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**The strategic implications of organizational re-structuring: An examination of  
Canadian National Defence readiness in a post-industrial context**

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*The perceived end of the Cold War and subsequent Department of National Defence funding reductions under the peace dividend has led to an organizational framework which can largely be explained using Michael Porter's generic strategy model. This paper will demonstrate the fallacy of Porter's model with respect to current Defence management due to the complexities of an emerging post-industrial environment. Management issues will be examined which have greater potential for establishing an effective National Defence security framework in the new millennium.*

**Introduction**

"...a form of adaptation is thus achieved by narrowing and distorting the environment until one's conduct appears adequate to it, rather than by altering one's knowledge till one can cope with the larger, real environment."

K.J.W. Craik, *The Nature of Explanation*<sup>i</sup>

An important aspect of organizational strategies lies with the realization that the full implications of strategy may often not be fully comprehended until implementation. Furthermore, it may often difficult to understand the full transitional implications until new emergent challenges are faced. Such is the situation that appears to befall the post Cold War peace dividend. While the recent acts of terrorism in the United States will inevitably aid in defining this transitional impact, it is my contention the generic organizational strategies adopted following the Cold War had already begun failing to accommodate the complex internal and external changes affecting National Defence in a post-industrial context.

This failure can be evidenced through the various manifestations underway both within the Canadian Forces and in the surrounding environment, as they impact upon the organization. It is my contention that these manifestations have led to a loss of internal integration, media ridicule and continuing public criticism. This shift is now bringing the organization toward the brink of crisis, one which future departmental policy will need to address through re-examination of the fundamental assumptions driving the current organization.

## **Background**

To the Department of National Defence, the 1980s bore witness to extensive geo-political changes, culminating in the collapse of the Berlin wall in 1989, and the perceived end of the Cold War. In line with many NATO partners, the federal government reduced its standing forces, and shifted defence spending toward reduction of the outstanding deficit. Aligned to this, a national federal rationalization strategy was adopted, aimed to reduce the federal deficit, which had surpassed \$40 billion annually. This resulted a reduction in annual defence spending from 2% of GDP in 1989 to 1.2% in current terms, a 30% spending power reduction in real terms<sup>ii</sup>. The rationale explaining defence reductions have been widely reported, and have encompassed, not least, a shift in national priorities, and an acknowledgement of the fundamental changing nature of international security issues.

Since the onset of this catalyst, a number of significant events have occurred. These events have resulted in a sense of waning stability within National Defence, and impacted on defence readiness. This has been exacerbated through ongoing fiscal pressures, perceived erosion of fiduciary leadership, structural change, institutional reforms, and the loss of institutional homogeneity.

According to recent press reports, the institution appears to lie in crisis as we enter the 21<sup>st</sup> century, despite the implementation of numerous reform initiatives. It should be noted, however, that similar problems are being reflected throughout North America, shared amongst a wide range of organizations today. One determinant reason for this difficulty lies with the notion that private and public sector organizations have been impacted by dramatic changes occurring in a post-industrial context. These changes can be attributable to social transformation, proliferating technologies, complex and increasingly competitive international economics, and a maturing population presently capable of complex output across the national spectrum. Taken into context, it is from amongst these concerns that one can realize key investment issues for future defence policy.

## **Michael Porter's Generic Strategies**

Arguably one of the most influential strategic management intellectuals during the latter part of the twentieth century, Michael Porter (1985, 1990) embraced the use of different organizational arrangements, control procedures and incentive systems for establishing competitive advantage amongst firms, institutions and agencies. Porter developed a popular theory surrounding the application of generic strategies, applicable within a broad range of organizational settings, including public and private sector operations. Provided a choice between cost leadership, differentiation and focus based strategies, Porter felt organizations must adopt one or more of these strategies in order to remain competitive and survive.

According to David (1995), Porter contends that larger organizations, with greater access to resources, will typically seek to 'compete' on the basis of cost leadership and

through the differentiation of its products/services<sup>iii</sup>. This allows firms to implement cost reductions while refocusing on the provision of core services.

Porter's generic strategy design and David's subsequent analysis reflects the generic transitional strategy adopted by the Canadian Forces in response to imposed budget reductions. Since the initial imposition of budget restraints, National Defence has endeavored to reduce internal costs, protect its perceived 'core' combat capabilities, and divest 'non-core' administrative and infrastructure-based operations. Innovation and change have been approached from a rational perspective, seeking to gain further efficiencies to existing practices. These strategic initiatives, which I suggest have constituted the basic policy framework in response to budget reductions of the 1990s, have left the overall organization increasingly vulnerable due to the parallel rise of post-industrial complexities, which has subsequently impacted on defence readiness.

### **Internal Complexities and the Transitional Organization**

Since 1989, defence staffing has been heavily impacted as a result of the new peace dividend' and imposed federal reductions. Approximately 30% of Regular Force personnel (87,000 to 60,000) and 38% of civilian staff (31,086 to 19,300) positions were reduced through early departure plans, routine attrition, and programmed screening gates, and the personnel base continues to erode<sup>iv</sup>. Trades and services designated non-core faced pressure to downsize, consolidate, and de-layer, as the organization focused on re-aligning defence priorities. Core combat services and equipment revitalization has been proportionately increased, in an effort to improve defence capabilities within this smaller force structure.

