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ALTERNATIVE SERVICE DELIVERY SOURCING – THE EMBEDDING OF MILITARY PERSONNEL

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CSC 29

Master of Defence Studies

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MASTER OF DEFENCE STUDIES

ALTERNATIVE SERVICE DELIVERY SOURCING –
THE EMBEDDING OF MILITARY PERSONNEL

By Major D.L. Miller

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ABSTRACT

This paper considers the impact of the lessening bi-polar tensions and the concomitant reduced defence spending on the logistics branch of the Canadian Forces. In particular, it examines the concept of 'embedding', i.e. deploying military personnel into civilian organizations that are contracted to provide services that were previously core military/logistics functions. It compares the two alternative methods of embedding, single embedding and mass embedding, to the status quo, identifies the strengths and weaknesses of each, and provides argument for concluding that mass embedding is preferred.

The Canadian Forces currently grapples with funding alternative methods of service delivery and the issue of embedding, in particular in the logistics branch. This paper provides a number of elements that should be considered in this ongoing debate before the ink is allowed to dry on any service delivery contract that may impact manpower resources.

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ALTERNATIVE SERVICE DELIVERY SOURCING – THE EMBEDDING OF MILITARY PERSONNEL

SECTION 1 – INTRODUCTION

The end of the Cold War and the fall of the Berlin Wall in 1989 were significant events that have had major influences and impacts on western militaries in the areas of policy, doctrine, structure, research and development paths, and technology. There has been a reorientation of militaries away from all-out nuclear and conventional wars to discretionary operations which has brought with it an assumption within defence circles (governments, think-tanks, and defence industries) that this shift to discretionary operations would bring a decrease in total defence spending including capital, research and development, and personnel expenditures.

There was an end to a certain threat, but not an end to the need for armed forces, which proved far busier in the new security environment. Further, it was speculated that the lessening of bi-polar tensions and the end of the Cold War would result in a downsizing of military manpower. After all, the end of a major fifty-year war that saw escalation on every front but no fighting should result in some demobilization. Logic would dictate a realignment and reduction of resources committed to defence.¹ In modern war, science and warfare have always been very closely linked. As a result, for every new offensive weapon developed, a defensive system has always been conceived. The arrow, in effect begot the shield; Martin van Creveld writes, “the arrow, a primary ballistic weapon of sort, was considered an unfair weapon because it could effectively kill from a distance and from behind cover.”² When the shield neutralized the defensive capability of the arrow, there was a requirement for a new more powerful weapon. In turn, this offensive capability was countered by another defensive technology; thus escalation began. With the end of the Cold War this escalation was effectively stymied and it was believed that militaries would no longer require massive amounts of capital funding. It was expected that resources could be redirected as a result of the relative peace.

¹ National Military Support Capability (NMSC) Project Preamble, www.forces.gc.ca/eng/archive/2001/aug01/18military_b_e.htm

² Martin van Creveld, *Technology and War* (New York: The Free Press, 1989), p 71.

After decades of domestic red ink financing in many western countries, a substantial proportion of which was spent on defence, the end of the Cold War was the impetus for public pressure on governments to redirect funding to other public non-security initiatives and programmes. The Government of Canada was not immune to this developing situation, notwithstanding the defence budget cuts of the 1970s. The CF budget is often the largest discretionary component of governmental spending (approximately \$15.4 Billion Fiscal Year 1988-89³) and therefore the most accessible source for budget cuts. The Government wasted little time in beginning to search for significant savings from the Canadian Forces (CF). Many public policy areas needed funding, including infrastructure, health, and education. The government plan for reducing military spending was enacted and highlighted in the 1994 Canadian Defence White Paper:

Canada and most other NATO allies have seen their military budgets decline, acknowledging the fundamental changes on the world scene and the need to reduce overall government expenditures.⁴

The CF reduced programs accordingly and expenditures remained within the new funding envelope. The Government White Paper demanded reductions. There were many initiatives and innovations developed out of necessity. Other initiatives were driven by the long held concerns that for years there had been excess in both capital and operation and maintenance expenditures. However, shaving the ice cube was not enough; significant cuts and savings would have to be made in all areas. However the end of the Cold War did not bring peace. In fact the situation was reversed. The existence of two superpowers had served as the counterbalance in all corners of the world. With the end of the Cold War, it was instability, not peace that had broken out. The CF now found itself deployed on many missions around the globe. The CF had become busier with the increased deployments, while becoming a smaller force and more conservatively funded. Something had to be done to stretch the defence dollar, as Canada had taken a peace dividend on the backs of its busy troops. The perception was that the forces support structure was too big relative to the operational elements and needed to be downsized; this tooth-to-tail ratio was one of the factors which caused consideration into an alternative means of delivering support services as a means to enhance defence capability while remaining within fiscal limitations.

One of the solutions was Alternate Service Delivery (ASD). This new process was sold as a way the CF could improve the value of its funding in delivering support services. ASD had been done in other countries such as the United States, the United Kingdom, and Australia, with some degree of reported success. As a result, two principle ASD options were considered – outsourcing or partnering with the commercial/private sector. This sector appeared to provide

³ Major C. Stone, *The Economics of Defence in Canada Presentation* (Toronto: Command and Staff College Course 29, 02 October 2002), slide 8.

⁴ Canada, *Department of National Defence 1994 Defence White Paper* (Ottawa: Department of National Defence, 1994), Chapter 1.

focused economies of scale, management expertise, and more importantly the freedom from the bureaucratic rules and regulations to which all government departments were held. ASD, it was argued, would provide more cost-effective delivery of equivalent services through various techniques such as sub-contracting, hiring practices, and competitive labour methods. These techniques would benefit the Department of National Defence (DND) through reduced support costs, including material and manpower. ASD would translate into a reduced requirement for the delivery of support goods and services by uniformed personnel, thereby freeing these military personnel resources for military operations. This would essentially eliminate any excess and waste in the military structure, which brings into question the mindset of those who imposed ASD on DND. Essentially, it goes back to the effectiveness versus efficiency debate. ASD may indeed be more efficient but reduces the CF's effectiveness.

In the heady days of ASD (1995-1998), it was largely believed that contracting out would be the panacea to ease the Department's financial and support woes. Many believed that contractors would beat a path to DND's doors in an effort to bid for that business and that DND would then be able to turn ploughshares into the swords so desperately required for operations. (In reality the CF/DND is really a small customer for many companies.) The Department would then be able to focus on operational output rather than support requirements. As a means of furthering this belief, the Director General Management Renewal Service (the precursor to Director Strategic Change) was tasked to examine alternative means of employing these 'freed up' DND personnel. The dilemma at hand was, with service delivery being provided by contractors, what would be done with all the military personnel essential for operational deployments and the ship-to-shore ratios. The result was the "Morton Paper", produced by Colonel W.E. Morton, which offered a preliminary overview of 'basic embedding' based upon a non-technical review of extant practices in 1997/98. The report was to become the impetus for further discussion of the possibilities and pitfalls that would be brought about with embedding.

Why embed at all? The reason for embedding soldiers/sailors/airmen is quite simply to provide static employment for our military personnel when they are not deployed, thus maintaining the primary objective of a ship-to-shore ratio and technical competence. Embedding also has added benefits such as exposure to commercial best practices and leading-edge technology, civilian accreditation for military members, and opportunities for specific technical training not always available through the DND. With benefits come associated risks, which include the lack of professional development of an officer corps while deployed to a largely civilian organization, the difficulty in the maintenance of a military ethos, and a loss of ship-to-shore ratio.

The embedding of personnel, although having great potential from efficiency, cost, and personnel skill perspectives requires careful consideration from the CF/DND before wholesale adoption, so as to learn from the experience of other countries. The embedding concept is new and on the scale envisioned by CF/DND it is largely unproven. The results to date have generated mixed reviews, with a number of teething problems. Canada is going into ASD/embedding in a big way as the enthusiasm for embedding has waned in other countries. Up until

now there has been little risked and little gained in the ASD experience; however, embedding represents a gamble that the CF/DND cannot afford to pass up in its current state.

1.1 Aim

This paper reviews and analyzes the basis of the Department of National Defence organizational structures that include policy, doctrine, operations, initiatives, concerns and how they impact on the concept of embedding in the process of ASD. Once the impact has been identified, a review of the options for embedding military personnel, including mass versus single formations, will be discussed and argued. Conclusions and recommendations will be drawn from the supporting discussion and references.

This paper proposes and recommends a practical method for the future embedding of military personnel within a contracted defence supply or service provider. It will gauge whether or not embedding is a positive move for the CF/DND, its' potential for growth, advantages/disadvantages, drawbacks/shortfalls, and its overall value to the CF/DND. Embedding within ASD contracts is but only one method of achieving fiscal and manpower resource savings. As other countries have employed other options to meet obligations within their decreasing military resources, these too will be discussed.

For the purpose of this paper the Supply Chain Project (SCP – see Definitions for further explanation of project) will be the reference point from which examples will be drawn. The deliberations and paper decisions produced by the Environmental based working group will form part of the background material.

SECTION 2 – Main Body

2.1 Reference Documents

2.1.1 The 1994 Defence White Paper

The 1994 Defence White Paper was the latest of several white papers to lay out governmental strategic direction for the Department of National Defence. The document provided the mission, vision, and objectives of the CF, with heavy emphasis on a requirement for fiscal responsibility given the fiscal reality of the time. The White Paper highlighted several areas for potential savings on resources through its recommended solution of 'out-sourcing'. This paper was the impetus for many of the department's major re-engineering projects and programs as well as for implementing management reform and change. The 1994 White Paper still seems to provide a sound basis for current operations – combat-capable multi-mission forces. The questions arise in the interpretations of what this actually means.

By the time the White Paper was introduced, the peace dividend expected did not come to pass and Canadian troops were deployed to the four corners of the globe, on missions in

locations such as Somalia, the Former Yugoslavian Republic, Rwanda, and of course the Persian Gulf. The White Paper was produced in the context of these operational deployments. Now, more than ever, the military required training and equipment that would enable them to do the jobs the government had deployed them to do, but there were few resources available to ensure that the deficiencies in these enablers were addressed. Options were limited and difficult choices had to be made due to financial restraints and the ever-increasing demands to human resources available for missions. The White Paper reflected the reality of the situation:

... to maintain this general capability, we have had to make some difficult choices. We will continue to assess the relative costs and benefits of various capabilities in order to make trade-offs which, while difficult, will be essential if the Forces are to contribute to a broader range of Canadian objectives.⁵

The White Paper indicated several areas of change that could achieve the objectives required by the government to allow for increased resource (manpower and equipment) efficiencies. These areas included: capital equipment and procurement; headquarters management; command and control structures; infrastructure costs and supports; and, manpower reductions. The areas where changes could be realized were outlined in Chapter 7 of the White Paper - Implementing Defence Policy. Chapter 7 contained departmental assessments and directions for the aforementioned areas. In the area of capital equipment and procurement, the direction provided was that DND would acquire new equipment “only for purposes considered essential to maintaining core capabilities of the Canadian Forces.”⁶ Core capabilities are defined as those activities that can only be carried out by the military; we can speculate that all other activities can be service supported by contractors or non-military agencies. Again the interpretations of just what are the core capabilities – field forces for peace support operations or field forces maintained ready to go for big operations or cost prohibitive when the contractor is reluctant to go into active theatres; thus support activities become core to the military. It is not merely an either or situation, DND must have capabilities that address the spectrum of needs and conflict as defined in the White Paper. As a result of this direction, DND looked to divesting itself of the non-core activities that it was presently providing. The requirement was highlighted in the White Paper:

The Department will also enhance its partnership with the private sector. Where business-case evaluations demonstrate potential for increased cost effectiveness, support activities currently conducted “in house” will be transferred completely to Canadian industry or shared with private industry under various partnership arrangements.⁷

⁵ Canada, *Department of National Defence 1994 Defence White Paper* (Ottawa: Department of National Defence, 1994), Chapter 3.

⁶ *Ibid.*, Chapter 7.

⁷ *Ibid.*, Chapter 7.

Other areas of note such as headquarters management and command and control, were assessed as adequate, but too many resources had been apportioned to the department; infrastructure had already undergone reductions and it was seen as a viable starting point for further reductions. Manpower reductions would continue.

The Canadian Forces will reduce military staff in certain occupations and trades as functions are contracted out or reassigned to civilian employees.⁸

DND now had a clear ‘commander’s vision’ of where it had to go and what it had to do to get there. In an effort to maintain credible activities and capabilities to meet the government’s global foreign policy requirements, DND had to produce a means by which it could reduce, save, and maintain. Efficiency at the expense of effectiveness.

2.1.2 Structure

Key components of any military organization tasked with meeting national objectives are policy, doctrine, management, and operations. The 1994 Defence White Paper provides national operational guidance to meet Canada’s strategic objectives. To meet these objectives, the military plans its operations around doctrine, policy, and available resources (manpower and equipment). As previously defined, core capabilities are those capabilities/activities that can only be accomplished by military resources, and non-core capabilities are those which can be provided/supported by non-military agencies (contractors, etc). As a result of this, the support occupations (maintenance – land and air, human resources – administration and finance, supply, transport, and food services) have all been considered for ‘outsourcing’ or contracting out by means of a non-military service provider. This has allowed for the very limited number of military resources to be steered to core capabilities to fulfill operational requirements.

The support occupations have undergone numerous re-engineering initiatives over recent years to realize savings; these initiatives have impacted on all areas of the organizational structure. A great majority of the support occupations are involved in a variety of functions, capabilities, and activities nationally and internationally, that have been deemed non-core and as such are potential ASD components.

2.1.3 Government Budget

The annual budget is central to the agenda of any Canadian government. The DND budget comprises some 6% of federal government spending and close to 30% of discretionary spending; it is not surprising that it is a focus of attention, and usually the major source of savings when governments are forced with fiscal pressures to preserve non-discretionary programs. The health of the defence budget is also a reflection of the government’s priorities, the ruling party’s vision of the world, and acceptance of risk. Basically, DND has been faced with a growing funding crisis since severe budget cuts (23%) were applied during Program Review from 1995 to 1997.

⁸ Ibid., Chapter 7.

Since that time the CF/DND has tried to maintain the “old” armed forces on a reduced budget rather than creating a “new” military more attune to the times. The hard choices, in terms of scaling back within fiscal realities that were called for in the 1994 White Paper were not taken. Perhaps more significant in the case of defence spending, budgets have evolved into policy-making documents – which many argue is a process fraught with risk.

Given the fiscal realities of the defence budget that immediately preceded and followed the issuance of the 1994 White Paper, there was not much maneuvering room, as many of the options had been considered prior to the production of the Government’s strategic direction (and Canadian Defence Expenditures 1950-2000 chart).⁹ Further, things were not going to improve, and the government was very hard-nosed on the direction provided with respect to manpower, equipment, and general funding.

The 2001 Budget (tabled in December 2001) was deemed unsatisfactory from the point of view of the CF/DND. The Conference of Defence Associations pointed out two main concerns:

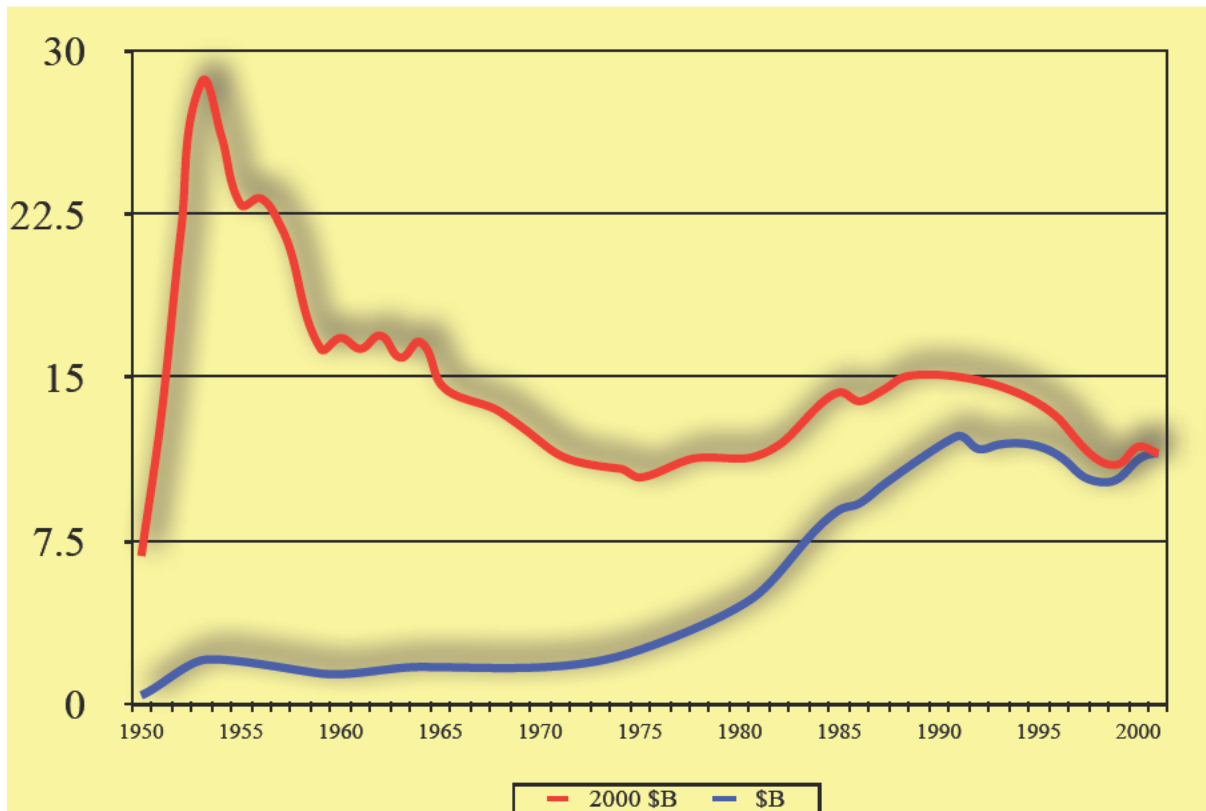
- Funds assigned directly to military capabilities of the Canadian Forces are well below the amount needed to resolve current deficits, let alone modernize those capabilities; and
- The manner in which money for defence is presented lacks clarity and could be misleading for those interested in national security issues, but not well informed on budget procedures.¹⁰

An analysis of Budget 2001 shows that, of the \$1.2 billion allocated to the Department of National Defence over five years, only \$ 510 million (over two years) is assigned to support conventional military capabilities, and \$ 210 million of that amount has already been spent on operations in Afghanistan and the Arabian Sea. These are telling figures in light of the Office of the Auditor General’s (OAG) report that the deficit in the Department of National Defence Operations and Maintenance account alone is running at some \$ 1.5 billion per annum. The primary cause for the decline of the CF/DND has been the Government’s failure to provide

⁹ Major C Stone, *The Economics of Defence in Canada* (Toronto: Command and Staff Course 29, 02 October 2002), Slide 11.

