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Charles Davies

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Institut de la Conférence des associations
de la défense

151 rue Slater, bureau 412A
Ottawa (Ontario)
K1P 5H3

613 236 9903
www.cdainstitute.ca
cda@cda-cdai.ca

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Defence Transformation and Renewal: Teeth, Tails and Other Myths

Charles Davies

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Colonel (retired) Charles Davies is a former CF Logistics officer who has held a number of military and civilian senior appointments in the Canadian Army and DND's Materiel Group. His executive-level responsibilities have included, among others, land force structure, strategic and business planning for the Materiel Group, and defence materiel acquisition and support policy. He retired in 2013 following a 42-year military and Public Service career.

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Executive Summary

For the Canadian Forces, the desire to ‘trim fat’ is ever-present, but has taken on a new level of urgency as fiscal constraints mean that the Department of National Defence and the Canadian Armed Forces must attempt to do more with less. However, much of the current discussion regarding cost saving measures is distorted by oversimplifications of what are in fact complex issues. Any examination of National Defence must recognize its position as the most complex organization in government.

The following paper seeks to encourage a better-informed discussion, and to dispel some of the myths that too often obscure debate. It describes the dual nature of National Defence as both a 21st Century military organization and an integral component of a wider Government of Canada business environment, and the hard realities that flow from that. It cautions that it is necessary to maintain reasonable expectations about the outcomes that can be achieved in current renewal initiatives, and how quickly. It also notes the importance of differentiating between what transformation is achievable internally within National Defence and what would require significant business renewal at the level of the Government of Canada. In closing, it cautions that trivializing these basic realities by reducing debate to “tooth-to-tail” or other unhelpful generalizations obstructs rational and useful discussion of a significant issue of national importance.



Defence Transformation and Renewal: Teeth, Tails and Other Myths

By Charles Davies

Introduction

There is much talk today about “tooth to tail ratios”, bloated bureaucracies and large overhead structures at National Defence, but not much insight from commentators about where major savings opportunities can actually be found. This is perhaps not surprising because the complexity of the defence institution makes it easier to critique than to propose concrete solutions. Even Lieutenant-General Andrew Leslie’s 2011 Report on Transformation¹ acknowledged that, after ten months of research and analysis by his team of relatively knowledgeable insiders, the second and third order impacts of his 43 recommendations required additional study before firm decisions should be made on whether they could be implemented².

There is another, more serious, problem with the debate. Too much of it is based on invalid assumptions about what constitutes “teeth” or “tail” in a 21st Century military. In fact, the very concept of a “tooth to tail ratio” is fundamentally flawed as a basis for rational discussion of defence resource allocations and institutional efficiency. It is much too simplistic, and the concept of “tail” has little or no practical meaning in the context of the vast array of activities that have to be balanced in creating, sustaining and employing modern military forces.

The institution we call National Defence, comprising the Canadian Forces (CF) and the Department of National Defence (DND), is by far the most complex in government. Some of that complexity is driven by the fundamental nature of military forces – the technologies they employ and how they need to be structured and operate in today’s circumstances; some of it is driven by the basic requirements Parliament and government central agencies have set for the activities of all federal departments and agencies; and, to be fair, some of it is internally generated by DND, although there is probably less of this than critics may assume.

The defence business is structured around the execution of the following main processes:

- Provision of strategic defence policy and military advice to government;
- Force development – that is, the conceptualization and building of the future force;
- Force generation and regeneration of the current force; and
- Force employment, or the conduct of assigned missions.

Of these processes, force generation and regeneration represents the largest and most complex business area, and is the foundation upon which success in force employment will always rest.



Assessing Resource Allocations

In order to properly look at where and why defence resources are currently allocated, and rationally consider where opportunities for improving efficiencies may be found, the institution has to be studied from two very different perspectives. The first is the military capabilities it is required to generate, employ, sustain and ensure are ready for operations. The second is the business environment it operates within as an institution of government: the decision and approval processes it has to follow, the obligation to demonstrate sound stewardship of assigned resources, and the need to respond to the expectations of Parliament, the government and the people of Canada for transparency and accountability in its actions. Both perspectives have equal standing because National Defence is both of these things: an important national military institution that provides the ultimate guarantee of Canada's security and independence; and one of the most important institutions of government. The relationship between the two is symbiotic – one can't be successful without the other.

Perspective 1 – Military

To look first at the military perspective, the defence capabilities that typically must be employed if armed forces are to be effective in combat, or any other assigned missions, are considered to comprise the following five “domains”³, or functional areas:

Command. This includes both the human aspects and the physical means by which military forces translate government direction into military intent; plan operations; ensure necessary unity of thought, purpose and action within the force; and manage the conduct of required activities. Command is the nexus for the four other functional areas discussed below.