The 1990s were focused on downsizing, re-engineering, and the introduction of defence renewal initiatives such as DeleGAAT, Defence 2000, and the Red Tape Action team. The department undertook to automate support systems, establish commercial partnerships, and pursue strategic defence programming. Significant organizational changes included the consolidation, reduction and/or elimination of environmental headquarters, Bases, Colleges, Wings, Brigades and units across the defence infrastructure. Surplus equipment and infrastructure were mothballed, disposed or sold, including redundant equipment resources, Base infrastructure, and numerous defence properties.

Along with the personnel reductions of the mid 1990s, and in an effort to improve combat capabilities within financial constraints, the Canadian Forces has sought to improve its overall "tooth to tail" ratio. An example of this transition can be seen in Land Forces Western Area, which has reduced military support staff by 35%, civilian support staff by 50%, while simultaneously increasing operational forces by 25%<sup>v</sup>. While some support capabilities have since been outsourced, these revised ratios have placed a significant strain on the current support system, compounded by restricted funding, which has restricted effective responses to peak period requirements. This transformation has also contributed to significantly increased workloads, particularly in the consolidated support sector.

Re-engineering and innovative measures have been pursued in an effort to cope with fiscal reductions. Defence leadership, faced with mounting pressures to cut costs, focused the 1990s on developing a framework for re-engineering and guiding the Canadian Forces within imposed financial objectives. Extensive efforts were undertaken to manage the subsequent transitional impact, update the organizational culture, and work within newly imposed manpower and resource ceilings.

Numerous restructuring changes have been implemented within National Defence, across Canada and internationally, including the closure of numerous Regular Force units and the departure of Canada's standing Air Force and Brigade presence from Germany. Following these closures, Regular Force elements have been redistributed within regional installations under consolidated administrative support arrangements, while "non-core" infrastructure support forces were organizationally compressed.

Despite these Base closures, Reserve Forces have continued to remain locally dispersed, which has necessitated a requirement for ongoing administrative, logistics, and infrastructure support. The Army, to present an example, has sought to meet this requirement through the adoption of strategically situated Area Support Units, under a regional satellite concept, which provided this support through remote and decentralized means. These smaller satellite organizations have, in turn, been supported through centralized Area Support Groups/Canadian Forces Bases. This process has been implemented through a major focus in the use of information technology, e-commerce, and decentralized military-commercial strategic alliances to fulfill routine support responsibilities.

Similar pursuits have been adopted, in an effort to establish greater standing personnel savings of non-core support staff. This can be evidenced through numerous Alternate service delivery projects (i.e. Supply Chain, Site Service Support, LOGCAP, CANCAP), Military Occupational Structure reviews, National Logistics Unit review, and most recently, with the formation of the Joint Support Group. The underlying aim of these initiatives has been to continue cost reductions associated with 'non-core' standing force structures, thus enabling the organization to preserve and re-rebuild 'core' defence capabilities within rationalized budgets.

Within the support services sector, reductions are likely to continue until the various infrastructure support elements have reached "Most Efficient Organization" status, a point at which the organization would be unable to sustain reductions without increasing strategic inefficiencies. Armed with this understanding, the Department would be positioned to compare internal costs against those of external service providers, thus enabling the adoption of external services in whole or in part, based on an assessment of the associated security risks and comparative costs.

Evidence of this transition is apparent with the department's Supply Chain Project initiative. In December 1997, the Department of National Defence announced that current Base support services, and supply and distribution systems would be reviewed in an effort to find greater efficiencies as part of a national Alternative Service Delivery

strategy. This initiative has resulted in a recent announcement of a contract bid for undertaking infrastructure support services, under trial conditions. Military support staff, under this initiative, will eventually be embedded within the contracted organization. This initiative provides an excellent example of a trending pattern toward partnerships being developed between the defence and commercial sector, where it is felt core defence operations will not be adversely impacted. Non-departmental partnerships will continue as an emerging trend, with efforts being pursued to establish such partnerships where subsequent defence savings can be affected.

Similar contracts have already been developed, in numerous external service organizations. Numerous examples can be found, including defence partnerships with Public Works Government Services Canada, Canadian Forces Housing Association, Canada Lands Company, Ryder, and Frontac ATCO Canada, and numerous small-scale contractors, health service offices, and other external service agencies. While the net long-range cost-effectiveness of undertaking these initiatives has yet to be determined, servicing costs will be perceived to be less expensive than in-house options, and facilitated by additional flexibilities accrued to contractual arrangements. This outsourcing trend has been reflected amongst other developed nations, such as seen with the Defence Evaluation and Research Agency Public-Private Partnership project recently announced by the Ministry of Defence in Britain<sup>vi</sup>.

The speed of this transition toward complex external support solutions has been dramatic, both within and external to the Department, and is leading to new complexities within and external to the department. The past decade has seen a proliferation of commercial hardware and software, the adoption and subsequent elimination of charter air travel, commercialized traffic services, courier and mail services, contracted communications, point of sale food service outlets, environmental protection initiatives, contracted engineering, and the automation of most forms of administration and logistics support. Increasingly, larger contracts are being negotiated, such as the \$92 million contract recently awarded to Med-Emerg International Ltd to supply health care professionals to the Canadian Forces Health Services.<sup>vii</sup>

These trends can be expected to continue, including greater use of commercial delivery, remote systems, e-commerce, networked financial transactions, contract labour, comparative performance measurements, and common certification standards. It continues to be felt that these arrangements will reduce the premium costs associated with integral labour practices. This, it should be noted, is aligned to similar changes taking place in commercial industry, and throughout the public sector.