¹⁰ Conference of Defence Associations, *A Nation at Risk – The Decline of the Canadian Forces* (Ottawa: The Conference of Defence Associations Institute, September 2002), p 7.

sufficient funding to implement the details of the 1994 Defence White Paper and the



department's inability to restructure and live within its means.¹¹

Source: DND Annual Reports; Estimates Part III and Major C. Stone's Presentation¹²

Regular Force personnel numbers: 1953-104,427; 1959-120,412; 1965-114,164; 1972-84,933; 1975-79,817; 1980-80,166; 1985-83,910; 1990-87,976; 1995-72,079.

Canadian Defence Expenditures 1950-2000

The numbers call into question previous analysis on the dramatic reductions in the CF/DND from the 1994 White Paper; steady reductions in funding and personnel took place from 1972 to 1995, thereafter the personnel level was set at 60,000. The table must be tempered by the relative size of the armed forces; more is being spent per soldier on defence in 2000 than in 1972. To effect true savings, the actual number of the regular force should be somewhere around 43,000. Only the multiple deployments of the CF abroad through the 1990s kept the level at 60,000. The problem is that ASD reduces the number of service personnel but has a history of being more expensive; personnel equals money, whereas less money equals fewer personnel.

¹¹ *Ibid.*, p 8.

¹² Stone, *op cit.*, Slide 11.

2.1.4 CF/DND Management Teams

The department established several teams to study and report on the options for the way ahead. Among these were: the Management, Command and Control Reengineering Team (MCCRT), responsible for rationalizing and reducing all headquarters by one-third, thereby eliminating at least one layer of bureaucracy¹³; the Military Occupational Structure (MOS) review, responsible to quantify the ideal ship-to-shore ratios¹⁴; and the DGMRS team under Colonel Morton, responsible for investigating the means to keep the ship-to-shore personnel employed.¹⁵ In addition, the environments also had their share of steering committees, ASD review teams, and projects awaiting analysis and approval.

The MCCRT deemed that in an effort to meet the requirements of the White Paper there would have to be significant reductions at all levels of DND from the top on down. The teams toiled away in isolation of each other realizing only small and minor reductions. On the support side, many of the authorities were devolved down to the lowest level, thereby allowing for many new and alternate means of providing support and services. The flexing of rules, restrictions, and regulations were causing an eruption in new and innovative means of delivering services heretofore delivered by military organizations. In the end, DND never made the hard choices and would not make significant reductions in personnel; it opted instead for attrition and voluntary buyouts.

2.1.5 Policy Origins

2.1.5.1 Treasury Board

The new Alternate Service Delivery (ASD) process developed a following but with no concrete guidance from those that had encouraged it. At the same time, ASD (part of a wider government trend) was twinned with ‘contracting-out’ and the concept swept through all government departments. As a result of ad hoc processes and unregulated practices, the Treasury Board Secretariat produced a policy directed at the implementation of ASD for all government departments. The 1995 guidance document was titled ‘A Framework for Alternative Program Delivery’. The objectives of the document were basically to improve the level of service provided, to ensure best value for the funds expended, and to balance innovation with public core values. The encompassing statement from the guidance document stated: “the Government of Canada encourages continuous improvement and innovation in the delivery of its programs and services. Innovative organizational forms and arrangements can play an important role in

¹³ Canada, *Department of National Defence Management, Command and Control Information Package for Senior Managers, January 1996* (Ottawa: Department of National Defence, 1996), p 4.

¹⁴ Canada, *Department of National Defence Canadian Forces Human Resources, Military Occupational Structure, Analysis, Redesign & Training (MOSART), 2001* – www.forces.ca/hr/osart/engraph/documentation_e.asp

¹⁵ Canada, Director General Management & Renewal Services, “*Management Renewal Services: Embedding Military Personnel in Outsourcing Contracts*” (Ottawa: Department of National Defence, 1998), p 1.

improving performance. Alternative Service Delivery arrangements must deliver sustainable results for Canadians and reflect the public interest.”¹⁶ Further Alternative Service Delivery entails the pursuit of new and appropriate organizational forms and arrangements, including partnerships with other levels of government and other sectors, in order to improve the delivery of programs and services. Innovative organizational arrangements for delivering government programs and services can potentially result in:

- more cost-effective, responsive delivery to Canadian citizens;
- changes in organizational culture and management practices so that the organization performs more effectively (greater efficiency, not necessarily effectiveness); and
- the granting of greater authority to managers, thus moving decision-making closer to the point of delivery, to the communities served and to Canadian citizens.

Treasury Board added that a federal public sector that is committed to championing innovation through a wide range of promising avenues is key to the continuing success of the Canadian experience with alternative service delivery. These innovative avenues of organizational arrangements and transformations within the Government of Canada include;

- horizontal integration of service delivery between federal departments and agencies;
- vertical integration of service between governments, as they share the responsibility of serving citizens; and
- strategic alliances and partnerships with the private sector and with volunteer and not-for-profit organizations.¹⁷

For Treasury Board, ASD has two distinct parts:

- establishing the appropriate organizational forms within departments, outside traditional departmental structures or outside the public sector, to improve organizational performance; and
- bringing together organizations from across government, between levels of governments, or across sectors, through partnerships (for example, "single windows," co-locations, or clustering of services to citizens) to provide more seamless and citizen-centred services.¹⁸

¹⁶ Canada, *Treasury Board Secretariat Policy on Alternative Service Delivery*, 2002 www.tbs-sct.gc.ca/pubs_pol/oepubs/tb_b4/asd-dmps1_e.html#1

¹⁷ *Ibid.*, Section 2.

¹⁸ *Ibid.*, Section 2.1.

DND took the Treasury Board direction and incorporated it into its own policy for ASD initiatives and innovations, encouraging savings and reductions wherever possible. These savings could be then, it was assumed, re-invested into equipment shortfalls. Many new and innovate methods of service delivery were introduced at all levels with no over-arching oversight; as a result each unit, wing, base, or ship did their own thing within the very broad guidelines issued by the VCDS and DGMRS.

With a requirement under the White Paper to realize significant savings, DND set forth to determine the scope of activities amenable to ASD. As a result, new and very innovative ways of doing business and providing services emanated from all areas of the department. Ways to provide support efficiently and effectively and services at home and abroad were produced that would result in a reduction of both personnel and waste. Rationalization of every facet of the operation was undertaken, leaving options overlooked. It was thought that procuring ‘off-the-shelf’ or buying ‘just-in-time’ would free up funds by eliminating warehousing and handling costs, thereby leaving the difference to be reinvested back into equipment and combat capabilities.

In 1996, MCCRT speculated that larger savings could be realized if the function itself could be contracted out to industry with DND providing only minimal contract oversight. The dividend from this activity was made even more palatable when initial estimates for savings were believed to be in the magnitude of \$200 million annually. This figure/prediction was later drawn down by the 1999 Defence Planning Guidance to that stated the estimate was in the neighbourhood of \$175 million by 2004.¹⁹ DND was encouraged to maximize the potential ASD returns by “aggressively competing sectors of support services...” at this point major projects had already been initiated – the Supply Chain Project (SCP), Military Pay System, and the Site Service Support Project (SSSP).²⁰

KMPG Consulting was contracted to survey the department’s capacity for utilizing the ASD process. KMPG Consulting was to determine DND’s capability to “properly situate ASD within the strategic change perspective, and to ensure ASD is clearly oriented to optimizing combat capability.”²¹ Basically, the survey reported that DND was in the initial phases of ASD development and that more could be done to facilitate the process.

2.1.5.2 Auditor General (OAG)

The Office of the Auditor General (OAG) also weighed in on the subject of ASD in several of its annual reports. The OAG raised concerns about the use of business case analysis, a

¹⁹ Canada, *Department of National Defence Defence Planning Guidance 1999* (Ottawa: Department of National Defence, 1999).

²⁰ Canada, *Department of National Defence Director General Strategic Change: ASD Policy* (www.vcds.dnd.ca/dgsc/asd/tem2_e.asp), p 2a.

²¹ KMPG Consulting, *Department of National Defence: ASD Capability Check Assessment* (Ottawa: Department of National Defence, 2001), p 3.

lack of partnering policies within the department, and a shortage of ASD qualified personnel.²² This concern was echoed in the updated Treasury Board policy on ASD entitled “The New Policy Oversight of Alternative Service Delivery Arrangements”.²³ The Treasury Board’s greatest concern has been that many ASD projects have not been innovative and imaginative support services solutions have not adequately reflected the requirements of savings, accountability, and results that were ‘sold’ to the department. The new guidance demands more accountability and control over projects. The OAG agrees that DND has the basic framework to manage projects and deliver ASD projects, but this framework is in its infancy and has never really been tested.²⁴

ASD in the department is a lessons learned activity; we learn from the past so as not to repeat it in the future, much like the operations we take part in. As a result of the OAG’s report, the VCDS issued guidance on outsourcing and methods of ASD, through the DND Policy – Alternate Service Delivery document.²⁵ As described in Chapter 3 of this policy the department categorizes ASD options under 5 distinct groupings: contracting options, privatization options, devolution options, partnering options, and internal options. The methodology, project management, and implementation are all concepts that change from project to project for their guidance stems from the VCDS’s guidance document. What may work for one project cannot be templated over another. Implementation of an ASD project is only the beginning, not the end, of a project; even though the project matrix team may disappear, there will always be contract oversight personnel installed to oversee the project on behalf of the department.

2.1.5.3 Personnel Sourcing

As outlined in the White Paper, DND was to target its non-core capabilities for outsourcing or ASD, “as a strategy to carry out the 1994 Defence White Paper operational requirements, the Department remains firmly committed to divesting itself from delivering non-core activities where it is cost-effective and practical.”²⁶ The MOS Review (mandated by the VCDS in 1992) assisted in identifying core and non-core positions within the department. The review was to “determine the optimal number of military personnel required in each occupation to meeting the existing operational requirements.”²⁷ Those identified as ‘optimal – required to

²² Canada, Auditor General of Canada, *1999 Report of the Auditor General: National Defence Alternative Service Delivery* (Ottawa: Office of the Auditor General, 1999), Chapter 27.

²³ Treasury Board of Canada, *The New Policy Oversight of Alternative Service Delivery Arrangements* (www.tbs-sct.gc.ca/media/nr-cp/2002/0220_e.html), 20 February 2002.

²⁴ Canada, Auditor General of Canada, *op cit.*, Chapter 27.

²⁵ Canada, *Department of National Defence – Director General of Strategic Change: ASD Policy*, http://www.vcds.dnd.ca/dgsc/asd/tem2_e.asp?sec=2&doc=page2a 24 January 2002

²⁶ *Ibid.*, Chapter 27.

²⁷ Canada, *Department of National Defence-Canadian Forces Human Resources Military Occupational Structure, Analysis, Redesign and Training (MOSART)*, http://www.forces.ca/hr/mosart/engraph/documentation_e.asp 15 October 2001.

support operational requirements' in each occupation would not see the occupation reduced below that number; these positions were required to meet the basic ship-to-shore ratios. All other personnel numbers not required considered likely to be incorporated into ASD initiatives. Most of the not required or non-core positions identified were in the support occupations. But positions that were identified as core (required to do the work), which did not necessarily have to be done by military, and could be 'outsourced'; nevertheless, the military bodies were still required for the ship-to-shore ratios mandated by the government.

As identified, there is still a requirement to have military personnel in many of the support roles that were singled out by the MOS Review and MCCRT report but not necessarily within the military structure. Outsourcing of functions leads to the outsourcing of military personnel into a contractor's formal structure to perform tasks in support of the military, contracted to the contractor. Many functional changes must be addressed on the subject of sourcing for outsourcing. A requirement to develop a mechanism by which military personnel can be sourced to a contractor is called embedding.

SECTION 2.2 – Initiatives and Impact

The science of planning and carrying out the movement, distribution, and maintenance of forces is commonly called Logistics. Logistics includes, but is not limited to supply, transportation (including movements), administrative services, financial services, food services, postal, maintenance and repair functions. A key component of a historically successful military operation has been the role logistics has played in that operation. Complex planning, procurement, and distribution systems, limited budgets, and operations (at home and abroad to underdeveloped regions of the world) make effective logistic support a critical element in the conduct of a successful military operation. The importance of logistics is demonstrated by the following quotations from historical figures:

The supreme excellence is not to win a hundred victories. The supreme excellence is to subdue the armies of your enemies without even having to fight them.

- Sun Tzu, *The Art of War*

My logisticians are a humorless lot...they know if my campaign fails, they are the first ones I will slay.

- Alexander

Logistics comprises the means and arrangements which work out the plans of strategy and tactics. Strategy decides where to act; logistics brings the troops to this point.

- General Antoine Henri Jomini, *Precis de ll'Art de la Guerre (The Art of War)*, 1838

You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics. - General Dwight D. Eisenhower²⁸

A key logistics objective is to sustain a force to the required level for the duration of operations. Sustainment requires having sufficient personnel, equipment and stocks on hand and the ability to resupply and reinforce as required. The last requirement depends upon the resilience of the logistic system, inter-operability of equipment, and commonality of weapons and ammunition, as well as the commercial/private sector responding to the requirements in a reactive manner.

In 1996, Canada repatriated its Germany-stationed NATO assigned troops. As a result, the CF/DND operational concepts are based on Canada-centric strategic deployment and sustainment of forces. Canada and the CF have become involved in operations that are more diverse and complex, ranging from disaster and humanitarian assistance (earthquake relief, mudslides, food relief) and peacekeeping (Somalia, Rwanda, Eritrea/Ethiopia, and Bosnia) to combat missions (Kosovo and Afghanistan). These operations tend to take place in austere theatres where alternative sources of support (i.e. host nation support, allied support, or local procurement) are usually not available to any significant extent, since local needs predominate. In this type of operation, the CF needs to enhance its deployable command and control and logistics force structures, and take what they need to the theatre of operations. In other words, the CF is engaged in expeditionary force operations and must be self-sufficient and self-contained, utilizing primarily Canadian sources. The CF practices expeditionary operations but is not optimized organizationally, doctrinally, or in the area of command and control (C2) to conduct expeditionary operations.

As previously mentioned, the requirements of the 1994 Defence White Paper cannot be sustained by the CF Logistics system. This is due mainly to a lack of personnel, equipment and funding. However, the present CF support structure has the necessary national-level logistics support infrastructure in place, and all three operational commands possess both formation and wing/base/unit level support units to sustain tactical support forces. Lacking are the deployable operational level support manpower and material resources. In times of crisis, governments can devote funds to acquisition of material resources. Funds, however, will not resolve the manpower commitments in an emergency. Capable reservists augment deploying operational units or personnel are robbed from lower priority units/missions or simply go without due to unavailability of these manpower resources. Combat service support troops need to be trained and employed as integral parts of formed units, as do other combat troops such as ships crews or members of infantry battalions. This suggests that the CF does not view logistics as a critical operational priority, preferring instead to muddle through in an ad hoc fashion. The overall shortage of personnel precludes unit training and leads to increased stress as well as diminished efficiency, effectiveness and morale. Evidence has been emerging that this employment practice

²⁸ Matthew D. Cox, *Virtual Logistics* (www.virtuallogistics.com), 1999)

could be contributing to increased incidents of stress-related casualties among the combat service support troops. Rotations 8, 9, and 10 for OP PALLADIUM show sign of such disintegration.