Sense. This is the collection, collation, analysis, synthesis, fusion, dissemination and display of data and information to provide commanders at all levels with the best possible comprehensive knowledge and understanding of the current and likely future situation they are operating in. To be effective, it needs to occur at the tactical, operational and strategic levels within an integrated continuum.

Act. This is the most visible aspect of defence capability, and the one that gets the most attention from lay observers. It provides the means to physically and morally shape events, and compel opposing forces to submit. This is typically done through an integration and orchestration of action by multiple types of lethal and/or non-lethal capabilities within a unified plan spanning the strategic, operational and tactical levels.

Shield. This comprises a range of measures designed to protect the force from the actions of its opponents, or from natural and other hazards, with the objective of preserving freedom of action and operational effectiveness.

Sustain. This includes a range of functions necessary to assemble, deploy, employ, support, and redeploy a force. As an operational function, the term has a very wide context and may be broadly grouped into three subordinate functional areas: materiel, personnel, and engineering.



Throughout much of the 20th Century, the balance among these five domains heavily favoured the Act, Shield and Sustain areas. Mass was key to success in battle and significant resources were typically allocated to three major groups of activities in particular:

- Battlefield reconnaissance, manoeuvring and patrolling to find the enemy force, determine its size and disposition, and then decisively engage it with main forces;
- Ensuring adequate protection of friendly forces against the actions of their opponents; and
- Delivering the vast quantities of supplies needed to do both successfully.

It was by no means an efficient way to apply military force, although it was often effective⁴.

Modern sensor, intelligence gathering and information technologies offer commanders considerable potential to more efficiently and comprehensively understand the situation on the ground and selectively decide where, when and how best to more precisely apply force or other measures to achieve the intended effects. Military transformation initiatives around the world, including in Canada, are in part aimed at leveraging this potential.

In simple terms, they seek to shift the balance among the five “domains”, selectively investing new resources in Sense and Command and slimming down the size of the others while enhancing their precision, reach and effectiveness. The evolution away from the mid-20th Century concepts of mass aerial bombing of area targets towards the use of relatively limited numbers of precision guided munitions, supported by effective target selection, identification and designation capabilities, is but one simple illustration of the trend.

An observer can easily misperceive the implementation of this kind of rebalancing as expanding “headquarters overhead” at the expense of combat capability, but it is not. In fact, the changes enhance essential “brain” functions that permit more efficient, often more limited, and more precisely targeted use of combat power and other means in operations to achieve the intended outcomes.

This kind of transformative change is particularly necessary in today’s environment where Western militaries face primarily smaller, non-conventional opponents who operate within populations and in difficult terrain. Precision and calculated restraint in the application of force are essential to success, as is a high level of training and preparation of the troops assigned to the mission. However, the changes are also fully applicable to any future conventional confrontation as they permit much more efficient use of available resources.

Force Generation. In addition to the more visible military capabilities discussed above, 21st Century defence forces need to maintain adequate Force Generation systems by which highly skilled professional military forces are assembled, equipped, trained, certified and deployed to meet mission requirements. This includes substantial standing recruiting, education, training, acquisition, materiel management, infrastructure management, resource management and other systems supporting both immediate mission requirements and long-term sustainment of the nation’s ability to meet its evolving



defence needs and obligations. These are not “tail” functions. They are more in the manner of a deep system of roots that anchor, build, support and nourish the military force. Without them it would soon become ineffective, and eventually wither away.

It should be noted that, somewhat uniquely to Canada, major elements of several of these key force generation functions are managed and sometimes delivered by organizations that happen to be administratively grouped inside National Defence Headquarters (NDHQ). One example of this is the centralized materiel acquisition and support services provided by DND’s Materiel Group⁵. Although it nominally resides in NDHQ, its activities are not part of DND’s “head office” function. Rather, they are a core element of the CF force generation and sustainment systems and in other countries similar work is often done by a separate entity. This needs to be understood when looking to trim “fat” from the NDHQ bureaucracy.

Overall, then, the military perspective is complex in its own right, and decisions on the allocation of resources to all its constituent parts require careful analysis to ensure that the system as a whole remains in appropriate balance and capable of meeting the current and future defence needs of the nation. This is not to say that efficiency improvements can’t be made in some or all of these activities – indeed they can – however none of them can be considered non-essential “overhead” and therefore ready, risk-free targets for easy savings. Resource reductions require careful thought and analysis, and need to be accompanied either by reduced expectations for delivered outputs (i.e. military capabilities) or successful business process or other efficiency improvements. In this regard it must be recalled that, historically, governments have not willingly tempered their expectations for defence results regardless of the budget they allocate to DND, and the current government is no different in having clearly signalled that it is not prepared to accept reduced capabilities.