All in all, rationalization through “non-core” contracting appear likely to continue as a means of seeking organizational cost effectiveness. Recent Army doctrine<sup>viii</sup> has forecasted traditional support functions increasingly being performed by, or integrated with, civilian organizations and agencies. Moreover, based upon recent contractor trials in Central European operations, future non-military service providers may increasingly be used for overseas areas of military operations for the delivery of support services, where operationally feasible.<sup>ix</sup>

The concept of integrating civilian support organizations may be considered a highly attractive substitute to integral non-core support staffing. Although private companies may be unwilling to contract foreign services for support to general warfare, it should be apparent that the majority of Canadian Forces domestic and training support operations would not place contractors or civilian employees in harm’s way. However, careful preliminary consideration must be given to determining the general security environment prior to any contractual support arrangement.

While civilian contractors present a potentially viable alternative to the integral use of support services for infrastructure support, peacetime training and low threat operations, this has increased the risk associated with potential changes in operational parameters. The time needed to generate forces, and a reduced flexibility in operations, must be seen as a significant trade-off to these initiatives. Little time will likely be available to re-instate military support capabilities within a post-industrial environment, as evidenced with the recent terrorist attack on the United States. A potential compromise to this risk rests with the requirement to customized force combinations through the integrated Regular staffing, Primary or Supplementary Reserves, and civilian contractual labour. This suggests a future challenge rests with coordinating the various labour options available, dependant upon the particular support needs at hand. It suggests the need for coordinating these integrated responsibilities should be integrated within a conceptual umbrella organization, such as the Joint Operations Group.

Where international military exigencies have prevailed, and sovereignty has not been at issue, Canada has sought greater interoperability through combined Allied Force and coalition partnerships. Canada has not been alone in the desire to reduce defence spending, which has increased the interest in partnership arrangements, particularly in overseas operations under the domain of United Nation, North Atlantic Treaty Organization, or America, Britain, Canada, and Australia (ABCA) partnerships.

Greater attention has been placed on international peacekeeping missions, regional operations and aid to civil power operations. Small to medium scale conflicts have replaced the Cold War readiness posture, and new threats have focused on regional conflicts, terrorism, crime, environmental and asymmetrical exigencies, marked by low to medium resolution operations. These shifts have shifted the Canadian Forces from a Cold War collective force structure toward the smaller ad-hoc peacekeeping and peacemaking formations using small, hybrid Force structures. While the essential structure has remained under a collective defence structure, ad-hoc structures have increasingly been adopted to accommodate the diversity of operations.

Organizational transformation has brought about great efforts to increase combat capabilities, seek major innovative reforms, and redirect the organization. This has been reflected in improved defence technologies, greater sophistication in defence communications, evolving moral, legal, intellectual and political relationships; an improved focus on media relations, public access and scrutiny, transparency, education, bilingualism, human rights, and family support responsibilities. Aligned with these reforms, National Defence has aimed at greater economy, renewal of its capital equipment, and an improved technological base.

Technological innovation is increasingly being investigated for future defence operations, such as seen with the Revolution in Military Affairs (RMA) concept. This complex technological concept is also under consideration by the United States, Britain, France, Germany and Australia<sup>x</sup>. It is anticipated that this revolution will dramatically change the command and control structure of the Canadian Forces, and capitalize on the manner in which militaries apply force in future. This also has major transformational implications in terms of education, skills acquisition, tactics, material acquisition and support, and in the future pace of operations. The operational complexity brought about by the integration of RMA within a Regular and Reserve Force structure, combined with integration of civilian contractors and allied partnerships can be expected to increase the complexity of the organizational information exchange process.

Aligned to this initiative, numerous other modernized systems have been adopted by Environmental Commands, increasing the time needed to train and integrate modern man-machine relationships. Significant technological trends should continue to develop in information technology sectors, including expansion of electronic commerce<sup>xi</sup>, development of electronic banking and remote business services through decentralized workstations, telecommunications and personal computers.

These complex technological changes have been accompanied by the rise of a complex internal organizational environment. This has been evidenced this past decade through the rising adoption of business case analyses, multi-skill practices, increase in married service couples, concern for interrelationships, such as ethics and harassment, re-definition of the internal legal and moral framework, revitalization of professional development, increased trade standardization and certification, and increased decision making through consensus, committee and delegation of authority. Over the past decade, National Defence has sought to adopt these new procedures in response to external environmental pressures, increasing the complexity of the internal environment.

These internal complexities have been further aggravated by a move away from autocratic regulatory authority toward a climate of devolution, empowerment, change, and increased self-responsibility. Numerous examples of such initiatives have been displayed and encouraged by Chief Management Renewal Services as part of Defence 2000<sup>xii</sup>. These latter fiscal reduction initiatives have had, in general, a mixed reaction with respect to traditional organizational values. While their adoption has inspired a

climate of change, it has also added to the greater internal organizational complexities, and has led the organization toward greater individual autonomy and divergence.