2.2.1 National Military Support Capability

In 1999, the CF undertook a review of its deployment capabilities and identified the requirement for a military organization that could provide resource support to Canadian Forces deploying on joint operations. A National Military Support Capability (NMSC) was established that would have as its primary mission the deployment of a large support element (Joint Support Group – JSG) to service and support deployed CF units at home and abroad above the tactical level. This entire capability will, by 2006, evolve functionally into the Canadian Forces Joint Support Group (CF JSG). To date, the project has developed a system to organize the necessary personnel augmentation from Regular and Reserve units across Canada to enable the Canadian Forces to conduct and sustain an operation in Canada or anywhere in the world. The NMSC project is based on recommendations made by several DND/CF working groups whose ultimate aim is to form a CF JSG that will become the newest element of the CF JOG. The CF JSG will have the capability to raise a Joint Task Force Support Group (JTFSG) that would deploy into a theatre and provide support for the reception and initial employment phase of a new mission. The operational level JTFSG will serve as the in-theatre link between national support provided from Canada and the support integral to tactical units in the field. It will then re-deploy to Canada once the support group for the first rotation replaces it. Back in Canada, the CF JSG will be able to provide the necessary reaction time required for the CF to source, train and prepare other forces for rotations. Furthermore, the JTFSG would serve as the core, while in theatre, for the long-term sustainment of a Canadian vanguard force of about 4,000 persons, or for a force expansion for a Main Contingency Force (MCF) of up to 12,000 persons. In its deployed form, the JSG will consist of a dedicated commander and headquarters staff and integral support elements including engineers, health services (evacuation and trauma treatment), military police, logistics, equipment management, communications and contractor capability. The CF JSG will be able to provide operational-level support to Canadian forces employed in campaigns and major operations within an area of operation. Expeditionary force operations usually create a need for significant deployable operational level support forces because the force is deployed far from national infrastructure and often operates in an austere area where local support is limited or non-existent. The JSG will also engage in co-operative actions with Alliance or coalition partners, as well as the host nation, freeing tactical units to conduct military operations. It is hoped that the Joint Support Group will bridge the strategic and operational levels to ensure national support is provided to deployed Joint Task Forces.²⁹

Procurement and funding delays in replacing equipment, as well as the inability to maintain adequate levels of spare parts, have reduced operational capabilities and saddled the military with a huge increase in maintenance and support costs. It would be better to scrap older

²⁹ National Military Support Capability (NMSC) Project Website: www.forces.gc.ca/eng/archive/2001/aug01/18military_b_e.htm

platforms/systems rather than keep going with the large maintenance and repair bills. The supply system can rarely meet urgent demands (due mainly to the age of the equipment and the unavailability of spares) and there is a shortage of maintenance (vehicle and aircraft) personnel. The lack of spare parts leads not only to more down time for equipment but also to increased workloads on already heavily taxed maintenance crews who are required to rob parts from one vehicle, aircraft, etc to get another one to a serviceable state. This phenomena has become evident in the aircraft world with the Sea King, Aurora, and the Hercules, and is a particular problem with the older models flown by the CF. It is time to retire older equipment, but the CF is not willing to lose capability until a replacement is certain, again another hard choice is not being made.

The CF supply system (as well as several of the other logistics components) finds itself in this position due to two primary reasons:

- a. A lack of funding has precluded stocking of a proper level of spare parts and the timely replacement of equipment and other aspects of combat service support, and
- b. On the long-term side, the concern is that the shortage of funds has led to the progressive replacement of military logistics units, facilities and, most importantly, highly trained uniformed logistics personnel by the application of the concepts of Alternative Service Delivery (ASD) and Direct Contractor Support (DCS).

In CF/DND the individual responsible for ensuring effective material procurement and logistics support is the Assistance Deputy Minister (Materiel) – ADM Mat. In order to ensure effective material support, ADM Mat is a major participant in the planning and implementation of the Long Term Capital Equipment Plan as well as in general logistics planning and operations. The need to meet and plan for future requirements is paramount, given the funding envelope DND now finds itself working within. As a result of these identified shortfalls, it became necessary to look for alternative means of providing the support required to deployed operations. The crux of the problem appears to be conflicting demands: reduce the money spent on support services to gain money for capital acquisitions while at the same time pay for costly ASD initiatives that might or might not work, in order to reduce the number of service personnel. Two logistics options that are currently being applied that supplement CF support to deployed operations are: the Balkans Theatre Rationalization Project and the Canadian Contractor Augmentation Program (CanCAP). Both options are alternative service delivery projects involving civilian commercial contractors.

2.2.2 Balkans Rationalization – Contract Support Project (CSP)

In an effort to relieve the exhaustion of a fast paced operational tempo that affected mostly support personnel, the Balkans Rationalization – Contract Support Project (CSP) was put into place in the fall of 1999. By way of background, NATO had decided to restructure its deployed forces in Bosnia-Herzegovina (BiH); this decision afforded Canada the opportunity to

do the same. The Deputy Chief of the Defence Staff initiated a Balkans Theatre Rationalization Study to review the CF's contribution to both the BiH and Kosovo theatres of operation (why not study how to leave Bosnia for good – a withdrawal rather than a rationalization). Included in the review of the commitment was a decision to use civilian contractors to assist in the delivery of several support services required by the CF contingent in BiH. The decision was seen as assisting the CF in two major areas. The demands placed on CF personnel in many of the support trades and classifications were beginning to affect the overall ability of the force to meet its prescribed mission requirements, while concurrently maintaining adequate capacity for any new short-notice missions that might be directed their way – either NATO or UN. In addition, the increased pressure placed on the support occupations threatened to become a serious quality-of-life issue (tour lengths and quality-of-life issues have already been briefed to the SCONDVA Committee during their deliberations).

2.2.3 Contractor Support Project (CSP)

As a result, the CF looked for ways to relieve the mounting pressure while at the same time addressing the issue of supporting its deployed operations without adding to either the number of deployed support personnel or the workload (at home or abroad). Out of this dire rationalization process situation, the Contractor Support Project (CSP) was born with two main aims:

- To increase the operational flexibility of the CF by creating a new capability that uses Canadian business to support deployed operations; and
- To relieve the stress currently imposed on CF members in service support occupations by the demands of Canada's continuing commitments in the Balkans.³⁰

The CSP contract established the requirement for civilian contractors to supply goods and services to CF elements deployed in the Balkans. This contract would assist the CF in giving it the required flexibility needed to meet specific security challenges, while at the same time maintaining current personnel and relieving the strain on CF members.

The initial two-year \$83 million contract was awarded to ATCO Frontec, with an option to extend for an additional one year at the cost of approximately \$32 million. (Of note, the contract is in jeopardy, largely because ATCO Frontec has not met the [unrealistic] statement of work.) In return ATCO Frontec was obligated to provide the following support services:

- Warehousing;
- Supply and materiel processing;
- Laundry and billeting (accommodation) services;
- Equipment management;

³⁰ Balkan Rationalization – Contract Support Project website: www.forces.gc.ca/eng/archive/2001/dec01/15CSP_b_e.htm

- Transportation;
- Bulk fuel management;
- Vehicle maintenance;
- Food Services;
- Communications Services;
- Camp Maintenance (including electricity, water supply and distribution, and waste management);
- Facility Operation and Maintenance;
- Roads and grounds maintenance;
- Fire services; and
- Environmental protection.

Notwithstanding this detailed Statement of Work (SOW) there has been a great deal of growing pains for both the contractor and the units being supported. For the contractor, the type and amount of support to provide has been somewhat underestimated. For the units, dealing with civilian organizations has been a new experience. A myriad of ‘Lessons Learned’ have been garnered from the past two-years of the project, mainly dealing with cost overruns, command and control relationship issues, the management of Government Furnished Equipment (GFE) matters, and public sector human resources problems. Both J4 Logistics staff and ATCO Frontec are addressing all these issues and others to ensure that the support contractor for is the support provided.

As mentioned, the goal of the project was to augment or replace Combat Service Support troops with contracted civilian personnel, thereby reducing the over-tasking that produced high stress among the former. A reduction of approximately 50 per cent in the number of uniformed support personnel required for OP PALLADIUM rotations was effected. It is estimated that approximately 163 soldiers have been reduced for every 6-month rotation. This would mean that 326 individual soldiers would not be deployed to this theatre in a given year (these figures still have to be validated by the J4 Logistics Audit). But DND must still provide military personnel to supervise the contractors. However, to date we have saved approximately 152 soldiers per rotation.³¹ While there have been a reduction of support personnel to the Bosnian/Balkan theatre, there has also been an increase in support personnel being deployed to other theatres – Ethiopia/Eritrea, Afghanistan, Congo, etc. Yes, the CF saved personnel but they still had to prepare for, or be on standby for, other operations. There are opportunities for contractors in the aforementioned theatres and regions but it is estimated that the cost would be more expensive to DND given the risk and associated conditions. This project procedure has represented a significant change to the normal way of doing business in the military, and both the support organizations and the prime contractor are learning as their relationship progresses. Several key issues have been recognized by the CSP and are being addressed:

³¹ Balkan Rationalization – Contract Support Project website: www.forces.gc.ca/eng/archive/2001/dec01/15CSP_b_e.htm

- Military/Civilian integration;
- Maintenance of Military Discipline;
- Personnel Management;
- Status of the contractor under the Status of Forces Agreement (SOFA);
- Legal Liabilities; and
- Transition periods between rotations.³²

A major concern of this project is how long the contractor can sustain his in-theatre workforce, given that he draws heavily on the ranks of retired military members and local hires for labour. Lucrative contracts, such as those offered by the contractor, may have an adverse effect on the retention of experienced and qualified presently serving military members; however, only time will tell. Although CSP is an effective way to support CF deployed operations in BiH, it may not be suitable for all situations in operational theatres. Operational effectiveness will always be the primary factor governing the delivery of goods and services to deployed forces; in any situation deemed unsuitable - for example, in areas where service support personnel could encounter armed belligerents –CF members will perform service support functions.

As a result of the MOS review and the NMSC study shortfalls in support readiness and sustainability were identified. The NMSC highlighted a need for a basic pre-planned contractor support arrangement for deployed operations – one that could be pulled off the shelf and templated over most plans. The Canadian Contractor Augmentation Programs (CanCAP) was drawn up to create an already contracted for contractor capability that could be ‘called upon’ when and where required by the CF to support future operations, in effect a list of qualified suppliers. J4 Material had designed the program with a mature, stable and secure environments (low level peacekeeping) in mind rather than a high-risk environment (combat operations), which would continue to require a dedicated military capability. The strategic intent of CanCAP was to:

- Provide the Canadian Forces with additional operational flexibility through enhanced support capacity;
- To free up military personnel for employment where their military skills were most needed; and
- To allow more concentration on the preservation of support-to-war fighting skills in the support forces.

³² Colonel M. Gervais (J4 Logistics), Canadian Forces Support to Operations (Winnipeg: A4 Logistics Conference Briefing, April 2001), Slide 21.

The CanCAP principles include: the operational effectiveness of the unit or mission must not be jeopardized; an optimization the use of scarce military resources; the maintenance of current support standards as a basic minimum; and a clear accountability for the provision of support.

CanCAP for the CF is: contractor augmentation to the present CF support capacity, in essence a force multiplier; designed for mature, stable, secure theatres (thereby decreasing the liability issues), applicable to deployed operations; suitable for single service (Army, Navy, or Air) or joint operations; encompassing a wide range of support functions that include logistics, infrastructure, and personnel support; and it can be viewed as another tool to be drawn upon from the support toolbox.

CanCAP has not been designed to be just another form of DND Alternate Service Delivery (ASD) that would support to routine domestic wing/base activity or be restricted only to the logistics (ADM (Mat)) function. CanCap is restricted to joint operations and is not a panacea for all problems and challenges in the area of support to operations.

The program has a very flexible concept of operations that includes two distinct capabilities: contract planning and management; and service delivery. In addition the support provided is limited to CF operations only; the selected contractor cannot take on any additional in theatre 'clients'. As such it will be an integral component of the NMSC/JSG. The employment of CanCAP elements will be in mature, stable, benign theatres abroad and capable of supporting multiple theatres concurrently. The security risk will drive the application of the employment, as will the readiness requirements put up against the cost factors. It will have a definite impact on traditional Combat Service Support in the force structure, drawing not only from existing military policy/procedures but also from industry interest and capabilities to achieve the end-state, support to the mission or operation.

As outlined, CanCAP is not ASD but rather it is an augmentation project to free up limited military resources. Neither CanCAP nor the Balkans Rationalization Project do anything to address the severe skill and personnel shortages in the combat service support occupations. As such, the matter of Alternate Service Delivery and the embedding of those required military manpower resources must be discussed and addressed to ensure that what the CF is endeavouring to do the address deficiencies is in the best interest of the military.

2.3 Embedding

2.3.1 What is it?

So what is embedding? By the dictionary definition, embedding is "to fix firmly in the surrounding mass".³³ In the case of the SCP (see Definitions), the embedding concept sees

³³ *Concise Oxford Dictionary* (Oxford: Oxford University Press, 2000)

military personnel employed by a contractor to carry out the static supply chain function, yet still available to their military chain of command for operational duties, taskings, and training. As outlined in Annex F of the Request for Proposal (RFP) for SCP, the following considerations were to be addressed by all respondents to the RFP:

- The Contractor shall be responsible for obtaining competence certification for embedded personnel where such certification is required by provincial regulation;
- The Contractor shall exercise due diligence with regards to liability issues regarding military embedded personnel;
- Proponents will be required to provide military embedded members with a similar working environment to the one they can expect with DND. This entails (but is not limited to) working conditions such as a smoke free, harassment free, etc. environment.”³⁴

The military member will receive technical direction (and some training) for the performance of their static functions from the contractor while all administration and military training remains the purview of the existing chain of command.

Why embed? The reason for embedding soldiers/sailors and airmen is to provide static employment for those individuals when not deployed, thus maintaining among other objectives the ship to shore ratio and technical competence. The added benefits of embedding soldiers are:

- Exposure to commercial best practices and leading logistics technology;
- Civilian Accreditation for military members; and
- Opportunities for specific supply chain training not available through DND.

2.3.2 Who does it impact?

Who is likely to be embedded? Primarily, the Core positions were to be embedded and the Non-Core were to be eliminated; however it was ascertained that some of the Non-Core were required to ensure the proper ship-to-shore personnel ratios. Non-Core positions are annotated MER (Military Essential Required) and MNE (Military Non-Essential). It is useful to note at this point that there is concern as to how positions came to be identified under the MOS Review as core or non-core; there appears to be no clear reason. The MOS Review developed the support personnel requirement for the CF based on the missions published in the 1994 White Paper and their derived Contingency Plans.

³⁴ Canada, *Department of National Defence Supply Chain Project – Request for Proposal (700ZZ.W0159-0-AA01/C)* (Ottawa, Department of National Defence, 1999), Annex F p 2.

As originally stated, Colonel Morton (DGMRS), assigned the task of identifying a process whereby essential military support personnel could be embedded in outsourcing contracts in a cost effective manner, while at the same time ensuring they received the necessary training, experience, motivation, leadership opportunities and military ethos necessary for their successful performance in operations. Under the VCDS guidance three options for employing military personnel in ASD solutions were arrived at:

- Exempting them from the contract altogether and continuing to perform those functions in-house;
- Embedding them in the contract in structured military teams; and
- Embedding them as individuals in to or with the contractor.³⁵

DND has considered the idea of embedding military personnel into the day-to-day operations of Alternate Service Delivery (ASD) contractors as a viable option. It has been decided that this option will ensure that sufficient trained military personnel of all classifications and trades are available to meet deployment commitments and the Defence Planning Guide (DPG) 2000 mandate.

Embedding does not have a long history within the Department nor with the military community at large. It is for this reason that special attention must be paid to ensure that both the client community and the service provider remain focused on two critical issues:

- Uninterrupted support to operations; and
- Maintenance of the “social contract” with members of the CF.

The Defence Management Committee (DMC) directed that ASD reviews for the Supply Chain Project and the Site Support Services Review (SSSR) on a number of bases (initially all land forces bases) be completed. The result was that if all the activity included as part of these two projects were to be contracted out, there may not be sufficient positions remaining to keep personnel trained and gainfully employed. Rather than cease the ASD reviews, the respective project offices sought viable employment options. Options included those that would see the integration of the ASD process with the requirement to provide meaningful employment for those military personnel who currently provide the services that are being considered for contracting out. All three Environmental staffs have extensively investigated the proposal to embed military personnel into the ASD contractor's organization so as to preserve military positions to maintain operational integrity and flexibility.

The common reaction to the proposal of embedding military personnel into an ASD contract is a negative one, in that it would result in the loss of personnel deployment flexibility (UN taskings, ACSSS/AFSC, NMSC/JSG). In short, the program change is intended to maintain

³⁵ Director General Management Review Services Letter 1959-31 (DGMRS) dated 10 July 98.

flexibility, but would result in the embedding of individuals in fixed and narrowly defined activities, with the broader more general activities being contracted out. As well, the narrow definition of classifications and occupations that would remain as hard military positions would severely limit the individual's mobility in terms of posting alternatives, which from a human resources management perspective would all but guarantee that individuals remain within a very restrictive career path. Notwithstanding these self-evident negative results of contracting out in order to achieve streamlining and cost savings, DND remains under fiscal pressures and the DMC must consider all possible sources of potential savings. These savings were promised in both the SCP and the SSSR. Unfortunately, all too often it is a perception that the protection of the military deployment capability as well as responsible and compassionate human resource management, is seen as paramount, but second to identifying savings.

The Navy and Army already have a distinct advantage over the Air Force, as they already have deployable second line formations (Service Battalions and Auxiliary Oil Replenishment Ships - AORs), which are separate and recognized as core elements or units. The AORs and Service Battalions have existed for years, and their operational role has been proven again and again. The Army has recently streamlined the Service Battalions for combat support, creating Land Force Areas Headquarters and establishing Area Support Units (ASUs) that have replaced the old base concept, along with General Support (GS) and Combat Support (CS) Battalions. (The re-organization of the Army has seen actual savings realized; however it is assumed that the savings would have been seen anyway as a by-product of any re-organization given present fiscal realities.)

It is accepted as an operational necessity that military support personnel are the basis of support for all types of deployment. The Air Force could learn a valuable lesson from the Army's formation of the AS/GS/CS Battalions. The Army has established, trained, and maintains fully staffed units whose sole function is to support deployed operations.