Perspective 2 – Institution of Government

National Defence operates within a wider Government of Canada business framework that places many obligations upon it. These include, among others, compliance with a wide range of government policy directives and assuring sound stewardship of the considerable public resources the institution is assigned. In addition, it is required to report extensively on how well it meets these obligations. None of these functions is discretionary, and all require that adequate resources be assigned to do the associated work.

Donald J. Savoie, who holds the Canada Research Chair in public administration and governance at the Université de Moncton, has comprehensively described the complex business environment within the federal bureaucracy in his 2013 book *Whatever Happened to the Music Teacher?*⁶ He notes, among other things, that the business operations of all departments are governed by a myriad of policy rules and legal provisions that aren’t necessarily optimized for efficiency of process. Rather, they are designed to minimize financial risk and ensure that the many competing government priorities and policy objectives are balanced in all decisions.

The complex characteristics of the business environment National Defence operates within are well



illustrated by the suite of rules governing procurement, in particular policies such as the Treasury Board's *Procurement Review Policy* and *Contracting Policy*⁷. These place as much emphasis on national objectives such as industrial and regional benefits, Aboriginal business development, small business development, contracting process integrity, and others, as on meeting the operational requirement⁸. Consequently, as the sponsoring department for a given acquisition, DND has to commit significant effort to determining how it proposes to meet these multiple objectives, and then explaining and shepherding its requirements and desired solutions through complex review and approval processes in which multiple ministers have *de facto* veto authority. Then, having achieved an acceptable consensus, further interdepartmental work is required to obtain contract approval by either the Minister of Public Works and Government Services or the Treasury Board, or both.

Comparable government-level business rules apply to almost everything DND and the CF do. Simple decisions on pay and allowances require Treasury Board approval. Decisions on any but the smallest equipment and infrastructure investments and divestments require Treasury Board approval, and larger ones need Cabinet endorsement. Communications with the public and Parliamentarians are controlled by the Privy Council Office. National Defence is but one cog, albeit a very large one, in a greater Government of Canada machine whose governing mechanisms are controlled by a number of central agencies.

Consequently, the very process of obtaining required external approvals for basic business decisions represents a major internal industry within National Defence. The associated work to document business cases and other submissions, explain and justify its often unique requirements to multiple staffs and levels of authority in other departments, and negotiate acceptable outcomes is not superfluous overhead activity but fundamental to the operation of the defence institution.

The nature of the Government of Canada business environment also drives an inescapable requirement for a certain level of executive leadership structure so that DND and the CF can effectively engage and apply the levers of the federal bureaucracy. A 2007 National Security Studies Program paper showed that, at the time, National Defence had a far lower proportion of civilian and military executives⁹ than the government average: 0.54% of DND's civilian strength and 0.63% of CF strength as opposed to a government-wide average of 2.4%¹⁰. These numbers will not be very different today.

As a very large organization, and one with far more of an operational than a policy mandate, National Defence can perhaps be expected to have a lower proportion of executives than most other departments, but these statistics do underline two basic realities: one, that the nature and complexity of the government business environment demands that all departments maintain executive teams that are adequate to ensure that their programs can be properly planned, sponsored, approved, resourced, implemented and managed; and two, that the DND and CF executive cadres are comparatively very small in government for the scope, scale and complexity of the institution's mandate.

It is also important to note that this government business environment, including its complex decision processes and extensive controls, extends into many aspects of the day-to-day support and even conduct of military operations both inside and outside Canada. This creates its own operational friction,



additional workloads for commanders and staffs, and the need for ongoing executive-level engagement when missions are conducted because there are few fast-track decision processes in the government. Urgent approvals generally have to be obtained through the expedient of “heroic effort” by all concerned, and decisions may require compromises based on non-mission considerations, which can affect the effective, efficient conduct of operations. These business constraints on commanders, whether one views them as inherently “good” or “bad”, are an unavoidable consequence of the complex realities that inevitably affect all activities of the Government of Canada and its agents, especially those involving significant resources.

Finally, National Defence and all other line departments have substantial obligations to report on their activities and performance to Parliament, numerous oversight bodies, and central agencies. Professor Savoie argues that many of these reporting requirements are excessively onerous for the value they provide, and cites an example in a medium-sized department where as many as 25% of its employees had as their primary job the preparation of reports for oversight bodies. In another case, a smaller agency at one point reportedly had 38% of its staff working on accountability reports¹¹. Given DND’s large size, these kinds of activities take up proportionally fewer of its resources, but the demands are still significant¹². Whether or not one agrees with Professor Savoie’s views on the value of this reporting regime, it is a legal and policy reality, and the associated work is a substantial and core obligation of all government departments.