Transitional effects of changing institutional methodologies, combined with compressed organizational structures and workloads, increased responsibilities for self-service administration, and a higher operational tempo evident through a rise in operational missions and peacekeeping, have potentially placed stresses upon the internal organization. Growing complexity, combined with reduced staff levels, and increasing decentralization through technology and decentralized practices is, moreover, resulting in increasing organizational divergence. This may lead toward a reduction in loyalty to a collective organization, particularly within those areas most affected by rationalization, transformation, and these emerging complex initiatives.

In an effort to understand the concerns facing the organization, the federal government and National Defence recently sought to address employee concerns through the Standing Committee on National Defence and Veterans Affairs (SCONDVA) investigation. The aim of this investigation was to better understand specific concerns of CF members, and the attitudes of Canadian Forces' personnel. After tabling these findings, the department and federal government have sought to alleviate many of these issues, particularly pertaining to pay and compensation concerns, housing, and community and family issues. In all, a total of 55 reforms have been completed out more than 89 SCONDVA recommendations<sup>xiii</sup>. However, this study tended to focus on discretionary changes, and not concerns faced by rising environmental complexities, nor the issues relating to increasing divergence.

### **External Complexities and the Transitional Organization**

Since the end of the Cold War, there is a growing perception that the threat of large-scale international warfare has been effectively reduced. The bi-polar world has been seen to be replaced with one providing greater complexity and less rigidity. High technology weapons continue to proliferate internationally, and the environment has in general been marked by smaller scale intra-state and ethnic conflicts, terrorism, and crime<sup>xiv</sup>.

With the collapse of the Soviet Union, there has been an increasing interest by Western countries to expand democracy, intervening in global affairs through the UN, NATO, and other international agencies such as the World Trade Organization. This has been accompanied by a general mistrust of international relationships, and particularly the perceived exploitation of developing world labour markets, evidenced through increasing public protests during World Trade Conferences. This has also resulted in a cultural identity crisis amongst non-democratic nation-states, such as currently apparent in Arab Muslim countries. This has predicated the need for low to medium regional intervention requirements and international policing efforts, suggesting a shift toward increased regional peacemaking and peacekeeping. This trend has also decreased the need for standing forces operating in high intensity battlefield conditions, but increased

the potential requirement for intelligence technologies, anti-terrorist units, strategic and operational mobility in smaller tactical air, naval and field operations.

International free trade agreements have precipitated a shift toward a global economy marked by greater foreign direct investment. Regional and global trade initiatives have been steering a course away from traditional national markets. Greater emphasis is being placed on the highly competitive developing world and merging international markets. International business activity has rapidly expanded since the Second World War, including Canada's own foreign direct investment, which has risen from 5.3% (\$3.7 billion) of GDP in 1967 to 23% (\$156.6 billion) in 1998<sup>xv</sup>.

There has been a shift toward border-less commerce and integrated finance. Global commercial growth has also encouraged market specialization in support of national distinctive competencies. Competitive changes and emerging opportunities in the international commercial sector are resulting in an increased desire to resolve regional conflicts. This has been accompanied by a reduction in former protectionist policies favouring trade tariffs and policies countering expansionist threats.

The emergent transition towards international democratic expansion has not always proceeded smoothly, due to its perceived impact on other international values and cultures. While positive movement toward the democratization of society has been successful in many formerly non-democratic countries, particularly Central and Eastern Europe, recent terrorist actions in New York provides fresh evidence that the erosion and integration of international cultural identities continues to remain a major hurdle.

Up to now, years of peace have caused Canadian society to disregard the potential destruction of modern warfare.<sup>xvi</sup> Until the recent action in New York, Canadians were confident that their relative proximity to the U.S., propensity for dialogue resolution for national and international problems, and the physical remoteness of Canada from international conflict would continue to ensure their ongoing safety. This has led to a lethargic attitude toward defence requirements and capabilities within Canada, and a focus only on external international threats. This lethargy has also enabled a shift in federal spending favouring of reduction of the national debt, and realigning budgets toward public concerns of education and health care.

With the recent terrorist attacks on New York and Washington on September 11<sup>th</sup>, Canadians have had their eyes opened to the emergence of a new complex global reality. The "new world order" declared by George Bush Sr. following the collapse of the Berlin Wall and success of the Gulf War has now faced its first major roadblock. This new threat of terrorism, considered by Canadians in speculative terms, has emerged as a viable reality, threatening the peace and stability of the international world order.

Worse, this threat has been imported to North America, and has subsequently left significant public turmoil in its wake, despite intensive sector efforts to mitigate its impact. This single act may very well alter the manner of thinking for many Canadians who previously considered themselves far removed from international threats. Additional terrorist acts of such a large magnitude may have a significant psychological impact on

the Canadian public. A new sense of vulnerability has emerged, and current strategic policies will need to be aligned to face this new threat.

Prior to the terrorist action in New York, democratic principles have been widely exercised in Canadian society, reflected by social equality and the democratic rights of the individual. The federal government has pursued increasing gender and cultural integration through the Canadian Charter of Rights and Freedoms, along with decreasing distinction in age and class distinctions, attributable in large part to the rise of the emerging knowledge worker, and the changing demographics of Canadian society. Policies respecting marriage, divorce and welfare have been changing the structure of Canadian society, with greater flexibility.