In the last series of manpower cuts, the environments finished cutting as much as possible from the organization; they are now into deleting positions that are assigned operational roles. It might be better to reduce the size of support units, properly staff them, and stop cutting away positions in a piecemeal fashion. But this undertaking will have to wait given the present position of high profile ASD projects and the unknown function of embedding. The Minister of National Defence and the Assistant Deputy Minister Material (ADM Mat) have endorsed the ASD projects.

Embedding is a key component to the success of any ASD project and it must be done right. The interest of the CF and its members must be paramount and soundly addressed. Embedding stories abound with positive and negative aspects of experiences; however, wishing it away will not do; it is coming so we must be prepared. Overall, the concept of embedding military personnel within ASD contracts is seen as extremely problematic and noteworthy of consideration for large-scale use. Simply put, embedding deployable personnel is seen as putting at risk the military and professional skills of our workforce, an inhibitor to the development and

demonstration of leadership skills by our NCMs and compromising unit cohesiveness. Among the issues is the impression that the CF/DND is becoming less military and more civilian.

As mentioned, embedding is key to any project management office considering ASD initiatives. Those who have had experience with the embedding of personnel into an outside operation possess rather strong views as to the downside of parking our members in the midst of contractor operations. More to the point, they have seen the environment as absolutely corrosive to the ethos, identity and esprit de corps, of the military trades when members are sent to unpleasant jobs in remote places. Simply put, it is felt that embedding deployable personnel would place at risk the military and professional skills of our workforce, inhibit the development and demonstration of leadership skills by our NCMs, and compromise unit cohesiveness.

The subject of embedding generated a number of commentary letters, memorandums, and e-mails from all levels. The Environmental representatives grouped the primary concerns into four areas: support to operations, force generation/training, military ethos, and establishments. The minor concerns, which will not be addressed in this format, are listed at Appendix A. A sense of uneasiness remains within the CF as to whether these concerns can be properly addressed when a contract is negotiated. The ASD Practice Note, promulgated by the Chief of Review Services (CRS), was to have provided positive guidance for embedding personnel. However, it does not any direction with respect to the 'care and feeding' of embedded personnel; in fact, any potential direction in the document commences with the word "should".³⁶ These concerns need to be addressed if we are to ensure that 'support units' properly look after our personnel and not be made victims of future cutbacks. In addition, 'minor' points on that matter should also be given consideration.

2.3.3 Concerns

All three Environments surveyed their affected personnel to learn what the thoughts were at the operational and tactical level. Discussion at all levels ensued on the subject of embedding and the concerns that it brings. The primary concerns included:

- Support to Operations;
- Force Generation/Training;
- Military Ethos; and
- Establishment.

Minor concerns included, but were not limited to, the following:

³⁶ Canada, *ASD Practice Note No.2 – Guidance when Embedding Military Personnel in ASD* (Ottawa: Chief of Review Services, 1998).

- a. OPERATIONS;
- b. TRAINING;
- c. MILITARY COMMITMENTS;
- d. QUALITY OF LIFE;
- e. LESSONS LEARNED FROM PREVIOUS EXPERIENCES (QAR, BOSNIA, ETC);
- f. MISCELLANEOUS CONCERNS/QUESTIONS.
 - (1) Support and training for the officer corps.
 - (2) Competency
 - (3) Mission requirements
 - (4) Impact Analysis
 - (5) Compensation
 - (6) Strike situations
 - (7) Liability
 - (a) Medical Liability
 - (b) Legal Liability
 - (8) Friction points.³⁷

(A complete listing and discussion of these concerns is at Appendix A.)

The Air Force, like the other two environments, harbours specific concerns with embedding military personnel in a contractor organization under ASD. The three primary concerns include: impact on the ability to deploy on short notice with the proper skill-sets, unit cohesiveness, and the potential attrition rate of military personnel to work for the contractor directly.³⁸ The Army's major concerns centred on lack of planning, command and control, and chain of command. Though not discussed in this section there are three possible solutions that the Air Force may consider to counteract some of the above concerns. The Air Force could increase the number of 'mobile' positions to include the proper skill sets and MOCs; or could embed formed units that could foster esprit de corps and discipline among its members for deployments together; or could keep three wings totally military without contracted support to hold and train military members.

For the purpose of the argument and ease of discussion, the aforementioned concerns have been incorporated into one of three groups: Command and Control (including support to operations, force generation, military ethos, and establishment), Terms of Work/ Work Routine, and Training and Job Specifications.

³⁷ Environmental Working Group August 2001, op cit.

³⁸ Environmental Working Group August 2001, op cit., Air Force/A4 Supply brief.

2.4 Principles and Conditions

2.4.1 Principles of Embedding

Within the defence department there remains great scepticism regarding the practicality of the embedding process. It has yet to be successfully accomplished with large numbers of military personnel, beyond the one or two military personnel deployed with civilian contractors as part of the Quality Assurance Representatives (QAR) staffs. It is believed that embedding will provide the military member with professional growth opportunities, in that they will be exposed to commercial supply methods and new technology and its applications. The CF is faced with little choice in the matter: either embed military members with companies as part of ASD, or lose them, as companies entice service members away and 'embed' them in their organizations.

In August 2001, Logistics staffs from all three Environmental Chiefs of Staffs met to discuss, among other items, and their individual concerns on the matter of embedding. At this meeting, the principles for embedding were agreed to by all three environmental representatives. Common principles for embedding are critical to the success of embedding military personnel. These common principles have been identified as follows: providing equal or better levels of service; meeting geographical imperatives of the environment for support (i.e. one centralized supply section to service all of Western Canada is unacceptable because it does not correspond to where we are located and the customers who require our support.); availability of embedded personnel 24/7 for deployment in support of either domestic or international operations; a clearly delineated chain of command, responsible for all personnel, whether embedded or not; embedding structures that ensure optimal operational support is provided at all times; respect for all FAA rules and regulations; and, the establishment of common employment guidelines for embedded personnel to ensure that their rights, benefits and quality of life are safeguarded. In addition, the principles of embedding must be blended with the principles of logistics, namely foresight, economy, simplicity, cooperation, and flexibility, to achieve the functions required to successfully meet the aim of embedding military personnel into contractor organization.³⁹

2.4.1.1 Command and Control

The establishment of a command and control Chain of Command for embedded personnel is essential. According to the Land Forces CFP 300(3) Command manual there are two traditional views of command and control:

- The first sees command as the authority vested in commanders and control as the means by which they exercise that authority.
- The second sees command as the act of deciding and control as the process of implementing that decision.

³⁹ Environmental Working Group August 2001, op cit.

These views are compatible in that they both view *command and control* as operating in the same direction: from the top of the organization toward the bottom. To achieve control, the commander and his staff employ a common doctrine and philosophy for command and use standardized procedures (including staff work) in conjunction with the equipment, communications and information systems available. Command and control are thus closely linked, with commanders and staffs requiring a knowledge and understanding of both, if they are to perform their duties effectively. Command and control are not equal partners. Control is merely one aspect of command.⁴⁰

The enforcement of a military Chain of Command, including a Commanding Officer (CO), embedded with military members, will not be without potential for conflict with the contractor and DND. However, the Chain of Command and the Contractor must work closely together if the embedding concept is to be successful. Embedded personnel will be assigned to an existing or created unit will have a military CO. The Chain of Command will have certain responsibilities for the embedded personnel that the contractor cannot undertake, such as support to operations, force generation, military ethos, career management, disciplinary action, and administration of a military paperwork. In order to ensure that embedded personnel are well looked after, both military and contractor chains of command must have a good professional working relationship. During the initial months of an ASD project, the military must serve as a knowledge source and facilitative partner for the contractor to ensure that the contractor acquires a knowledge of the military customer and an understanding of DND rules and regulations. The contractor, as the new supervisor of embedded staff, must also take the opportunity to understand the value of the military staff. The timely passage of information will greatly assist the contractor in meeting DND requirements and for DND to respond to contractor driven changes in the manner in which service is provided. Regular meetings between the contractor and the military chain of command will be crucial in the passage of information and the resolution of misunderstandings. The contractor and the military chain of command must ensure that they keep each other informed on all matters affecting embedded personnel.

Another of the working groups concerns was the location of the CO relative to embedded personnel. The CO should be located in the area of the contractor to deal with contracting issues and DND policy issues and military member discipline. The CO will not functionally task embedded military members; that is the responsibility of the contractor. The CO will, however, ensure that the contractor has the agreed upon personnel resources, in terms of embedded military members, to fulfill the contract, and will ensure that all aspects of military life for these members are reinforced. Military life includes professional development, secondary duties, dress and deportment, and administrative details such as those listed at Appendix A. Basically, the CO must address the personnel management of the troops and readiness for operational deployment. Dispersal of military personnel under a decentralized command and control system is possible within the current hierarchical structure, but the organization must be well delineated.

⁴⁰ Canada, Department of National Defence, *Land Forces Command Manual (CFP 300(3))* (Ottawa: Queen's Printers, 1996), pp 6-7.

As stated in the Principles for Embedding, personnel must be readily available for deployment. Essentially, the contractor must have contingency plans in place to replace the embedded personnel if the operational tempo so dictates. The method for deploying embedded personnel will form part of any Final Contractual Framework. Embedded personnel may need to be deployed under many different circumstances. Domestic and international operations and taskings must be considered and the authority to deploy embedded personnel will be vested in the CO. The contractor's site manager will be informed of the requirement as soon as known. Collective military training and exercises will have to be forecasted ahead of time in the annual Business Plan and Unit training plans, and it is the contractor's responsibility to facilitate this military training. The CO will advise the contractor's site manager of the commitment a reasonable period of time prior to the commencement of any training or exercise as outlined in the framework. Other career courses and individual training programs that are controlled by the Career Manager and managed at the local level by the Senior Services Technician (supply, transport, etc) must also be considered. The Senior Services Technician must advise the contractor Site HR manager of the embedded personnel's training program and expected absences. The contractor cannot refuse the military member attendance on any career course and must respect the military culture of duties, parades and other military traditions and obligations. These are an essential element and function of military life and foster a sense of belonging and esprit de corps.

No one structure can be designed to respond to the embedding question; however there are common concepts as to how an embedding model can be developed. The first factor to consider is the contractor's concept for organization of the site. The contractor may not wish to replace the existing organization, only add complimentary management staff to it, which could include an operations manager who may be responsible for more than one site. One must consider that the CF has only small and large bases, so when considering a small base with only eight or ten persons, establishing only an operations manager makes sense. The more complex model involves the large bases, where the embedding is likely to take place.

There will always be differences between the environments with respect to the model developed, based on the operational function of a site and the number/rank of personnel at the site. Regardless, certain guidelines are applicable to all environments:

- Any rank associated with the service to be outsourced can be embedded;
- Operational functions that have no corresponding function will not be embedded;
- Functions that support the operational purpose of a unit, such as admin clerks, Ops and Training (military only) sections may or may not be embedded depending on the size of the unit and the tolerance for embedding functions that support an operational role;
- With respect to any procurement services being outsourced, in accordance with the FAA, contractors are not permitted access to FMAS, therefore, the function of

FMAS data entry such as that performed by the Invoice Clerk in Supply Sections must remain a DND function and cannot therefore be embedded (at this time unless so specified by Treasury Board); and

- A clearly identified military chain of command must remain in place, as previously mentioned in this overall section.

Based on the above guidelines, generic models can be developed for some sites, given their particular environment; however, it is safe to assume at this time that site-specific models should be developed.

2.4.2 Terms of Work and Work Routine

A great deal of discussion regarding the type of employment that will be provided through embedded positions concerns its effectiveness in preparing Officers and NCM for operational roles. There will be positions created within the contractor facilities for officers; however, present projects reveal that the “embedded ranks would most likely be Lieutenants and Captains. This is the same way that Resident Officers oversee and inspect work on warships at commercially contracted shipyards. The more senior personnel would typically be employed in military planning, contract management or other staff functions.”⁴¹ The skills that junior officers will learn in embedded positions will be related to management of commercial facilities and a civilian work force; these skills will not easily be transferred to operational employment. The majority of NCMs will be of the corporal rank, as the contractor may not readily accept military supervisors. These junior ranks have greater need for the military environment at this early stage in their careers and could be negatively impacted by the lack of military development. Notwithstanding this likely negative impact, large scale embedding presents a great potential savings that is shifting a self-contained unit to a leased contractor’s site without all the associated infrastructure and administrative costs that a normal unit requires. However, establishment of appropriate positions for rank progression must be part of the contractor’s embedded positions. At present, the supervisory ranks of Sergeant and Warrant Officer are not found in sufficient numbers in line and staff functions. Historically the required skill sets for these rank levels were acquired in static units rather than in field units, where there was flexibility to create the hierarchy required. Contractors appear to be willing to accept military supervisors that have the necessary skills and qualifications for the particular position, despite the fact that contractors feel that the CF has too many levels of supervisors. The levels in the military rank structure are a function of the field operational structure not the static structure. Consequently, the contractor must respect the need for these layers in the structure, to serve the military field operational needs, to ensure training opportunities for supervisors and to provide static deployment at all rank levels. The burden to train these individuals should not fall on the overtasked operational units, as they too will require qualified supervisors to be operationally focused.

⁴¹ SCP, FAQ.

The establishment of policies to allow for absences from the contractor’s work force for training and operational deployments is an essential element of any contract. These must be resolved in the initial stages of contract development.⁴² The potential for the unpredictability of this part of the contractor’s work force to cause additional costs for back-fill labour or non-performance by the contractor are unknown.⁴³ The CF compensates the company for lost time and/or backfills. Basic guidelines regarding terms of work and associated work routines are outlined in the chart below.

Element	Item	Rating
Terms of Work – CF Members	Will be members of the Canadian Forces as defined in Queen’s Regulations & Orders (QR&Os) Volume 1 (Chapter 1, Section 1.02).	E
	Will continue to be subject to the National Defence Act (NDA), and the regulations and provisions/entitlements contained in QR&Os and Canadian Forces Administration Orders (CFAOs)/Defence Administration Orders and Directives (DAODs).	E
	Will remain the employees of DND/CF. As such; their availability to perform service functions will be impacted by the existing terms and conditions of their military employment (operational requirements, leave, education, training requirements etc...).	E
	Will be subject to recall by DND/CF in support of military activities such as operations, taskings, and training.	E
	Will have a designated CF Support Unit (CFSU) who is responsible for all HR administration, including pay, claims and health care.	E
	Will have a clearly defined chain of command with a designated commanding officer that is ultimately responsible for their discipline and well-being. The Commanding Officer may or may not be co-located with embedded personnel but his administrative responsibility for the embedded personnel (administration, discipline and performance) is clear.	E
	Embedded personnel tasked on operations, support to training or absent due to maternity or sick leave will be backfilled by the contractor without DND approval for the backfill. The contractor may ask DND for backfill due to op tempo.	E
	Will not perform or agree to undertake any work, which does not directly support CF operations.	I
	CF members may not seek civilian employment with the contractor whilst serving an obligatory period of service. The contractor is bound contractually not to actively recruit serving military members. Military members retain their current right to seek employment as they wish on retirement from the service.	I

⁴² Embedding Working Group, pp A5-24.

⁴³ Embedding Working Group 21 August 2001.

	Will be employed in the language of business as directed by CFAO 2-15 Official Languages	E
	Will be allowed to participate in representational teams and inter-section sports on the approval and recommendation of the chain of command, in consultation with the contractor.	I/N
	May not be paid a performance bonus, however they may be accept tokens of appreciation from the contractor that are in line with QR&Os on the acceptance of gifts. The contractor may develop a system of gratuity in lieu of performance bonuses.	N
Terms of Work - Contractor	The contractor shall exercise due diligence with regards to liability issued regarding military embedded personnel.	I

Rating Scale: E – Essential
I – Important
N – Negotiated

The CF/DND and contractor will each have certain liabilities with respect to the embedded military members. The specifics of these liabilities will be covered in the Contractual Framework; however, they will clearly state the liabilities where:

- A military member is injured due to his actions, those of another military member or a contractor’s employee – Worker’s Compensation;
- A military member causes property or equipment damage to contractor facilities and equipment due to his actions – Negligence; and
- Damage to DND property or equipment is caused by a contractor employee.

Work routines and working conditions will vary from situation to situation and from contractor to contractor, depending on the services to be provided. With respect to the Lessons Learned from the Balkan Rationalization Project (CSP), ‘embedded’ soldiers compared themselves with their civilian co-workers and often resented the perceived preferential or differential treatment ATCO Frontec contractor civilians received at the hands of the contractor, this was briefed to the J4 for his resolution, but the feelings still continue.⁴⁴ Differential treatment constituted one of the key issues for the Balkan Project, identified to NDHQ/DCDS, along with military/civilian integration, maintenance of military discipline, and personnel management.⁴⁵ However, some basic guidelines that should be regarded remain and are highlighted in the chart below.

⁴⁴ Gervais, Colonel M. *The National Support Capability Project*. Winnipeg: A4 Logistics Conference, 20 April 2001.

⁴⁵ Ibid., and the 26 April 2002 A4 Logistics Conference Brief.