It is undoubtedly possible for an individual department such as DND to find better ways to do the internal work needed to operate effectively within the Government of Canada’s complex business environment, and to meet its reporting obligations, but it can’t avoid these imperatives. Fundamental efficiency improvements in these areas can only be made at the government level. Absent significant changes there, in order to get its business done DND must continue to allocate sufficient resources to the prescribed processes to achieve the outcomes it is required to deliver.

Where, Then, is the Fat?

The short answer is that it is both nowhere and everywhere. After multiple cost reduction, downsizing and re-engineering initiatives in the decades¹³ since the 1968 unification of the CF¹³, there is no single area with large amounts of “low-hanging fruit”. It has largely all been long since harvested and not given much opportunity to grow anew – even during the last decade’s modest growth in response to the war in Afghanistan, which is now being rolled back. This absence of obvious individual major targets is evident in the 2011 Report on Transformation, which makes 43 very diverse recommendations, including one proposing the reform of 13 different internal management and administrative processes¹⁴.

Efficiency opportunities do exist in National Defence, as they do in any large, complex organization, but greater opportunities exist at the level of the Government of Canada and harvesting these would benefit not only DND but all government operations. To be fair, the government has made some attempts to transform parts of its business¹⁵, however many more opportunities exist. Obvious areas for examination include (among others): procurement¹⁶; processes for reporting to government and



Parliament¹⁷; and obtaining program, expenditure and other approvals.

As for the opportunities that can be exploited inside National Defence, they are scattered across the institution and no one of them will yield big savings. Therefore, available savings will have to be dug out of a very wide range of activities, organizations and processes, and often with considerable effort. The work has to be triaged and prioritized based on the expected return for the effort involved. Some initiatives may generate relatively easy, if modest, efficiency improvements; others with more potential will require greater effort and involve greater risks that have to be managed.

All of this is very much worth doing, however the effort requires a systematic approach to prioritizing the work and ensuring that the various initiatives are well coordinated and appropriately integrated. Otherwise, the outcome may be a patchwork of disconnected and sometimes conflicting solutions delivered independently by different parts of the institution. To avoid this, centralized control and oversight is essential and to their credit the current Deputy Minister and Chief of the Defence Staff have established mechanisms to provide this¹⁸. However, the risk remains that the current Defence Renewal initiative will culminate much the same as most previous efficiency and cost reduction efforts – required savings are extracted and victory is declared without actually delivering and institutionalizing the promised systemic improvements that were supposed to minimize or avoid the negative impacts of the reductions.

It cannot be denied that the many cost-reduction, renewal and transformation programs implemented within DND over the past several decades have sometimes resulted in beneficial change. However, they have not been the most efficient or effective way to move the institution forward. Given the size and complexity of National Defence, by far the best long-term approach to ensuring optimum efficiency and effectiveness in the allocation of resources is to strengthen the foundations underpinning the organization's management. Lacking suitable defence-specific terminology, the foundational elements are best described in generic government and business terms. They include: a sound, comprehensive and well understood business architecture (an embryonic form of which may be said to exist in DND's current Program Alignment Architecture); effective business intelligence capabilities supporting a robust performance management system; an integrated enterprise-wide business environment built on modern information technologies; and a sound, purpose-designed, governance, management and leadership framework. Some of these elements are being progressively put in place and maturing. Others need more work.

It is a political imperative that National Defence pursue its current suite of defence renewal initiatives to conclusion in the near term, but this should not be done at the expense of continuing construction of these key foundational elements. They offer the best chance for moving the institution away from its tradition of periodic "binge" re-engineering and renewal efforts in response to external pressures and towards a state where the leadership has the necessary tools, insights and incentives to continually adjust and optimize the execution of its business operations.



Conclusion

National Defence is by far the most complex organization in government, and its complexity is primarily driven by the inherent nature of 21st Century defence institutions as well as the Government of Canada business environment within which it operates. Both of these realities require that the CF and DND assign significant resources to a broad array of functions and activities, and orchestrate them effectively, in order to successfully execute CF missions and deliver the defence program. Some of the business processes involved are entirely within the power of DND to improve and optimize but many more are controlled by others, notably central agencies of the Government of Canada. Consequently, it must be recognized that there are limits to what can be accomplished by the CF and DND on their own.