Economic society within Canada is evolving also, in large part, due to the rapid advances in technologies, flatter organizational structures, emergence of the modern commercial trade system, the reduction of previous bureaucratic structures in government and the public sector, and the growing emergence of small businesses and strategic commercial alliances. Many organizations within this economic environment are being affected by the recent terrorist actions, and this has served to increase the issues facing domestic industry.

Demographically, Canadian society is also poised for major transition. The older 'baby-boom' generation will soon face retirement and the new 'echo' generation is now just entering the workforce<sup>xvii</sup>. This transition will pose major challenges, as current employees possessing a high depth of historical knowledge and sophisticated technical knowledge will soon be replaced. Not only will future employers need to resolve future competency issues associated with the integration of these new employees, they will also be seeking to entice employees in possession of the 'means of production', in terms of new, highly technical capabilities, from within a highly competitive marketplace capable of offering compensation based on relative competencies.

Since the terrorist actions, however, the federal Finance Minister has continued to pursue tight fiscal policies. While the recent events may amend this policy to a degree, long-range budget forecasts will likely continue to be derived within a strategic national context, due to the continuing rise of the federal deficit, which has witnessed an overall rise from \$391B (1990-91) to \$550B (2000-2001), despite recent surplus savings.<sup>xviii</sup> Defence spending has yet to be changed in response to recent terrorism bombings, although it remains in question how this issue will be addressed. It should be noted that additional terrorist actions against North America may well impact negatively on the future economy.

The reform policies currently impacting upon National Defence also lie in line with similar federal initiatives. The federal public sector has, in general, sought a parallel strategy defined by downsizing, reengineering, privatization, and restructuring.<sup>xix</sup> This has been tied to a renewed focus on clarifying the role of government, including a realignment of values and results. Most recently, federal efforts are seeking to build a renewed investment in human and intellectual capital, building knowledge and service

partnerships, and transforming the public service into a learning culture, focusing on production, management and dissemination of knowledge, embracing change, and the identification of global trends and local needs.<sup>xx</sup>

### **Implications of Porter's Model to DND – Current Impact**

Despite efforts to transition the Canadian Forces under strategic parameters based on Porter's model, the organization has appeared in the eyes of the Canadian public to be relatively unresponsive to real change. Substantial concerns have been leveled at the fundamental institution, evidenced in various means of correspondence, including serious criticisms published in *The Minister's Reform Program: Canada's Military at a Crossroads*<sup>xxi</sup>, and evidenced in the recently published Conference of Defence Associations Institute's paper, *Caught in the Middle: An Assessment of The Operational Readiness of the Canadian Forces*<sup>xxii</sup>.

The Minister's Reform Committee report attributes a major hurdle at defence reform to an "absence of an overall strategic agenda to ensure the cohesive implementation of a very broad-ranging set of changes...(and one which) requires an overarching philosophical shift in the way business is done."<sup>xxiii</sup> It further specifies the need for profound cultural change, one that should transition the organization toward becoming a 'learning organization'. The report further indicates, "the defence team has applied tactical solutions to what it considers to be tactical problems (at reform)...(and) that the reform program is a strategic challenge that requires strategic solutions."

The Conference of Defence Associations Institute (2001), accepting the value of the current organizational construct, has called upon the government to increase defence spending \$1 billion annually over the next two years, in order to stabilize the existing defence situation, combined with a similar financial commitment thereafter. Additional defence recommendations included raising personnel levels to 60000 immediately, followed by 75,000 thereafter, and increasing the capital equipment allocation to 23%, in addition to undertaking the House of Commons Standing Committee recommendations as contained in their June 2001 report<sup>xxiv</sup>. It should be noted that these recommendations were also developed prior to recent terrorist attacks on North America.

I would argue that the defence team has been indeed been pursuing a strategic path, however, one established in the early 1990s based upon the strategic management paradigms present following the Cold War. These former strategic paradigms, focusing on cost reductions and differentiation, have ignored the emerging post-industrial environment. I would further contest that the current path is increasingly unsuited to the issues facing the current post-industrial defence organization, and that the former strategy is unsuited to resolving the fundamental issues of the day. Moreover, I would argue that recommendations offered by the Conference of Defence Associations, while valid in their stated context, will neither accommodate the strategic requirements of the federal government, nor resolve the critical issues facing National Defence in a modern post-industrial society.

Combined factors, involving a focus on core defence services, non-core defence reductions, increasing complexity of internal and external environments, implementation of a myriad of defence reforms, and proliferation of technological innovations all have broader organizational implications. While growing ‘competitively’ structured within a post Cold War strategy, the emergent organization has been unable to simultaneously accommodate the scope of complex changes taking place, while continuing to fulfill current defence mandates.

National Defence has sought an organizational strategy based on cost effectiveness and differentiation in large part due to environmental factors that prevailed following the Cold War. This strategy, illustrated by Porter’s generic strategy model, reflected the environmental conditions in existence following the Cold War, and which served to meet the needs of drastic fiscal reductions imposed by the federal government. This strategy, once adopted, was for the most part successful in meeting its stated aims. However, while the original environmental conditions that generated this strategy remain in place, these former strategies are now failing the current institution. I would argue that in large part, they have been unable to address the current issues facing the defence organization in a post-industrial context.