Element	Item	Rating
Basic Guidelines – CF Embedded Members	Will be available to perform stated functions for an agreed amount of hours per year per person in Contractor Operated Facilities. Embedded personnel will work Monday to Friday inclusive (known as Core Working Hours). Members shall, as far as practical work no more than eight (8) hours per working day such hours to be worked between the hours of 7:30 am and 6:30 pm.	E
	Shall be entitled to a meal break of not less than thirty (30) minutes and not more than one (1) hour which is to be included as part of the eight (8) hour working day. Additionally, members shall be entitled to two fifteen (15) minute coffee breaks per day which is to be included as part of the eight (8) hour working day. Where personnel work overtime including any overtime worked on a weekend or public holiday the above same conditions of work shall apply. Conditions for compensation of overtime work will be discussed and negotiated within the confines of the contract.	I
	Are not to work in excess of the core working hours per week when averaged out over a period of 20 working days. In the event that time in excess of the core working hours is worked, the member shall be entitled to Compensatory Time Off (CTO) for the excess hours. CTO is calculated on the basis of one (1) hour off for each hour worked in excess of the core working hours	I/N
	CF Members will be required to perform secondary duties as assigned by the Chain of Command. The contractor will be advised of the duties assigned. CF members may volunteer for secondary duties proposed by the contractor these duties will be approved by the chain of command.	I/N
	Unless otherwise contacted as part of the above mentioned duties, after hours contact will be initiated through the Chain of Command.	I/N
	Will attend CF functions as directed by the military chain of command, who shall duly informed the contractor of the commitment beforehand.	E
	CF members are encouraged to attend contractor sponsored social events should duties permit.	
	Military members will be afforded time for PT during the workday, not to exceed 1hour, with 30 minutes allocated for showers/changing. PT may be performed as a formed unit or on an individual basis.	
Basic Guidelines - Contractor	Responsible for keeping a logbook of hours worked by every embedded person seconded to his organization. The logbook shall be made available to embedded personnel and the CO and shall be reviewed regularly by the contractor. The contractor may consider using an automated time swipe system to track hours worked for contract purposes.	E
	Where embedded personnel are entitled to CTO in lieu, the contractor shall grant such leave in lieu to the entitled to be taken at a time mutually agreed upon by the contractor, the member and the member's CO.	E/I

	In consideration of the member's service conditions, members are required to have time off for participation in military activities, continuation, adventure and operational training, physical fitness training and service administration (pay, records, etc...).	E/I
	<p>As a guide to the Contractor, in addition to entitlements for activities listed above, the QR&Os and CFAOs/DAODs as shall govern embedded personnel's work routine listed below:</p> <ol style="list-style-type: none"> (1) Annual Leave – QR&O 16.14; (2) Sick Leave – CFAO 16-1; (3) Compassionate Leave – QR&O 16.17; (4) Leave Without Pay (LWOP) – QR&O 16.25; (5) Short Leave – CFAO 16-1; (6) Special Leave – QR&O 16.20; (7) Rehabilitation Leave – CFAO 204-10; (8) Retirement Leave – QR&O 16.18; (9) Weekends and Public Holidays – CFAO 16-1; and (10) Maternity/Parental Leave – QR&O 16.26. 	
	All leave shall be approved and processed by the military chain of command in consultation with the contractor. The contractor will be informed before the leave pass is passed for final approval to Chain of Command. Requests to absent oneself from the place of duty due to medical/dental/administrative appointments or family commitments shall continue to be approved by the immediate supervisor.	E

Working conditions and facilities are also of concern and should be clearly outlined in the contract so as to ensure that the contractor is aware of what is expected. CF members are required to wear dress of the day to undertake their duties unless otherwise ordered, as members remain subject to CF Dress Regulations. CF members must also wear personal protective equipment (PPE) as required under the Canada Labour Code Part II. The CF/DND is responsible for providing the PPE. The contractor shall provide any personal tools or equipment required by embedded personnel in accordance with working conditions in the contractor's organization.

The contractor will be responsible for providing non-consumable safety equipment to embedded personnel for their use during the period of time they are embedded; although safety boots and personal issue clothing remains the responsibility of DND. Also in accordance with federal regulations regarding the no smoking policy in any public buildings, the contractor must provide a designated smoking area to employees in the vicinity of the facilities. The contractor must provide a harassment free work environment for employees and a safe working environment for embedded personnel working in contractor operated facilities in accordance with the applicable provincial and federal laws (Canada Labour Code Pt II). The contractor shall agree to use the DND General Safety Program, be liable for any personal or property loss or

injuries arising out of non-compliance with this clause, and in the event that differences or conflicts arise between legislation, regulations or safety standards that apply to the control or work being done, the more stringent provisions will be applied and enforced.

Work facilities will not change from those currently being utilized. Should the contractor locate military personnel in a location independent of any military base, the contractor and DND will be responsible to provide access to similar facilities, services and benefits as found on a military base. The contractor will provide kit lockers where already in place and be liable for the military kit stored in the lockers as covered in the Final Contractual Framework. Equally important, the contractor will provide access to recreational facilities and lunchroom facilities, where currently available and access to the Defence Wide Area Network (DWAN), military newspaper and journals, Routine Orders and other communications currently in place.

2.4.3 Training and Job Specifications

Training (MOC, Integrated Occupation Specifications, Outside Certifications, etc) and operations (UN, NATO, CanCAP, NMSC/JSG, etc) for embedded military personnel should be conducted in consideration of the following (further elaborated in Appendix B):

- Job Specifications;
- Training – military or civilian;
- Course loading – career courses;
- Course loading – non-career courses;
- Operational military training;
- Contractor training; and
- Certifications.

In addition there are aspects of personnel administration (including dispute resolution) and casual employment that must also be mentioned in this section (expanded in Appendix B):

- Personnel Administration;
- Casual Employment; and
- Dispute Resolution.

It is essential to ensure that the training and personnel considerations are included in any discussion or project instrument before proceeding. Contract renegotiation serves neither party. The training and personnel concerns and considerations can be determining factors in the options available to CF/DND when considering ASD initiatives.

2.5 Options and Argument

Previous discussion and reference documentation has led to the presentation of options for embedding. Numerous iterations of the ASD scenarios have been considered within the logistics community with a view to seeking the assistance of external organizations in which to embed military positions. Simply put, the options are:

- Option A – Maintain the Status Quo, do nothing, allow ASD contractors to dictate the disposition of military manpower and accept an inherent reduced military capability;
- Option B - Single Embedding of military personnel; or
- Option C – Mass Embedding of military personnel.

2.5.1 OPTION A

Option A, from a logistics point of view, is unacceptable as day-to-day operations would be adversely affected and deployments in support of future operations would be severely hampered. Based on this information, the operators would not accept the risks associated with this option. Additionally, there is no utility to DND if the contractor only recreates the status quo or that those individuals embedded are not employed judiciously by the contractor. As an industry standard, embedding personnel beyond fifty percent of the contractor's total manpower base would remove any flexibility or cost advantages from the contract and would likely make the contract unworkable.

2.5.2 OPTION B

Option B entails taking one or two military personnel and embedding them into contractor facilities to fill vacancies brought about through ASD activity. Cases may exist where an individual who has a unique skill that cannot be effectively included in a team and as a result it may well be necessary to embed him/her as a single individual. For many military occupations individual embedding might well be inevitable. Embedding one or two military members has decided limitations/drawbacks for military personnel management. A system must be established to ensure that individuals receive military supervision and support. Further, they must remain part of an organized military training program, must retain their military ethos and discipline, and should not be hired away by the contractor. Military management must not compromise the contractor's ability to give job-related direction to the military member. Because of these significant drawbacks, it was determined by the Environmental Working Group that embedding individuals should be avoided where possible, and should be employed only as a measure of last resort when there is no alternative.⁴⁶

⁴⁶ Environmental Working Group August 2001, op cit.

This option is worthy of further exploration.

2.5.3 OPTION C

Option C entails embedding military personnel in units/groups, already formed or to be formed. To provide cost-effectiveness, positions on each site should be grouped to form teams; position grouping should be a collective effort between the Environment, ASD PMO, and possibly the contractor. It was noted by Colonel Morton in his review that “the tendency will be to create unduly large teams organized by occupation, rather than small, multi-skilled teams that can fill various functional roles. This will be especially so if the operational requirement is developed in the traditional military style of creating companies and platoons largely of the same skill set, then organizing them by task to suit the operational conditions. There is no doubt that retaining large groups of similar trades does have decided military advantages in garrisons or static wing locations for morale, discipline and training, but a contractor will not employ them that way.”⁴⁷ The contractor may choose to organize his work force into the smallest possible work unit. Thus, it is often more cost-effective to create smaller work units on remote sites rather than a large team on a single site. Ideally, a work unit should only comprise the most essential elements and should not outnumber contract personnel if the contractor is to optimize his efficiency.⁴⁸ This would offer DND the advantage of providing some capacity for employing essential military tradesmen, but would also allow the contractor needed flexibility to adjust his work force to suit a varying workload and to provide a cadre around which to build replacement workers.⁴⁹ DND must recognize, however, that any embedded work unit comes under the contractor’s functional control and that some current DND work practices may need to change to match the quality and quantity demands of the contractor’s overall process. In addition, industry has stated that an appropriately qualified and experienced military supervisor could be embedded in a contractor’s organization as long as he was prepared to take overall direction on contract-related matters.⁵⁰ Therefore embedding a military work unit is not the same as exempting that unit from an outsourcing contract. In the final analysis, the solution must ensure that the contracting process does not pre-empt operational requirements. This option is also worthy of further exploration

⁴⁷ Colonel Morton for the Director General Management & Renewal Services, “*Management & Renewal Services: Embedding Military Personnel in Outsourcing Contracts*” (Ottawa: Department of National Defence, 1998), pp 5-6.

⁴⁸ If the embedded military personnel make up the majority of the contractor’s work force, it begs the questions: who is really delivering the service and what was the advantage of contracting in the first place? An Australian Defence Force Study recommends that the military component be no more than 30% in such situations.

⁴⁹ By contrast, the Australian Defence Force seems to favour concentrating all the military manpower on a relatively few sites to better protect military ethos.

⁵⁰ Response by members of the service industry to DGMRS letter of 28 Feb 1998.

Pros/Cons – Option B

Option B – Single/Individual	Pros	Cons
Command and Control	<ul style="list-style-type: none"> • Single individual to administer 	<ul style="list-style-type: none"> • A multitude of single entities that will increase the span of control within the chain • No military support, i.e. MFRC • Time it takes to address an issue • Information flow be may slow
Terms of Work & Work Routine	<ul style="list-style-type: none"> • Single individual to replace when deployed 	<ul style="list-style-type: none"> • Person might be highly skilled and difficult to replace
Training and Job Specifications	<ul style="list-style-type: none"> • Easy to fill • Specialized skill • Limited cross-training opportunities 	<ul style="list-style-type: none"> • Individual may not receive the training required • Classification and trades training might be missed due to lack of coordination
Risks – Development	<ul style="list-style-type: none"> • Single training 	<ul style="list-style-type: none"> • Single costs. • Individuals may not get the appropriate training supervisory opportunities to learn and advance. • Re-socialization • Tour lengths may impact on trade development • Merit Board implications

<p>Risks – Military Ethos</p>	<ul style="list-style-type: none"> • Only one individual to instil the ethos in 	<ul style="list-style-type: none"> • No one to learn from • Isolation of junior personnel from seniors for mentoring • Individual becomes one of the ‘civilian’ employees • Divided loyalties could arise
<p>Risks – Loss of ship-to-shore ratio</p>	<ul style="list-style-type: none"> • One individual for the Career Manager to manage 	<ul style="list-style-type: none"> • Training may not be what is required and the individual is not deployable

Pros/Cons - Option C

Option C Mass or Team/Unit	Pros	Cons
Command and Control	<ul style="list-style-type: none"> • Teams organized by occupation or skills level • Span of control decreases. • Easier establishment management • Easier to facilitate a handover • Information flow 	<ul style="list-style-type: none"> • Large teams vs. small multi-skilled • Specialization • Control factors
Terms of Work & Work Routine	<ul style="list-style-type: none"> • Morale, discipline and training creates group dynamic • Potential for surplus personnel 	<ul style="list-style-type: none"> • Difficult to replace team when deployed, may cost DND to backfill
Training and Job Specifications	<ul style="list-style-type: none"> • Persons training peers • Readiness levels may increase • Certification • Exposure to civilian practices and methods • Rotation of personnel within the contractor for cross-training 	<ul style="list-style-type: none"> • Concentration of one or two skill sets only • Many skills to certify • Rotation of personnel to maintain current skills may be impeded • No management training if management not embedded
Risks – Development	<ul style="list-style-type: none"> • Greater opportunities to develop in various areas, including supervisory positions • Socialization 	<ul style="list-style-type: none"> • Team is left to ‘develop’ on its own and the herd mentality takes over. • Tour lengths may impact on trade development
Risks – Military Ethos	<ul style="list-style-type: none"> • Concentration in one location best protects military ethos 	<ul style="list-style-type: none"> • Other dynamics take over and the group becomes ‘civilianized’ • Divided loyalties could arise

Risks – Loss of ship-to-shore ratio	<ul style="list-style-type: none"> • Greater ability to train for deployment and manage the individuals required 	<ul style="list-style-type: none"> • Loss of individuals due to restrictions
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Additional points to research: availability, employment according to skills, command responsibilities, day-to-day C2, liability, accreditation, professional designations, and secondments.

Risks

The major risks associated with embedding personnel are:

- Development of an officer corps. The mentorship of junior officers by senior officers will no longer exist in the embedding concept, as technical direction will be provided by a civilian manager. This will create a leadership vacuum in the future whereby a young officer has been indoctrinated with a “bottom line” mentality instead of an “at all costs” attitude for accomplishing the support of operational commanders.
- Maintenance of Military Ethos. While civilian best practices could provide fiscal benefits to DND’s coffers they will do little to instil in our soldier/sailor/airman the “service second to none” ethos that has given us a world wide reputation for “canuck can do”.
- Loss of ship-to-shore ratio. Personnel are not currently managed by core/non-core positions for taskings, postings, or due to medical restrictions. Loss of the non-core positions will severely handicap the flexibility the system had to meet these requirements up to now.

2.5.4 Discussion Argument Pros/Cons Option B versus Option C

Although there are benefits and disadvantages to both Option B and Option C, it is argued that Option C, that is, embedding of larger units of military members, is the preferred option for the CF/DND. This option allows for the maintenance of a greater proportion of a military hierarchy and rank structure, the existence of which is essential for field operations. To embed individual members could be of advantage to the contractor, but not necessarily so, as the contractor would not benefit from the inherent expertise and operational experience of senior ranks who would be deployed under Option B.

Under Option B, that is, embedding individual members, the risks to the quality of service life for the affected member are higher, and this is not acceptable. The sense of team and family within the military is an essential element of development of an esprit de corps and

military ethos. It is not sufficient to merely focus on a military member's professional or occupational development. Although important, that is only one facet of the life of a military member. An effective military force depends on the camaraderie and awareness of one's role in the larger force in the achievement of any mission. If junior NCMs were to be deployed without daily contact with others of similar rank and senior NCMs, it would be difficult to instill in the individual military member the sense of belonging within its home organization. The *esprit de corps* is built and maintained through 'work and play' activities within a unit. Daily contact in a 'work' environment builds professional respect and individuals learn from the skills and experiences of their peers and superiors. Daily contact in a 'play' environment, such as unit team sports programs, intra and inter section and base leagues and competitions (hockey, softball, curling, and broom ball) have always been an essential element of military life. Although these have become more difficult to maintain in the modern day military, with less and less time devoted to unit activities, to eliminate this altogether for junior NCMs would significantly undermine the mechanisms available to build *esprit de corps*.

As well, the burden placed on leaders to initiate and maintain a supervisory and support relationship with subordinates embedded individually or in small detachments, would be unmanageable. COs of supply or transport units are currently responsible for on average of seventy subordinates. Effective leadership and management of a unit of that size is only possible with a functioning chain of command, and regular, meaningful contact. Normal workplace activities such as unit meetings, parades, promotion events and more personal events such as birthdays, baby showers, marriages, and illness of unit members or their families, serve to build the camaraderie and personal relationships necessary for a team. Coordinating the attendance to such function of individually embedded military members, while respecting the contractor's delivery schedule, for many different contractors, would be impractical. Ultimately the junior military member would suffer, through ever decreasing direct and psychological association with his military unit.

It is strongly held that the aim of ASD should serve to uphold, where practical, the objectives of the military ethos, and not further undermine the *esprit de corps* of any military organization. Although military members will no doubt benefit in an occupational skill set level through their intimate association with civilian contractors, the multi-dimensional elements of military life (it is not merely a job) must be ensured.

SECTION 3 – CONCLUSION

“The final deciding factor of all engagements, battles and wars is the morale of the opposing forces. Better weapons, better food, and superiority in numbers will influence morale, but it is a sheer determination to win, by whomever or whatever inspired, that counts in the end. Fine feathers may make fine birds, but fine battleships do not necessarily make fine sailors...Study men and their morale always.”

- General Sir Archibald Wavell⁵¹

The VCDS has stated that each of the Services will be responsible for implementing ASD initiatives within their own environment. Thus, embedding is a reality that must be faced without delay. Heretofore, the Environments have been only too happy to cooperate with inputs and working groups on the subject, process, and mechanism of what they envision embedding to be for their particular circumstance. Much of what will happen is common to all three environments. The three primary reasons which support the CF’s usage of embedding relate to the need for military positions in static, non-deployable units. For many years, the CF has rotated military personnel between deployable operational units, such as ships, brigades/regiments, and air squadrons, and static support activities, such as Wings/Bases/Ships, second or third-line maintenance facilities, and training schools. Rotation is done largely to relieve the stress of operational tours and is essential for any work/life balance of military personnel. The 1997 CF Military Occupational Structure (MOS) Review quantified the ideal ship-to-shore ratio of 3:2 for sailors, and 4:1 field-to-garrison for other members.⁵² Secondly, there is a requirement to identify incremental staff deployable National Level Units (NLU), and military positions must be maintained in static activities to provide meaningful employment for NLU-earmarked personnel during those periods between mobilizations. Finally, CF Military Occupations (MOC) are organized into rank hierarchies, and often there are insufficient billets in the cluster of purely operational units to ensure a viable MOC rank structure. Traditionally, this problem has been addressed through billets at support establishments.