The complex business environment within National Defence, and the fact that multiple reviews and transformations over the past decades have long ago extracted the easy savings, means that delivering meaningful efficiency improvements today is hard and requires sustained effort. That effort is worthwhile and is clearly being pursued by DND with both short-term and longer-term horizons in view. However, both the institution and its critics need to maintain reasonable expectations about the outcomes that can be achieved, and how quickly. Also, a clear differentiation between what is achievable internally within National Defence and what would require significant business renewal at the level of the Government of Canada needs to be maintained.

In this context, observers and critics on all sides need to be careful about oversimplifying discussions about renewing or transforming defence with catchy but unhelpful “tooth-to-tail” or other generalizations. Some level of simplified description can be useful in illustrating and explaining ideas, but the underlying complexities inherent to defence institutions in the 21st Century, and the very real exigencies of the business environment within which Canada’s must operate, have to frame any debate on how to improve efficiencies in National Defence. Ignoring or trivializing these realities simply obstructs rational and useful discussion of a significant issue of national importance.



NOTES

¹ Lieutenant-General Andrew Leslie. *Report on Transformation 2011*. Ottawa: Department of National Defence, 2011. (Internal DND publication – copies available from DND upon request.)

² *Ibid.* Foreword, Page v.

³ These domain descriptions are slightly modified versions of those defined in Department of National Defence (2010). *Capability Based Planning Handbook Version 6.2*. (Unnumbered Chief of Program publication).

⁴ For a good analysis of the inefficiencies that plagued early 20th Century warfare, from a logistics perspective especially, see Martin van Creveld. *Supplying War: Logistics from Wallenstein to Patton*. (Cambridge: Cambridge University Press, 1977); Chapters 4 through 7. Things were not much better in the latter part of the century during the First Gulf War. See Lieutenant-General William G. Pagonis with Jeffery L. Cruikshank. *Moving Mountains – Lessons in Leadership and Logistics from the Gulf War*. (Harvard: Harvard Business School Press, 1992).

⁵ This example was chosen because it is the largest at some 4,000 people; there are other equally valid, if smaller, cases that can be cited. Disclosure: the author served as the strategic planning director for the Materiel Group for four years and senior materiel policy director for three.

⁶ Donald J. Savoie. *Whatever Happened to the Music Teacher?* (Montréal & Kingston: McGill-Queen's University Press, 2013).

⁷ Treasury Board of Canada. *Procurement Review Policy*. (Accessible at: <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12074§ion=text>); and *Contracting Policy*. (Accessible at: <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494§ion=text>)

⁸ Douglas Bland discussed the cost of diverting defence resources and focus to these other national objectives in a 2005 Claxton Paper. See Douglas Bland, ed. *Transforming National Defence Administration* (Claxton Papers; 6). ISBN 1-55339—117-9. 2005; Chapter 1. His critique does not change the fact that it has remained the policy of successive governments to accept this cost, and this appears unlikely to change. On 5 February 2014 the current government announced new measures aimed at leveraging defence procurement to create jobs and contribute to economic growth.

⁹ Military executives are defined as the ranks of Colonel/Captain (Navy) and above.

¹⁰ André Fillion. *The Integration of Defence Civilians within the Defence Team: How Far Can we Go?* Canadian Forces College, June 2007. Page 17.

¹¹ Savoie. Page 144.

¹² Realistically, the work can also only be done in the National Capital Region.

¹³ Lieutenant-General Leslie's report identifies at least 15 studies, reviews and commissions that have looked at National Defence since the end of WWII. Leslie, Page 8.

¹⁴ The report notes, correctly, that many more process areas beyond those identified merit scrutiny, and focuses its recommendation on the creation of a standing capability to audit National Defence business processes.

¹⁵ The establishment of Shared Services Canada with end-to end responsibility for acquiring, maintaining and operating basic communications systems for all departments is a significant attempt at government-level transformation (how successful and to what ultimate net benefit is too early to say). Also, several years ago Treasury Board led a horizontal strategic review of government civilian human resources management, leading to a rationalization of responsibilities between various central authorities as well as business improvements that have helped simplify HR administration in departments. No similar integrated reviews have been done since.



¹⁶ For only one comprehensive critique of government procurement see Public Works and Government Services Canada (2005). *Report of the Parliamentary Secretary's Task Force: Government-Wide Review of Procurement*. (Government of Canada catalogue No. P4-10/2005 0-662-68900-3).

¹⁷ See Savoie, chapter 10.

¹⁸ DND provides some limited information on its management of the quite comprehensive suite of ongoing defence renewal initiatives on its website at <http://www.forces.gc.ca/en/about/defence-renewal.page?>