### **Implications of Defence Strategy in a Post-Industrial Context**

A number of considerations have arisen from the previous discussion.

1. Continuing complex environmental factors are acting both within and external to the organization, necessitating a requirement for ongoing change.
2. Strategic response to these factors has brought about a delineation of the internal organization in terms of ‘core’ and ‘non-core’ activities. This includes organizational contributions from within the Regular Forces, Reserves, and civilian sector alliances.
3. Non-core activities are being increasingly outsourced and rationalized, while remaining ‘core’ activities are becoming increasingly complex and sophisticated due to rising technologies and growing environmental complexities.
4. National Defence, through restructuring, has become increasingly complex and technological, necessitating the need for increasingly sophisticated employees. This increasing sophistication is giving rise to a defence ‘knowledge worker’.
5. The defence knowledge worker will own the ‘means of production’, while the organization will own ‘tools of production’. Combining these two will have dramatic implications in the development of future organizational policies. National Defence will increasingly seek to ‘lease’ this intellectual capital.

6. Current divergent conditions are spawning higher levels of internal frustration and conflict, due to the increasing requirement for complex knowledge and task performance, combined with decreasing organizational collectivity.
7. The dynamic changes occurring in society, combined with these internal manifestations, will likely increase internal complexity, while decreasing the ability of the organization to retain its 'knowledge workers' without appropriate policy intervention.

A number of management issues are now considered based on this assessment, along with questions and issues that arise within a post-modern security framework.

### **Learning through Strategic Alliances**

It appears apparent from this discussion that internal branches of National Defence engaged in contributing toward combat capabilities have been aligned to the strategic aims of the organization, while increasingly, 'non-core' operations have been considered insignificant within a strategic context, other than as a means of effecting further cost savings. At best, employees falling under this latter category can anticipate integration with external service providers. At worst, these 'non-core' organizations will be subjected to further rationalization, in a quest for additional savings. Under this conceptual framework, the more effective the current strategy, the more divergent becomes the organization. As organizations tend to be bound together by common bonds and interdependencies, the greater the divergence, the greater the likelihood of reduced institutional cohesion and morale.

There is a heightened risk that, aligned with this increasing divergence and complexity, individual vice sub-organizational goals and personal goals will assume greater significance, with resolution of technical tasks constituting the principal focus for CF elements. This may lead to a reduction in organizational association, along with a subsequent impact upon organizational retention. Results will become increasingly defined by resolution of emergent complexities, and not with the overarching strategy of the parent organization. Specialist roles, performed within an increasingly divergent structure, may gradually result in a loss of institutional value, along with a subsequent loss of cohesiveness and morale attributable to the overall institution.

The new task environment, offering firm-specific advantages, must be constituted within a cohesive organizational strategy. Under a strategic perspective of forged alliances, the trend toward rationalization and outsourcing under 'non-core' auspices should be avoided. Advantages can best be realized by aligning 'non-core' industrial partnerships to public sector 'core' activities. National Defence should ensure the integration of these non-core commercial activities into the domain of an integrated support organization, aligned to its overall mission. In this manner, 'non-core' outsourced cost savings may continue to be realized, while 'core' needs could continue to be fulfilled. Moreover, heterogeneity and complexity will not serve to erode the overall effectiveness of the institution. Instead, the mutual integration of public and private

sector support systems, both integral and external, will provide a strategic benefit to the organization's defence capabilities.

Combining core and outsourced operations, if strategically implemented, can enable National Defence to achieve greater effectiveness, not only through incremental cost savings, but also by increased organizational 'learning' through the integration of distinct core competencies through these alliances. In this respect, National Defence should not incorporate industry alliances solely based upon cost-effectiveness measures alone, but must consider the intrinsic technical, organizational, and intellectual strengths that may be captured through outsourcing and integration into the defence network. Taken from this organizational 'learning' perspective, the value-added contribution of these alliances will enhance the strategic growth of the future organization.

As an example of this, Nordberg and Verbeke (1999) have observed that buyer-supplier linkages can be a source of complimentary assets for a firm. Their case study research with the European Laboratory for Particle Physics (CERN) outlines the importance of considering transaction costs and core competencies contained within these linkages for enhancing firm-specific capabilities. As noted, "If this process is linked to competency-based strategies of the firm, it can significantly contribute to creating a sustainable competitive advantage".<sup>xxv</sup> DND should draw from this developing its own firm-specific advantages based on increased savings through the specified integration of core competencies, combined with private-sector market integration.

Aligned to a discussion of strategic alliances, following the terrorist actions in New York, new questions have emerging regarding emerging alliances combined with current operations. How secure does National Defence perceive its current military-civil strategic alliances to be following the terrorist attacks on the U.S.? What policy considerations should be incorporated to instill public confidence in an increasingly diversified defence institution, in light of these terrorist actions? What security implications are raised by embedding military forces into outsourced private sector organizations versus their integration within homogenous defence organizations? Has the new North American threat introduced a home soil concern for infrastructure support operations, previously thought to reside in a non-threat environment? Does the potential exist to expose vital defence weaknesses? What level of knowledge and value will outsourcing provide, and what will we realize value-added results or a negative impact of sharing knowledge between private-defence sectors?