Outsourcing and ASD have become viable options for a great number of static activities; however, it was these static activities which provided the shore/garrison billets and which are now either decreased or eliminated altogether. It has become necessary to embed a certain number of military positions to ensure that service personnel have gainful employment between operational tours, performing duties that are generally suitable to their rank and MOC. Embedding does not necessarily work well with constantly moving workers or troops. As an added advantage, military personnel employed at a contractor site may learn better ways of operating, including new information technology applications that could be used in other areas by the CF. Exposure to civilian logistics practices would enrich the careers of the embedded

⁵¹ Field Marshall Wavell, *Generals and Generalship* (Middlesex: Penguin Books, 1939), p 12.

⁵² Canada, *ASD Practice Note No.2 – Guidance when Embedding Military Personnel in ASD* (Ottawa: Chief of Review Services, 1998), pp 2-4.

individuals and expand the knowledge base of the entire Department, as long as embedding was for a fixed period of time.

While it is hoped that the process for embedding will succeed, it is imperative that regular inspections and reviews of the embedding process occur, it must be one of the key contract oversight/management functions. A regular review of embedding will have to be conducted at all levels to ensure that not only are embedded military personnel looked after, but that the embedding concept continues to meet the principles of embedding, the objectives for embedding, as well as CF/DND's requirements. Part of the measurement of whether the CF has "got it right" should be attained from annual surveys administered jointly by CF/DND and the contractor, which would highlight the embedded member's impressions and satisfaction with the concept. The survey should be developed in concert with the PMO, the Career Managers, the contractors, and Subject Matter Experts (SMEs).

As difficult as ASD has been to date, the next phase of developing a process mechanism will be just as intense. Before ceding or committing to any ASD initiative, described mandate or project, the Environments should take the following into consideration.

3.1 Flexibility Maintenance as a DND Requirement

The CF/DND's current "can do" attitude of meeting operational requirements will be restricted by the process of embedding personnel, even when the service is stretched to the limit. It must be determined where that cut off line is and there must be a definite policy developed as to if and when it will say no to a tasking. The benefits of embedding will not be accrued if those remaining in "military essential" positions on Wings/Bases/Ships are subjected to an increased demand upon their availability to meet unforecasted operational demands.

3.2 Professional Development and Career Management

Will career managers be loath to post overachievers and 'streamers' to embedded organizations for fear of slowing someone's career or will embedded organizations become a dumping ground for malcontents and those "on the way out"? Embedding should be seen as a means of enhancing an individual member's skill sets, practices, and providing professional accreditation by exposing the individual to industry best practices and innovative advancing technology. However, there is a legitimate concern among those likely to be embedded that their careers will suffer as they fall into an organization that is outside the military family and that merit boards will not be properly briefed on the aspects of embedded positions. The Environments should not just focus on 'merit' issues but on the impact of professional development, i.e. learning from superiors. There is a natural tendency to better manage careers for those in the forefront rather than for those 'out of sight, out of mind'. A further issue that must also be discussed and addressed is the skill set level or caliber of the individuals to be embedded.

3.3 Social Contract

At present no specific social contract exists between DND and its members; however it is implied that members will assume unlimited liability and the universality of service in exchange for the unwritten assurance that DND will provide for the individual and their families throughout their career of service. The leap to a system where CF members will be exposed and employed in contractor organizations may be viewed as a breach of this contract unless assurances to the contrary can be provided. The sentiment from the field is that DND will be just providing the cheap labour to do the menial or dirty jobs that industry is unable to fill with civilians. DND must provide assurances that this unwritten contract will be respected if grassroots support is to be given to any future initiative; the list of concerns bears out this requirement.

3.4 Critical Mass

The establishment of a critical mass for embedded personnel must be seriously considered. A sense of isolation will be a factor in poor performance if CF personnel believe they have been cast to the wind and are alone in industry (seen with the QAR representatives). This critical mass will ensure the retention of a military ethos and the bond that keeps CF members in. This issue is further exacerbated by the need to ensure that sufficient leadership/management/supervisory personnel are embedded to watch over and support those being embedded on the shop floor by industry.

3.5 Officer/Senior NCO Positions

It must be clearly enunciated just how many supervisory positions will be available to DND within any initiative or contract. These supervisory positions have the potential to reap benefits to DND in two aspects: maintenance of the interpersonal relationship with subordinates, to ensure they feel they remain part of the CF although embedded; and to allow DND to gain experience at the middle management level.

3.6 Skill erosion versus technological innovation

The SCP was marketed as an opportunity to expose logisticians to the innovative tools and practices in vogue within industry.⁵³ However, the level of personnel identified in the SCP, the requirement was for junior personnel to fill low-tech jobs. This had the potential to degrade the military logistics skills of those embedded and deny DND the opportunity to train the junior personnel and expand their opportunities. It was clear that the contractor stood to benefit from SCP as DND would provide free labour, for which there would be little professional

⁵³ Canada. Department of National Defence, "SCP Update", *ADM/Mat PMO SCP* Volume 1-6. Ottawa: Department of National Defence, 2001 (start). Tibbett and Britten Group/Mission Logistics SCP Bid Response – January 31, 2001.

development for the junior member. For this to be viable DND must, therefore, identify the technological innovation and best practices skill set enhancement that the contractor is expected to provide for all embedded personnel.

3.7 Commercial and International Best Practices

Although embedding is cited in the Morton Paper as being practiced, it is clear that the halcyon days of ASD experiments are waning and some of our Allies (Australia, New Zealand, United Kingdom, and the United States) are less than enthused with the process.⁵⁴ Australia, oft cited as the paragon of ASD activity in 1997/98, has since shied away from such activity due to bad experiences. Contractor support during operations in East Timor was limited and a problem for the Australian Force Commander throughout. Both the US and the UK have reduced similar programs and this should act as an indicator that we may be on the wrong track. DND has been slow to move towards ASD and perhaps a thorough comparative review of ASD experience of Allied forces should form part of any study should be considered.

3.8 Final Thoughts

CF/DND has chosen to break new ground by embedding military personnel in a contractor organization on a scale never before attempted by any other defence force. It is not known whether the risks will outweigh the benefits, nor whether the solution is right. While the principles and concepts enunciated in this paper will hopefully contribute to the success of this undertaking it must be remembered that true measure of success will be in how well this concept works in generating efficiency and capability to the armed forces.

As DND moves to fulfill its mandate within the funding envelope ASD will become, out of necessity, the accepted way of doing business. ASD is a government program that has not achieved the predicted results from the perspective of outsourcing non-core tasks to the conduct of operations at home or abroad. DND is presently actively involved in the program; however much has been learned over the past several months with the demise of the highly touted SCP. This project was to have saved the CF approximately \$70-75 million annually through the outsourcing of supply and distribution functions (warehousing, issues, local procurement, disposal, inventory management) on all wings, bases, units, and depots (less ammunition depots). However, the selected RFP contractor could not convincingly demonstrate the Business Case as required by the Project Office. ADM Mat canceled the project. It has been reconstituted as an in-house CF/DND project.

Having to operate within decreasing funding levels has demanded more efficient use of scarce resources, reliance on savings achieved through economies in scale, and reduced operating costs. There is a growing reliance on the commercial/private sector to provide

⁵⁴ Colonel Morton for the Director General Management & Renewal Services, "*Management & Renewal Services: Embedding Military Personnel in Outsourcing Contracts*". Ottawa: Department of National Defence, 1998.

alternate means of service delivery; however the CF must ensure logistics core capabilities are preserved. It must be clearly enunciated and communicated to the entire department that embedding will become a normal part of career progression, and not a career posting. DND must also consider all the concerns and aspects of embedding individuals en mass or individually before committing itself irreversibly into any project or initiative.

ACRONYMS

AAG	Arrival Assistance Group
ACSSS	Air Combat Service Support Squadron
ADF	Australian Defence Force
ADF – CSA	Australian Defence Force Commercial Support Activities
ADF – CSP	Australian Defence Force Commercial Support Program
ADM Mat	Assistant Deputy Minister Material
AFC	Armed Forces Council
AFSC	Air Force Support Capability
ASD	Alternate Service Delivery
C2	Command and Control
CANCAP	Canadian Forces Contractor Augmentation Program
CDS	Chief of the Defence Staff
CF	Canadian Forces
CFAO	Canadian Forces Administration Orders
CFSD	Canadian Forces Supply Depot
CFSSU	Canadian Forces Supply System Upgrade
CMRS	Chief of Management Renewal Services
CO	Commanding Officer
CoC	Chain of Command
CONDO	Contractors on Deployed Operations
COTS	Commercial Off the Shelf (System)
CSP	Commercial Support Program (Australian)
CSS	Combat Service Support
DAG	Departure Assistance Group
DAOD	Defence Administration Orders and Directives
DCDS	Deputy Chief of the Defence Staff
DCS	Directorate of Costing Services
DND	Department of National Defence
ECS	Environmental Chief of Staff (A-Air Force, L-Land, N-Navy)
HR	Human Resources
IM/IT	Information Management/Information Technology
IT	Information Technology
LOGCAS	Logistics Contractor Augmentation Support;
MOS	Military Occupational Structure
MOSART	Military Occupational Structure, Analysis, Redesign & Training

MCCRT	Management, Command and Control, Reengineering Team
NORAD	North American Aerospace Defence
NATO	North Atlantic Treaty Organization
NCM	Non Commissioned Member
NDHQ	National Defence Headquarters
NLU	National Level Unit
NMSC	National Military Support Component
OAG	Office of the Auditor General
OPI	Office of Primary Interest
PC	Prime Contractor
PDR	Personal Development Report
PER	Performance Evaluation Report
PPE	Personal Protective Equipment
PWGSC	Public Works and Government Services Canada
QAR	Quality Assurance Representative
QR&O	Queen's Regulations & Orders
RFP	Request for Proposal
SCONDVA	Senate Committee on Defence and Veterans Affairs
SCP	Supply Chain Project
SFOR	Stability/Stabilization Force (NATO – FRY)
SSS	Site Service Support
TBGC	Tibbet and Britten Canada
TBS	Treasury Board Secretariat
UK MoD	United Kingdom Ministry of Defence
USAF	United States Air Force
US DoD	United States Department of Defence
VCDS	Vice Chief of the Defence Staff
VFM	Value for Money

DEFINITIONS

Alternate Service Delivery (ASD): Entails the pursuit of new and appropriate organizational forms and arrangements, including partnerships with other levels of government and other sectors, in order to improve the delivery of programs and services. Innovative organizational arrangements for delivering government programs and services that may result in:

- More cost-effective, responsive delivery to Canadian citizens;
- Changes in organizational culture and management practices so that the organization performs more effectively; and
- The granting of greater authority to managers, thus moving decision making closer to the point of delivery, to the communities served and to Canadian citizen.

Balkan Rationalization Project: This Contract Support Project (CSP) was developed as part of the overall Balkans rationalization process to respond to a requirement. The CSP has two aims: to increase the operational flexibility of the CF by creating a new capability that uses Canadian business to support deployed operations; and to relieve the stress currently imposed on CF members in service support occupations by the demands of Canada's continuing commitments in the Balkans. The first contract was awarded to ATCO Frontec to provide the following support services: warehousing, transportation, bulk fuel management, vehicle maintenance, food services, communications services, camp maintenance, electricity and water supply and distribution, waste management, facility operation and maintenance, fire services, and environmental protection.

Canadian Forces Contractor Augmentation Program (CanCAP): The Canadian Contractor Augmentation Programs (CanCAP) was drawn up to create an already contracted for contractor capability that could be 'called upon' when and where required by the CF to support future operations, in effect a list of qualified suppliers. J4 Material had the program designed with a mature, stable and secure environments (low level peacekeeping) in mind rather than a high-risk environment (combat operations), which would continue to require a dedicated military capability. The strategic intent of CanCAP is to:

- Provide the Canadian Forces with additional operational flexibility through enhanced support capacity;
- To free up military personnel for employment where their military skills are most needed; and
- To allow more concentration on the preservation of support-to-war fighting skills in the support forces.

Chain of Command (CoC): A line reporting hierarchy.

Commercial Off the Shelf (COTS): Items procured from industry that have not been modified with military specifications.

Combat Service Support (CSS): CSS supports battles and engagements through a number of characteristics: responsiveness, simplicity, flexibility, attainability, sustainability, survivability, economy, and integration. CSS consists of many interrelated functions. Planning, managing, and executing support involves synchronizing and integrating them. At all levels of operations, the CSS functions include: maintenance, transportation, supply, combat health, field services, EOD, human resources support, financial management, religious support, and legal support. General engineering and contract support are also support sustainment operation.

Duty Area: A logical grouping of related tasks, representing a distinct major activity involved in the work performed by a large segment of an individual.

Embedding: By the dictionary definition, embedding is to fix firmly in the surrounding mass.

Force Generation: The process of bringing forces, or part of them, to a state of readiness for operations, by assembling, organizing personnel, supplies, and materiel. This task includes the training and equipping of forces and the provision of their means of deployment, sustaining and recovery to meet all current and potential threats. Account must be taken of the need to cater for concurrent operations and timely recuperation. It also embraces the mobilization, regeneration and reconstitution necessary to meet a major conflict, such as general war, and the long-term development of capability to meet changing circumstances.

Job: A group of positions that are identical with respect to their major or significant duties and tasks.

Knowledge: The theoretical and/or practical understanding of a subject matter required to perform work.

Mission: The essential activities assigned to an individual, unit, or force. It contains the elements, of who, what, when, where, and the why (reasons therefore), but seldom specifies the how.

Mobilization Occupation: An occupation created to satisfy operations-essential job requirements, which facilitate the rapid expansion of the CF in times of increased operational tempo or emergencies.

Most Efficient Organization (MEO): An organization that has been trimmed to meet the fiscal and manpower limitations so that it is a viable entity. Maximum use of all resources for effectiveness and efficiency.

Military Occupational Structure (MOS): The arrangement of related Officer and NCM jobs into occupational groupings, which are based on job requirements, to facilitate the control, training and management of personnel resources.

National Level Unit (NLU): A formed unit that has a national level tasking.

National Military Support Component (NMSC): The centerpiece of the NMSC project is the creation of a CF Joint Support Group (JSG) that will be able to provide a Task Force Support Group for deployed CF Task Forces. The JSG will include a command and control, military engineering, land equipment management system, military police, communications and information systems and a logistic capability designed to support CF operations at the strategic and operational levels. The NMSC project will develop a system to organize the necessary personnel augmentation from Regular and Reserve units across Canada to enable the Canadian Forces to conduct and sustain operations in Canada or anywhere in the world. The CF JSG, whose HQ will be operating out of CFB Kingston, will be able to raise a Joint Task Force Support Group (JTFSG) that would deploy into a theatre and provide support for the reception and initial employment phase of every new mission. The JTFSG would engage in co-operative actions with Alliance or coalition partners, as well as the host nation, freeing tactical units to conduct military operations. It would then re-deploy to Canada, when replaced by the next Rotation's support group, and prepare for the next operation.

Occupation: A grouping of related jobs having common duties and tasks, requiring similar qualifications that are organized to provide personnel management.

Occupational Analysis (OA): The process of conducting a detailed and objective examination of an occupation to determine the tasks and duties of that occupation and the knowledge and skills required to accomplish those tasks and duties.

Partnering Arrangements:

Strategic – encompasses a number of individual projects and allows the MOD and industry to explore and develop technological and strategic initiatives.

Project – provides a confidence-building first step for those procurements considering the partnering approach. Single, high-value, long-term projects are the most likely candidates.

Prime Contractor: The person who, by the Contract, undertakes to supply the goods, or perform the service, or both for the Authority as is provided by the Contract. Where the Contractor is an individual or a partnership, the expression shall include the personal

representatives of the individual or of the partners, as the case may be, and the expression shall also include any person to whom the benefit of the Contract may be assigned by the Contractor with the consent of the Authority.

Public Private Partnerships (PPPs) MOD: a procurement initiative, which enables budget holders to make the best use of MOD and industry capabilities, skills and experiences. This is one of the central strands of the British Government's strategy to modernize public services under the 'Better Quality Services' initiative. The PPP programme encompasses a number of initiatives such as the Private Finance Initiative (PFI), Partnering, the Wider Markets Initiative, and Outsourcing. PFI is at the core of the PPP programme and can involve the private sector in creating (or buying) a new physical asset and the selling of a range of services to the Department built round the asset over an agreed period of time.

PFI – aims to provide better value for money by allowing the MOD to focus on its core tasks, while benefiting from additional capital investment. PFI offers the potential for greater risk transfer (including demand, construction, and residual value risk) to the private sector, and is likely to involve rigorous due diligence scrutiny of the project by banks. PFI allows the private sector the opportunity to show innovation in the method of service delivery and places strong incentives on the contractor to deliver the service to time, cost and performance targets, as well as affording scope for the generation of 3rd party revenue. PFI involves contracting for a service, with service-based payment mechanisms, where substantial capital investment is needed in an asset essential to deliver that service.

Partnering – is essentially the development of new, much more co-operative long-term relationships between MOD and industry. Partnering differs from conventional contracting relationships in the effective communication strategies amongst partners leads to trust, better, and earlier identification and hence management of project risks, increasing better value for money being gained in large scale complex requirements.

