the case of very large acquisitions they can be matrixed. They must include various DND players, as well as members from other government departments who have a legitimate role to play in ensuring wider objectives are considered. However, for such teams to work effectively there must be a clear recognition of the role of each player in the team, and each player must be equipped with the detailed skills and knowledge necessary to allow him to fulfill his specific role. The lack of experience, skills and knowledge across all departments is a major deficiency that exists today; it will need significant attention, time and interdepartmental co-operation to correct.

In defining the procurement strategy to be used, the approach should not simply be to identify the risks associated with the strategy and then determine how to mitigate those risks. Rather, the risks should first be identified and then a procurement strategy that minimizes risk adopted as a risk mitigator in and of itself. Residual risk should then be assessed as to how it will be managed, not viewed as something that can be avoided somehow in the future. An off-the-shelf procurement strategy, for example, can clearly reduce much (but not all) risk.

Where it is determined that solving the capability deficiency is best done through acquiring a service as opposed to equipments, the requirement should be expressed to the maximum extent possible in terms of performance specifications. This entails a contracting regime quite different from one where exact technical specifications are the selection criteria. Evaluation methodologies and contract compliance measures must be developed and employed that support a performance specification approach. Such a regime is, at best, ill-defined today.

When considering the selection of a supplier, corporate past performance should be a considered factor in the contract award. This has always been a difficult concept to implement, as it is argued that evaluation of past performance can be too subjective or that it effectively limits the ability of new entrants to compete. Subjectivity can be significantly controlled by having government and industry together develop a past performance evaluation matrix that is then available for use in future competitions. As for new entrants into a competitive field, they should rightly be viewed, until proven otherwise, as more risky. Again, a collaboratively developed template that would be the basis of new entrants' potential performance evaluation should be possible.

Inevitably, the aim of all acquisitions is to ensure that industry satisfies the contractual obligations. Hence an acquisition strategy must realistically recognize industry as a partner in the process – not as an adversary to be defeated – with legitimate expectations, whether financial or otherwise. While the government should get value for money, industry should get value for participating. Procurement strategies must be realistic and made clear as early as possible so neither side wastes time and resources. There is nothing wrong with a sole source approach *per se*. Competition is not always the best strategy. Each has its place. What is important is to be logical and consistent in deciding, and making the decision early in the process.

A defence acquisition strategy should be linked to a defence industrial base strategy, such as the previously mentioned UK White Paper on Defence Industrial Strategy. The acquisition strategy would then be clear on what

capabilities and technologies are to be sourced from within Canada, how acquisition will support research and development investment, and what skills need to be maintained indigenously. Unfortunately, there is no defence industrial base strategy in Canada; hence the approach to the above issues is inconsistent, to the detriment of industry.

The acquisition strategy should be based on positively providing incentives to industry to perform (or outperform) rather than negatively penalizing for non-performance. Liquidated damages may hurt the non-performer, but they do not put “rubber on the ramp”. That is not to say that penalties should never be used, but a more explicit use of positive incentives may be more productive, recognizing that the ultimate objective is to deliver the good or service on time, at cost, and as per specification. Like it or not, once the contract is signed, industry and government are in it together, often without either having full knowledge of what to expect.

Finally, the defence acquisition strategy must prevent any project from entering the departmental strategic investment plan if it does not have a realistic cash flow profile. Identification of a capability deficiency in the investment plan must remain the starting point for expending resources on rectifying that capability deficiency. Resource expenditure must proceed with the expectation of a timely, successful outcome. Projects should be “gated” under specific timelines, subject to cancellation unless extenuating circumstances dictate otherwise. Acquisitions that take 15 years to first delivery consume significant resources that might be better spent on getting the “good enough” in service in a fraction of the time.

The prescriptions described above for a revitalized Defence Acquisition Strategy are not entirely new. Some are actually part of the existing process. Indeed, as far back as April 1992, in a document entitled *Canadian Defence Policy 1992*, the government gave clear indication on how it would simplify acquisition, essentially by focusing on off-the-shelf equipment and reducing the number of types of equipment in service. However, these guidelines were never applied in an effective, consistent manner, and they seem still to be missing today. For the most part, large acquisitions currently are handled in an *ad hoc* manner; compromises are made as necessary to advance the acquisition with little consideration of the downstream risk implications or the impact on industry. Lurching from crisis to often-foreseeable crisis, acquisitions muddle along, saved only by huge contingency fund reserves, or they collapse amidst acrimonious finger pointing.

Defence acquisition indeed is complex, and the environment under which it exists makes it even more complex. But it can be better managed.