### **Building Robustness to Counter Emerging Complexities**

Under the current defence strategy, workloads have been compressed and consolidated, attributable in part to increasing technological sophistication, older workforce possessing broad expertise, rising complexities in the social and cultural environment, and a desire to rationalize the organization. This has left very little robustness and flexibility in National Defence structures, evidenced by the impact of unforeseen reductions stemming from improved external economies and by the difficulty in coping with unanticipated exigencies. This has had a significant bearing on defence

readiness, including national, bi-lateral, and international commitment capabilities. This has been evidenced most powerfully during the current terrorism crisis, where all three security commitments have arisen simultaneously.

How prepared is the current structure for meeting this new security requirement? Can the Canadian Forces successfully generate and sustain a Main Contingency Force, given the general absence of effective collective training? Can the Canadian Forces pull out of existing commitments to peacekeeping operations in order to meet this force generation requirement? Could this become a possibility under the current international terrorism scenario?

The increasingly rationalistic tendencies of the current organizational strategy run counter to this need for greater robustness in an increasingly complex post-industrial organization. This situation should be reviewed, with staff levels established and cognizant of the emerging innovative technologies and environmental complexities required in a post-industrial context. For example, will it become necessary to ‘leap-frog’ the training of future employees, to ensure a continuous ability to meet rapidly changing technologies in emerging high-technology occupations? Are we able to identify and uncover our vital weaknesses in terms of critical occupations that will sustain future operations? Can we replicate responsibilities in multiple security zones?

These questions are now arising, and have become increasingly important since the recent terrorism actions have challenged current security assumptions. Additional questions also become apparent. What level of organizational robustness is required to meet the challenge of multiple threat environments? How will the Canadian Forces cope with the loss of unfilled positions in an increasingly complex internal environment, given the complex range of skills now required, and the length of time required to replace these skills? What level of overlap is needed to meet a continuous requirement, given the increasing competitiveness in the market for technical skills, and the emergence of multiple security zones? How will the organization cope with a potential loss of personnel needed to fulfill tasks in an increasingly technical environment?

The above discussion points to the need for much greater personnel robustness in National Defence than is currently provided. Single position policies, and ‘ship to shore’ ratios alone are insufficient for coping with the rising complexities of the emerging defence labour environment. The current commitment to operational deployment as the primary factor in determining aggregate personnel establishments fails to capture the true complexity of the post-industrial organization. The Canadian Forces must be increasingly aware of the internal and external complexities that are shaping the modern environment, and adding additional implications to its current operational imperatives.

### **Preparing for the Defence Knowledge Worker**

It is increasingly apparent that the rise of the defence ‘knowledge worker’ will become an vital capital asset for the Canadian Forces. Increased levels of training and education will become paramount to the success of operations, and for coping with both

current and future organizational requirements. The emergence of the knowledge worker is starting to transform the defence landscape, and will serve to bring about a new shift in thinking to the traditional organization.

With the emergence of newer technologies, former issues relating to personnel, financial, equipment and other resource capital will increasingly become seconded to the importance of the knowledge that drives these various technologies. New employees, integrated increasingly with modern technologies, will challenge current assumptions respecting leadership and hierarchical structures. Individual soldiers, through their complex technical expertise, will become increasingly valued for their individual capabilities and skills, and will increasingly gain control of the ‘means of production’, while the Forces will seek to lease these skills, and will continue to own the ‘tools of production’. This factor will bring a significant challenge to defence leadership in terms of the strategic employment of intellectual capital, and the accompanying defence readiness issues seen to arise from this capital focus.

According to Drucker (1992:103), no society has had as many centers of power as that which we are now in.<sup>xxvi</sup> His statements convey the emerging power of the individual intellect and its implications for modern society. This is beginning to drive numerous questions for National Defence. To what degree will future soldiers be collectively organized? How loyal will they remain to the organization given their rising value in the Canadian market? Will contractual retention grow increasingly important for their retention? Will they be able to cope with the application of these technologies under battlefield stress conditions? How effective will the current defence structure be in exploiting these new qualities? Should the modern defence structure be comprised of an enterprise of equals, colleagues and associates, as suggested by Drucker (1992: 102)? Are we currently witnessing the erosion of traditional structures of the Cold War? Are we losing employees to competing organizations? Is the current defence environment meeting the needs of these voluntary soldiers? Such questions need to be addressed if we are to fully understand the post-industrial impact of the ‘knowledge worker’ on the Canadian Forces.

### **Consciousness and Reality**

On a much more abstract note, it should be seen that the Canadian Forces has approached defence restructuring based on a deterministic, functional framework. When examining defence restructuring from a subjective ideological paradigm perspective, a critical assumption is made under this paradigm that social reality shapes human consciousness, and in turn, this consciousness shapes social reality.

Why does this become important for National Defence? Mainly that the defence institution consists of a myriad of individual interpretations, values and ideas, distributed amongst various social actors, both internal and external to the organization. Social actors, typified by the public, media, and internal defence actors, construct thoughts and decisions through interpretation of their perceived internal and external environment, and

moreover, convey these perceptions amongst other actors. As these perceptions shape social reality, this subsequently serves to define the institution.