Request for Proposal (RFP): A RFP is used to solicit proposals when: only one source is being solicited; you expect to negotiate with one or more bidders about certain aspects of the requirement; or the requirement is of such a nature as to warrant the invitation of supplier proposals – where the suppliers are asked to propose a solution to a defined problem, requirement or objective and contractor selection is based on the effectiveness of the proposed solution rather than on price alone. A RFP should clearly define the: problem, requirement, or objective; terms and conditions of the resulting contract; specific evaluation criteria being applied; bidding and evaluation procedures applicable to the competitive process being followed; and applicable contract documents.

Supply Chain Project (SCP): The outsourcing of all static material distribution functions. It should be noted that the Army and the Air Force shut off the project.

Site Service Support Project (SSSP): CF units are spread out across the country on several sites. These sites provide a wide spectrum of support services to the units and the military community in order for them to carry out their missions, home and overseas. Site support services (SSS) includes everything from repair and maintenance of vehicles and equipment, to construction and maintenance of buildings and works, data processing, food and billeting services, personnel services, lodging, transportation, security, telecommunications, water supply, grounds maintenance to fire services. All support services at all sites will be reviewed over time to find more effective and efficient ways to deliver those services. Although the initial way ahead for these reviews was to seek proposals in a competitive setting from both private sector proponents and the internal organization (through an in-house bid), it has been subsequently decided to first develop a Most Efficient Organization (MEO) proposal solely by the internal organization and assess it independently.

Skill: A practiced mental and/or physical activity that requires a measured degree of proficiency.

Sponsored Reserves: This concept envisages the letting of contracts for services on condition that the contractor maintains, in its workforce, an agreed element that have volunteered to, and have become, members of a Reserve Force.

Task: A discrete segment of work, performed by an individual, which has a definite beginning and an end, and constitutes a logical and necessary part of a duty.

Work: Expenditure of energy, striving, application of effort or exertion to a purpose.

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LIST OF CONCERNS

1. To follow on from the items listed in Section 2 B, following are primary concerns with several main points in each (this list is by no means complete but provides a good starting point):

a. Support to Operations.

- (1) The deployable support units of the Navy and Army (ships and CS units) are considered 'mobile' and therefore protected from embedding. The Air Force support concept – Air Combat Service Support Squadron (ACSSS)/ Air Force Support Capability (AFSC) – is a deployable support unit for air operations, which draws assets from the wings, but has not been recognized by ASD initiatives.
- (2) Base/Wing personnel provide backfill/deployed personnel in first-line units. An entire squadron never deploys all its aircraft; therefore rear party personnel are required to support remaining flying operations. Without the ability to train and employ supply chain personnel away from home base, the air force will not be able to support the level of operations currently tasked.
- (3) During the handover to contractor, attrition will greatly impact ability to provide uninterrupted support to operations.

b. Force Generation/Training.

- (1) The 'military protected' personnel also form the force generation cadre needed to support Capability Component (CC) 1/CC2/CC3 deployed operations, national and UN taskings, yet it is unclear how the personnel would be deployed for training and operations. We would be required to negotiate with contractors when tasking military personnel on short notice for training and deployments. This also brings up the matter of Departure Assistance Groups (DAG)/Arrival Assistance Groups (AAG), capability training, and currency training.
- (2) Military personnel will not get hands-on management/leadership training/experience if management is not embedded in the contractor organization.
- (3) Provision must be made for rotation of personnel within an embedded organization for cross-training/skills currencies, or we could be left with forces that lack current skills and knowledge to support deployed

operations.

- (4) Provision must be made for personnel to pursue training in areas such as: second language, physical fitness, government mandated, professional development, IM/IT, etc.

c. Military Ethos.

- (1) The isolation of our junior personnel from senior military leadership will potentially adversely affect morale, unit cohesion, mentoring, and esprit de corps.
- (2) The isolation of our military personnel from the operator, their customer, will potentially adversely affect the sense of mission, understanding of deployed operations, and cross-pollination/ transfer of knowledge within, and between MOCs.
- (3) The entire military cultural is at issue.

d. Establishment.

- (1) There is potential for additional 'journeymen' to be declared surplus due to an inability to embed them into a contractor organization; resulting in an establishment below MOS identified numbers.
- (2) The amount of time spent by supply chain personnel on performing secondary duties has not been acknowledged, nor has an alternate work force been identified.

2. Minor concerns include but are not limited to the following:

A. OPERATIONS.

- (1) Chain of Command.
- (2) Readiness levels not met by personnel exposed only to a civilian milieu.
- (3) Loyalty of personnel not exposed to daily military operations.
- (4) Ability to integrate teams into contractor organization.
- (5) Loss of direct military contact with operational customer.

- (6) Operators' expectations of contracted support (i.e. Bell Tektron contracted to 'ship' part within 24 hrs, but could take 1-24 days to reach destination, depending on where it is – domestic or deployed) part will not be operators' hands in 24 hrs.
- (7) Attrition during handover to contractor and ability to provide uninterrupted support.
- (8) Personnel unfit for deployments put in contractor organization and not followed up for universality of service.
- (9) Limited guarantee of uninterrupted support to operations when moving from one contractor to another at end of initial contract period.

B. TRAINING.

- (1) Military personnel will not get hands-on management training if management not embedded in contract.
- (2) Who will be responsible for administration/coordination?
- (3) CFSSU and CFSSU Deployed (if implemented) training bill.
- (4) Capability training bill/ability to do collective training.
- (5) Classification and trades training, who is responsible to coordinate?
- (6) Rotation of personnel within contractor for cross training.
- (7) Contractor orientation and transition.
- (8) Learning curve for personnel newly posted in to a contractor.
- (9) IM/IT training for deployed operations.
- (10) Training bill for government mandated programs (i.e.- SHARP, SLT, Legal).
- (11) Professional development.
- (12) Separation of leaders from the troops.

- (13) Restricted possibility of cross-pollination or transfer of knowledge within, and between MOCs due to limited day-to-day contact (i.e. daily military life, Messes, etc).
- (14) Military driver qualifications required to operate non-DND equipment/vehicles.
- (15) Military driver qualifications lapsing if not employed in such capacity by a contractor (i.e. highway cruisers, air brake vehicles).

c. Military Commitments.

- (1) Tour lengths with contractor.
- (2) Military ethos/esprit de corps/divided loyalties to the military and the contractor.
- (3) Discipline/powers of punishment.
- (4) Fitness requirements/universality of service.
- (5) Merit boards and how they will view embedded personnel vice their 'mobile' field 1st and 2nd line colleagues.
- (6) PERs and those responsible.
- (7) Career development verses those in first line units.
- (8) Parades/dress and deportment.
- (9) Commitment to first-line units to provide backfill/deployed personnel.
- (10) Possible dissolution of Active Posting Season (APS), disruption to dependants.
- (11) Secondary duties.
- (12) Leave/short leave/special leave entitlements.
- (13) Plan for employment of Reservists.
- (14) Military driver liability to operating non-DND equipment/vehicles (i.e.- liability if a MSE Op has an accident in a contractor owned vehicle).

d. Quality of Life.

- (1) Family/member support system.
- (2) Hours of work/liability to be used as 'free labor' for contractor manning shortfalls/ overtime.
- (3) Workplace safety issues/impact on pensions, insurance.
- (4) Compassionate postings, Leave With Out Pay (LWOP), Special/Medical Patients Holding List (S/MPHL).
- (5) Union/strike situations (crossing of picket lines).
- (6) Medical services.
- (7) Potential conflicts between military and minimum wage contractor employees.
- (8) Access to the D-Net or DND publications.
- (9) Discrepancies in benefits (i.e.- TD benefits/accommodations).
- (10) Contractor may expect longer postings for military embedded to offset long learning curve.

E. LESSONS LEARNED FROM PREVIOUS EXPERIENCES (QAR, BOSNIA, ETC).

- (1) Military expected to pick up slack for non-performance of contractor or omissions in SOW.
- (2) Conflict resolution between contractor and military embedded.
- (3) Support to other government agencies that will only deal with DND, not a contractor.
- (4) RFP/SOW drafted on short timelines causes omissions that will be expensive 'contract extras' later.
- (5) During handover attrition will greatly affect ability to provide uninterrupted support to operations.

(6) Contractor uses military as 'scapegoat' for shortfalls in contract performance.

f. Miscellaneous Concerns/Questions.

- (1) Support for the officer corps is normally not mentioned; however, all agree that officers will have to be embedded to ensure the needs of the soldiers/ sailors/ and airmen are addressed. The question to ask is do we need deployable-trained officers to support the Environmental Chiefs Staff? If so, where do you employ them? Where then do support officers gain any supervisory experience if the wings/bases/ships/units support functions are contracted out?
- (2) How will the junior tradespersons acquire the competence they currently gain on the job? Will we need to embed extra positions to satisfy our training requirements? How will the trades, which acquire qualification through OJT and formal courses, be handled? Will DND be able to move personnel from one contractor to another at the same location, or from one work site to another, to satisfy OJT requirements?
- (3) Some have suggested that "it may be possible to select non-critical activities or activities that can readily be supported by the private sector". If these activities are not critical, why even bother to embed at all, just contract them out and be done with them? If a job is embedded, it is assumed that it reflects a deployable requirement and thus is critical to the Air Force's mission, or that of the Army or Navy.
- (4) Advance planning by the contractor is essential if costs and adverse impact on service delivery are to be minimized (to replace deployed personnel). If the embedded personnel are deployable, they will require annual training (individual and collective). This training will have to be carefully scheduled by the CF to facilitate replacement of embedded personnel; all training will have to be taken at once vice a week here, a day there, as we currently do. How will replacement workers be situated against the embedded military?
- (5) How do you compensate military personnel for working unpaid overtime alongside contractor's employees working at overtime rates? (It is doubtful that CTO will be in the contractor's vocabulary!) Will military personnel be required to cross picket lines in case of labor actions by the contractor's employees? Will DND compensate embedded personnel for any damage caused by contractor's employees to their property or for injuries suffered trying to cross a picket line? Will there be a mechanism preventing the

contractor from assigning military personnel the menial or hazardous jobs his employees do not want to or refuse to perform? Will military personnel be subject to discrimination and isolation from the other employees if they are seen as strike breakers during labor disputes?

- (6) The potential for embedded military personnel to be seen as strike-busters is a possibility. Any contract must make it clear to the contractors that military personnel are not to be employed to make-up for any loss of productivity resulting from labor relation difficulties between the contractor and his/her employees. Degradation of service provided by contractor due to labor relation actions should be the contractor's sole responsibility. The contractor must also be held responsible for the physical security during labor action of embedded military personnel, their property and any equipment/machinery owned by DND and used by embedded military personnel to perform their duties.
- (7) There are some liability issues which will not be covered by the contractors' insurance which must be addressed to protect any embedded military personnel:

(a) Medical Liability

- (i) What will be the effect on disability pensions for military personnel injured while embedded with a contractor?
- (ii) Will safety investigations (CF 663) and doctor's assessment (CF 98) still be done?
- (iii) Will there be a military doctor at each work site?
- (iv) Will D Safe G be consulted?
- (v) Pension implications.

(b) Legal Liability

- (i) Can the embedded military personnel refuse to work if the contractor follows unsafe practices (which is quite common in the civilian world where every corner cut means a few more dollars added to the bottom line)?
- (ii) Could the military embedded be held liable for equipment damaged during the work process?

- (iii) What financial indemnity will be held by the contractor?
 - (iv) Could such refusal to work be seen by the contractor as under-performance caused by military personnel and DND held liable for it?
 - (v) It is widely known that many commercial trucking companies cut corners and do not follow provincial/federal laws and regulations (e.g. long haul drivers with two logbooks). This could result in military personnel being seen as troublemakers by the contractor and his employees. There is also an associated ethical dilemma for military personnel - What is their personal liability if they try to minimize the trouble to DND and follow improper/illegal practices and procedures directed by the contractor? Will DND leave them out to dry or will we make it clear from the start that embedded personnel will not be penalized for refusing to follow illegal/improper practices?
- (8) The potential for friction points has also been eluded too. Issues may include harassment, discrimination, inadequacy of training, plus conflicting goals (profit vs. service) and conflicting cultures (get the job done right vs. cut all possible corners).⁵⁵

⁵⁵ Environmental Working Group August 2001, op cit.

Training and Job Specifications

1. Training (MOC, Integrated Occupation Specifications, Outside Certifications, etc) and operations (UN, NATO, CanCAP, NMSC/JSG, etc) for embedded military personnel should be conducted in consideration for the following:
 - a. Job specifications for CF members working in contractor-operated facilities will be within the parameters of their particular MOCs.
 - b. Training for embedded personnel shall be paid for by the Crown where it is either:
 - (1) Task specific military training; or
 - (2) Operational military training.
 - c. Course loading of career courses remains the responsibility of the Career Manager. Course messages will be disseminated through the military chain of command, info the contractor. The contractor will not have the authority to remove a military member from a career course.
 - d. Course loading of non-career courses shall be sought by nomination through the chain of command. Funding will be a unit responsibility. The contractor will be consulted to approve all such courses.
 - e. Operational military training will be forecast in advance and notice provided to the contractor of participation of those CF members who are embedded.
 - f. Any training provided by the contractor shall be at the contractor's expense unless otherwise specified in the contract. Any and all training undertaken will be annotated on the members Unit Employment Record (UER) by the chain of command and where appropriate on annual Performance Evaluation Report (PER). The Crown/DND shall acknowledge accomplishment of the above training.
 - g. The contractor shall be responsible for obtaining competence certification for embedded personnel where such certification is required by provincial regulations.
2. In addition there are aspects of personnel administration (including dispute resolution) and casual employment that must also be mentioned in this section:
 - a. Personnel Administration.
 - (1) The Crown/DND shall as far as practicable notify the contractor three (3) months in advance of posting of CF personnel embedded in a Contractor

APPENDIX B

Operated Facility. Tours length for embedded personnel will be at the discretion of military operational requirements, manning for embedded positions will remain at Priority 6.

- (2) In the event that the contractor has a complaint of grievance regarding the arrangement under which a CF member works in the contractors' organization, the contractor may raise these concerns with the member's Commanding Officer.
- (3) In the event that the contractor has a complaint or grievance regarding the performance or behaviour of any CF member embedded in the contractor's organization may raise these concerns with the member's Commanding Officer. The contractor shall notify the member concerned in the first instance of the nature of the complaint or grievance before referring the matter to the member's Commanding Officer.
- (4) In the event that an embedded member has a complaint or grievance regarding the arrangement under which he is embedded in the contractor's organization, these concerns are to be raised through the normal military chain of command.
- (5) DND requires that annual assessments in the form of PERs be completed for each member along with quarterly Personnel Development Reports (PDRs). The contractor shall provide a written comment to the member's Commanding Officer on his performance in accordance with specific instructions and timings to be promulgated by the Commanding Officer.
- (6) CF members will be afforded the opportunity to speak to their military superiors on career matters throughout the course of the year. Access will be given to the career manager during annual career manager visits.
- (7) The contractor shall ensure that embedded personnel enjoy access to all amenities and facilities on the same basis as the contractor's employees.
- (8) In the event that a CF member whilst on or at the contractor's facilities requires emergency medical treatment for any reason such treatment is to be provided to the member as required.
- (9) Medical restrictions and personal problems that result in restricted employment will be discussed with the contractor prior to the members posting to an embedded position or as soon as determined if already embedded. The contractor must be prepared to accommodate such restrictions where feasible.

- b. Casual Employment.
 - (1) CF members may elect to accept casual employment with the contractor outside both CF working hours as previously specified and overtime hours worked. In such cases the member is not an employee of the crown and the Crown/DND will not accept any responsibility for any loss, injury or damage to the member arising out of or in the course of casual employment.
 - (2) The contractor accepts responsibility for all compensation, damages or other claims howsoever arising in the event that a CF member under casual employment is injured on the way home from such casual employment.
 - (3) Without limiting its generality the above includes situations where the CF member worked as a Crown/DND employee prior to taking up civilian employment and has traveled to the place of work as a Crown/DND employee.

- c. Dispute Resolution - Specifics for dispute resolution should be incorporated into the Contractual Framework. There are however three different types of issues that should be addressed by the dispute resolution mechanism:
 - (1) Contractual disputes - The underlying principle of dispute resolution will be to resolve it at the lowest level. It is hoped that supervisors/customers will be capable of resolving minor issues that arise. Where they are unable to satisfactorily address the issue it should be referred up the chain of command to the on-site contract manager. They will then move to resolve the issue. Where on-site contract oversight is not available, the responsible contract oversight should be contacted and requested to resolve the issue.
 - (2) Procedural disputes - Situations may arise where embedded personnel are placed in the position of being told to perform a task that contravenes DND regulations, i.e. the improper disposal of HAZMAT or procurement of materiel in excess of allowable procurement limits or abiding by applicable procurement regulations. In these instances, the embedded soldier/sailor/airman must ensure that the instance is reported to the appropriate chain of command and to the appropriate contract oversight functionary. Embedded personnel must be aware that due diligence and the consequences of disregarding CFAOs, QR&Os, FAAs are still in effect. To ensure that embedded personnel are not intimidated into silence, the contract oversight OPI must establish an anonymous system of reporting such breaches of regulations.