This becomes significant in fulfilling institutional mandates. The significance lies in the realization that this past decade has witnessed a growing societal perception of institutional weakness within National Defence, under very limited tests of its true defence capabilities. Why is this significant? Mostly in that strategic departmental restructuring that has been underway throughout the past decade, yet viewed from a social consciousness perspective, strategic restructuring has been unsuccessful, evidenced in current public reporting, perceived absence of public confidence, and recent attrition concerns.

From this perspective, the organization has appeared inadequate within a post-restructuring context. Without satisfactory explanation of the background efforts and contingency requirements of the organization, it will remain difficult to build public support toward contingency-based public sector services. A substantial reason for this concern lies with the idea that as organizations have increasingly downsized this past decade, there has been an increasing interest in paring organizations toward their visible service delivery components. For National Defence, restructuring has brought greater visibility of visible services such as peacekeeping, but has increasingly hidden its main contingency roles. One may ask, why does the organization appear to engage only ten percent of its workforce in the visible delivery of deployed services, yet suffer from severe organizational stresses, as suggested within the public media?

Two issues become significant here. First, what constitutes the appropriate visible services that would re-instill the confidence of the Canadian public? Aligned to this, what satisfactorily explains the root cause of emerging organizational stresses impacting on the department, and are these stresses systemic? Are they originating from defence operations, emerging internal or external environmental complexities, or other unseen factors? One must ask whether the organization has been correctly aligned to its emerging environment, and are these stresses real or perceptual? Is the organization now better prepared, through restructuring, for meeting its new post-industrial challenges?

The second issue concerns the explicit issue of public perception. With the emergence of sophisticated international communications, industrial and public sector reductions, and emerging technologies, Canadians are increasingly witnessing the growth of new forms of techno-based organizations. Small to mid-size organizations are increasingly capable, through the use of advanced technologies and communications, of marketing their services nationally and internationally through the use of technology and an assortment of vertical and horizontal contractual relationships. New virtual companies are gaining wide acceptance within Canadian society in the distribution of products and services. This becomes important in comprehending the potential perceptual difficulties Canadians may be experiencing in identifying with larger contingency-based organizations such as National Defence. It may be increasingly difficult for the public to comprehend the needs of a public sector organization that requires substantial integral resources to ensure adequate organizational robustness capable of meeting invisible

contingency requirements deemed of greater significance than its visible service deliverables.

While National Defence has sought to redefine itself structurally, culturally, and operationally during this past decade, this redefinition has not appeared to meet the needs of public consciousness, and subsequently, the organization now appears, in the eyes of the Canadian public, incapable of meeting its broad defence mandates. Much of this may be attributable to the growing importance of perception as a tool in shaping organizational reality for the post-industrial organization.

The absence of policies necessary to bring about such perceptions may well be negatively impacting upon the current organization, both internally and externally, and may be leading toward a self-fulfilling decline in capability and financial support. How should National Defence address this issue? Will it be necessary to construct a perceptual campaign to effectively deal with contingency-based issues, not merely the conveyance of visible public services? How will National Defence seek to convey its organizational image in an environment increasingly reliant upon public perception for building public policy? If perceptions cannot be successfully managed, one must ask what this will cost in terms of public confidence, attrition, and financial support? Such social consciousness constitutes a new reality for National Defence management, and will need to be effectively managed in the new post-industrial environment.

## **Conclusion**

Society and the military continue to evolve over time. Along with this evolution, complexities are rapidly arising within the post-industrial society that are challenging former paradigms brought forth by strategies developed for the post Cold War era. In light of these new complexities, these former paradigms must be examined, altered and if necessary, disposed, in order to meet the emerging internal and external environments facing the future Canadian Forces. Change, and its impact upon National Defence, is not about what the organization has been, but about what it could become. This has not been effectively appreciated during recent restructuring efforts. It is therefore important to examine the emerging organization without prejudice and without carrying forth the inherent issues of the former paradigm. The structure and culture of the continuously renewed organization must be fully aligned to the present and the future, in order to effectively face emergent threats as they present themselves.

Defence restructuring, which has focused on cost savings, rationalization, innovation and differentiation, has led the organization on an increasingly divergent path. It has also given rise to a new defence knowledge worker, who increasingly owns the current 'means of production', while the organization continues to own the 'tools of production'. It is within this framework that the potential of the organization has been examined, including the need for reducing this divergence, and the need to examine a perception approach to defence restructuring, which is currently shaping defence realities in a post-industrial context.

How will National Defence address these new issues with greater effectiveness? A potential methodological solution lies in the arena of future academic research activity. This can be embraced under the current educational policy, and would be relatively easy to embrace. Kogut (2000) argues for such an approach, through the establishment of directed research activity, and research strategies that pursue particular paths, from which systematic, analytical study for the advancement of strategic management issues can be found. He argues for well defined research programs which he argues, should engage students in the use of statistical, comparative, historical, and ethnographic research for the systematic resolution of problems facing the organization.<sup>xxvii</sup>

National Defence needs to examine such an approach for its own requirements, utilizing articulated, academically based strategies for the systematic development of the future institution. Perhaps this could be approached through the new educational policy currently underway. This may not only bring about greater effectiveness in addressing emerging issues facing the current institution, it will also align the current educational policy toward the need for greater intellectual investment in National Defence.

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