- (3) Personnel matters - The guiding intent is that open lines of communication between the chain of command and the contractor should attempt to address all personnel matters to the satisfaction of all parties however the chain of command, where embedded must remember that their final responsibility is to the soldier/sailor/airman and DND, not the contractor. It is inevitable that personnel matters will arise that necessitates a coordinated effort between contractor and the chain of command to address. Specific procedures are already in place for the processing of grievances and harassment complaints and should remain unchanged for embedded personnel, that being that they are processed via the military chain of command. The contractor should be informed of specific cases where they are implicated, however the processes for addressing the issues should be respected.

Similar International Experiences

Australia - General

In 2000, the only known international embedding practitioners were the Australians. In the initial stages of the supply chain project, the PMO informally discussed embedding (strategic issues, military and contractor perspectives) with the Australian Defence Force (ADF) – Captain (N) Ran (retired). The Australians were in the process of contracting out support and services; based on this experience, many issues came to light and the military came away with a rather negative view of embedding. Colonel Peter Tweedie is responsible for their program. At the time of the teleconference only 100-150 Air Force Military Required in Uniform (MRU) personnel were involved in the proposed contract, however, the Air Force was trying to get out of the program. The Chief of the Navy indicated that he would not allow any Navy personnel to be embedded, so he found somewhere else to employ them. The Chief of the Army did not have a problem because they [Army] do not have their support manpower in uniform; however, operational forces would be a different story. It was agreed that none of the services liked the idea and were reluctant to go along with it; from the contractor perspective they simply did not care. In addition there was a strong perception that the people would not be used in the way the three services would like them to be employed.

On a related issue with respect to Service Level Agreements there was a mix of mandated (where the contractor must deliver the services) and optional sites. All Air Force bases were mandated sites and the Air Force could not cope with the concept of specifying a level of service. They wanted the level of service delivered on and from their bases (to touch it and feel it). It was hoped that they would move away from this type of delivery, as they get closer to signature. The Navy was more at ease with the concept while the Army did not have a problem with service levels because they have quite separate logistics installations and logistics battalions.

Contractors were not without their concerns, which ranged from contractor responsibilities for training to compensation to physical safety and security to military command over military personnel versus contractor control.

It should be stated that the ADF has undergone a recent rationalization in light of their ability to support their operations in East Timor. The lessons learned and being learned from the deployment to Indonesia has brought to light a large number of deficiencies and shortfalls within the ADF support structure and network.

Australia – Royal Australian Air Force

The RAAF Training Wing HQ staff is responsible for developing the policy governing

the development and employment of aircraft technicians. The RAAF has four aircraft technical occupations: Aircraft, Avionics, Structures, and Life Support. The RAAF is fully integrated into the Australian National Aerospace Competency Standards (NACS). The system produces a QL5 equivalent technician with a nationally recognized credential, which is accepted by all employers in the Australian aerospace industry. The RAAF occupational structure is aligned with the NACS' division of competencies. Apprentice development is divided into two phases: Phase 1, is a year long formal training course for Aircraft, Avionics, and Structures technicians (26 weeks for Life Support); and Phase 2, is a rigorous skills development and assessment process which may take up to two years and is documented in a journal. All Australian aerospace technicians complete the same journal, which provides a complete record of a trainee's off-job and on-job training. The journal is customized for each occupation; however, the layout is identical. In addition, there is detailed direction on the complete process to achieve the desired competency standard. This process includes the requirements that must be met prior to assessment, as well as the certification standards for the assessors themselves. Each journal entry is linked to a previous learning objective, and has a clearly stated practice standard. The RAAF has been deemed an accredited organization so it can authorize its own assessors. Since technician competency is fundamental to airworthiness, a team from the workforce development directorate audits RAAF units for compliance to this technician development standard. It is interesting to note that the RAAF Director Technical Authority (DTA) is co-located with the workforce developers. The current CF skill development logbook process is lacking in a clear competency standard and a rigorous process to achieve it.

Like the RNZAF, the RAAF, utilizes two general levels of maintenance, one called Operational Maintenance (OM) and the other Deeper Maintenance (DM). In addition, it is worthy of note that the RAAF recently decentralized their OM Squadron in the name of operational effectiveness while acknowledging the greater personnel and resource cost. In May 2000, their C130 DM Wing was contracted out to a Qantas/Marshall Aerospace Partnership. In general, the only activity to remain was corporate governance functions. The RAAF is very pleased. Approximately, 10% of the DM workforce remains military under the tactical control of Qantas, but under command of the local Force Element Group HQ (located at RAAF Base Richmond). The size, composition, and chain of command for the embedded military structure builds on the lesson learned from their unsuccessful P3 example of embedding technicians in a contracted environment. The P3 situation involved relatively small numbers (less than 5% of workforce), no integral military supervision, no local administrative control, and an uncooperative contractor. In other words, no structure to support. The RAAF is focused on ops readiness, as demonstrated by their willingness to market test DM and to expend more military productive hours on ensuring that all personnel are ops deployable. Everyone in the RAAF is expected to be deployable.⁵⁶ To show that a member is deployable, they are entitled to wear an ops ready badge after passing a medical, dental, weapon qualification, and social worker

⁵⁶ Australia. Royal Australian Air Force. *Secondment of Department of Defence (Air Force) Personnel to Contractor's Premises – File Number CA/4160/3/016, Standing Offer Number 9306-016-56*. RAAF Base Richmond: Military Printing, 2000.

screening. There are still growing pains with the program and it is expected that once issues and concerns are addressed the rest of the Australian Defence Force will look at various variations to best serve their environment.

All levels of the ADF are looking at better ways to conduct business and if this business method includes embedding military personnel they are certainly not averse to looking at what the perspective contractors have to offer.

New Zealand

The New Zealand Defence Force (NZDF) successfully employs the embedding of military personnel within the Royal New Zealand Air Force in the aircraft maintenance technician trades (Avionics, Armament, Safety and Surface, and NDT). At this time aircraft maintenance is the only area where the embedding of military personnel is employed; however, the NZDF is looking at other areas.

As the aircraft maintenance technician trades are mechanical oriented trades there is a series of training that must be completed before the individual is allowed to work on aircraft. Aircraft technical training begins after recruit training and moves to an apprentice skills development period after which the technician advances to speciality training, duration varies depending on the speciality. The technician then is posted to a squadron.

Each fleet of aircraft has a government-mandated commitment. In an effort to meet that commitment each fleet has a specific set of performance process standards developed by RNZAF Base Ohakea is in the process of developing a Performance Measurement System (PMS). The basis of their PMS is predicated on measuring the outputs of Service Level Agreements (SLA) among various stakeholders. In addition, the Logistics Evaluation Unit on RNZAF Base Ohakea provides the basis for the RNZAF quality system. Its mission is to promote the safe and effective operation of logistic functions through specialist evaluation and audit.

In August 1998, in an effort to enhance the operational effectiveness of maintenance and operations, RNZAF opted to contract out third line maintenance. SAFE Air (an IMP-like company) won the contract to carry out the Third Level Inspection Review (TLIR) for RNZAF's P3, C130, and A4 aircraft fleets. The contract with SAFE Air was the first large scale contracting out within the RNZAF community. Previously, they had contracted out TLIR and half the phase inspections on their fleet of single-engine Hueys (a relatively simple aircraft when compared to those previously mentioned). SAFE Air continues to do the TLIR operation from RNZAF Base Woodbourne, which also includes the equivalent of 16 Wing Borden. The contract was created before any RNZAF reengineering efforts and has realized savings of approximately 30% per year. A Flight Lieutenant, who is the OC Contractor Support Flight (CSF) and a staff of 10 NCMs provide the interface with the military. The CSF's primary function is to provide QA and

ensure SAFE Air follows the RNZAF airworthiness standards.⁵⁷ These standards are similar to those written before the CF airworthiness renewal.

As part of the TLIR bidding process each contractor was asked to explain how he or she would employ up to 30 RNZAF technicians and two engineers to permit the RNZAF to retain some TLIR skill-set expertise. Since the military and civilian workers work side by side, their productivity can be directly compared based on billable hours. The SAFE Air civilian worker contributes 1726 productive hours per year, whereas the military technician produces 1352 productive hours per year. Incidentally, the DND accepted standard for the number of productive hours a CF member works in a year is 1313.1 hours. The embedded military workforce contributes approximately 15% of the productive hours. When military personnel work on RNZAF aircraft, it reduces the air forces contracted cost for the work through a mixture of contractor and military personnel. In addition, since the Air Force still owns the buildings and land, the company pays the RNZAF a royalty on all work plus a volume discount if the military work exceeds a certain billable hour threshold. The contract states that the company will do at least 100,000 hours of third party work. This guarantees that the RNZAF will benefit from shared contractor overhead costs. In return, the Air Force is obligated to send 160,000 hours of work to SAFE Air. The embedded personnel can work on third party aircraft if the experience is relevant. In this case, the company pays the air force for the use of its personnel. In addition, military members are compensated for any overtime on a one to one basis by the equivalent time-off or by volunteering to work on third party aircraft for which they are paid additional wages.

In turn, SAFE Air is entitled to send a few of its civilian apprentices through the RNZAF Base Woodbourne technical training school at a marginal cost. The RNZAF personnel are both journeymen and supervisors. They are seconded to SAFE Air, and work as individuals. These journeymen usually work under the supervision of an experienced civilian supervisor and in turn military supervisors control SAFE employees. SAFE Air supervisors recommend all leave, but OC CSF (military) approves it. Also, they use a customized PER form (a cross between the RNZAF and SAFE's) that the immediate supervisor fills out, then the CSF converts it to the RNZAF standard. The seconded members participate in all required military activities (sports included). The military requirement is facilitated by SAFE Air being effectively a lodger unit at Base Woodbourne. The military can pull their personnel out at any time, but have also agreed to accept a reasonable slippage in their aircraft production schedule. This system works very well, since the CSF and SAFE Air have an excellent working relationship. This arrangement is still maturing as only a few military personnel have rotated since August 1998. Further enhancements to the arrangement include fixed tour lengths for the seconded personnel, as well as designated employment positions afterwards. This enhancement will be akin to a certain fleet sponsoring a Post-Graduate candidate. It is recognized that these seconded positions must be part of a fleet's skills development plan.

⁵⁷ New Zealand. New Zealand Defence Force. *Royal New Zealand Air Force Expertise Retention – SAFE Air Contract*. Woodbourne: RNZAF Printing, 2000.

United Kingdom – General

The Ministry of Defence (MoD) now effectively employs four different programmes to assist in procurement and procurement activities: Public Private Partnership (PPP), the Private Finance Initiative (PFI), Partnering, and Sponsored Reserves.

The Public Private Partnership Programme (PPP) seeks to employ the expertise within the private sector to inject the best commercial practices into the services. Public Private Partnerships (PPPs) MOD is a procurement initiative, which enables budget holders to make the best use of MOD and industry capabilities, skills and experiences. This is one of the central strands of the British Government's strategy to modernize public services under the 'Better Quality Services' initiative. The PPP programme encompasses a number of initiatives such as the Private Finance Initiative (PFI), Partnering, the Wider Markets Initiative, and Outsourcing. PFI is at the core of the PPP programme and can involve the private sector in creating (or buying) a new physical asset and the selling of a range of services to the Department built round the asset over an agreed period of time. An example of this programme was the 30 May 2002 letting of a contract to British firm Barloworld Handling Limited.⁵⁸ In addition, EDS Systems is working with the Comptroller/Pay staffs and have a number of embedded military personnel within their lines – this initiative appears to be working well at this time.

The Private Finance Initiative (PFI) aims to provide better value for money by allowing the MOD to focus on its core tasks, while benefiting from additional capital investment. PFI offers the potential for greater risk transfer (including demand, construction, and residual value risk) to the private sector, and is likely to involve rigorous due diligence scrutiny of the project by banks. PFI allows the private sector the opportunity to show innovation in the method of service delivery and places strong incentives on the contractor to deliver the service to time, cost and performance targets, as well as affording scope for the generation of third party revenue. PFI involves contracting for a service, with service-based payment mechanisms, where substantial capital investment is needed in an asset essential to deliver that service.

According to the MoD, PFI allows the MoD to take full advantage of private sector management skills by transferring ownership, operation, and support in one package over an extended period of time. It also allows appropriate risks to be transferred to the contractor who is best able to handle it, and gives the taxpayer the best value for money.⁵⁹ In essence, a PFI procurement sees industry, usually a consortium, shoulder the burden of financial risk and provide the military user with a service-based facility. This service may, at this time, include items such as transport, administration, or training. Although this approach is often referred to as outsourcing, there is a difference. Outsourcing has been widely adopted in the United States and sees companies providing instructors and technical support in furtherance of a particular

⁵⁸ Ministry of Defence, www.mod.uk

⁵⁹ Trevor Nash, "Lessons Learned from PFI." *MT&SN*. Vol 4. Issue 5 (London: October 2002), pp 26-28.

programme. In comparison, the PFI responsibility typically lasts for 15-25 years with the contractor being totally responsible for the complete facility and training provision. This obligation includes the procurement of all synthetic training equipment, and the provision of the complete training infrastructure including buildings, IT, maintenance support, administrative support, and instructors. It is not an exaggeration to say that PFI sees the complete transfer of the total military training function from the military to commercial contractor. In theory, at least, such a programme is deemed as a win-win situation for the military and the contractor. From the military's perspective, they receive a state-of-the-art training facility with integrated training and support capabilities. From the perspective of industry, the contractor receives a long-term contract and shareholders are guaranteed long-term income. The latter is a major benefit in the peaks and valley world of military procurement. The move from hardware provision to service provision suits industry. MoD has already adopted a number of major PFI programmes, including the Medium Support Helicopter Aircrew Training Facility (MSHATF), and the AH-64D Apache and the Defence Helicopter Flying School (DHFS). Several more programmes are being considered for the future.

Partnering is essentially the development of new, much more co-operative long-term relationships between MOD and industry. Partnering differs from conventional contracting relationships in that effective communication strategies amongst partners lead to trust, better, and earlier identification and hence management of, project risks, increasing better value for money being gained in large scale complex requirements.

The Sponsored Reserves is a unique and innovative program. The Defence Policy on Contracting for Sponsored Reserves (SR) (D/VCDS/20/5) presents the Defence position and policy on Sponsored Reserves.⁶⁰ It defines that concept and describes the mechanisms involved in identifying, recommending, and approving the use of SR. The SR concept envisages the letting of contracts for services on the condition that the contractor maintains, in its workforce, an agreed element who have volunteered to, and have become, members of a Reserve Force. Under Part VI of the Reserve Forces Act 1996 (RFA 96), SR have special liabilities for reserve service, military training, and call out.⁶¹ They can therefore be called out as trained service personnel to continue to support MoD on operations using skills their employers have been contracted to provide. The concept has been pursued with the recommendation that it continue to offer potential to improve value for money and operational effectiveness.

It has been determined that SR have the potential both to save money, especially when used in conjunction with PFI projects, and to ease over stretch in the Regular Force; they enhance the availability and wider use of the Reserves. SR should be considered as possible replacements for Regular Service personnel delivering extant services and those whom it is planned will operate and/or maintain equipment which is due to enter service in the future.

⁶⁰ Ministry of Defence, D/VCDS/20/5 2nd PUS/11/1 11 August 2000.

⁶¹ United Kingdom. Ministry of Defence. *“Reserve Forces Act 1996, Sponsored Reserves Terms and Conditions of Service”* (London: Ministry of Defence, 1997), p 4-5-3.

While SR are required to have the military core skills and competencies for the task they have to undertake, they will probably be lacking in peripheral military training and this could, in some circumstances, introduce unacceptably high levels of operational risk. Their use may also have adverse effects on aspects of personnel issues (e.g. trade structures). Along with a host of issues and concerns, there are several factors that are key to this program, namely the enhancement of civilian provided services, the substitution of SR for Regular Force manpower, and the new and innovative projects that have the potential to save large sums of money by transferring the risks of ownership from the service to the civilian sector. In addition, the problems of readiness, training, capability, and associated risk are also highlighted in the definition of the program.⁶² In an effort to prove-out the initiative, the Heavy Equipment Transporter (HET) project was the first major project to use SR successfully and is seen as a stepping-stone for further employment of the SR.

United Kingdom – Royal Air Force

One of the first embedding experiences within the British Forces was the MoD sanctioned Contractor Run Interim Logistics Support (CRILS) program. CRILS was a joint RAF-Marshall Aerospace (MA) venture for the support of the C-130 aircraft from aircraft 2nd Line engineering support through to Depot Level Inspection. As part of CRILS the Royal Air Force (RAF) had aerospace maintenance officers embedding into the Marshall Aerospace facilities at Cambridge. It was expected that this embedding experiment would continue and be expanded with the receipt of the new C-130J fleet; however, the embedding experiment was not extended to the support personnel of the new ‘J’ fleet. Total logistics support was an integral part of the purchase of the aircraft and Lockheed Martin contracted Marshall Aerospace to carry out and staff this function.

November 2001 saw the commissioning, at Royal Air Force Station Lyneham, of the C-130J CRILS Forward Support Facility. This date coincided with the delivery of the first of 25 brand new C-130J Hercules; the new operation will provide logistic support and off aircraft 2nd line engineering support (the remaining engineering functions will be carried out at Cambridge). CRILS is a brand new concept for the RAF, Lockheed Martin, and Marshall Aerospace. From a 17,000 square foot main facility in Swindon and a 3,000 square foot Forward Support facility at Lyneham, a team of 16 Marshall Aerospace and 2 Lockheed Martin AeroSpace (LMAS) staff will provide 24/7 coverage. The operation provides for consumable and rotatable support, repair loop management, inventory control and management, and deployed operations support.⁶³

United States

The United States Department of Defence (DoD) has used the process of embedding sparingly throughout its forces; it prefers to contract out entire functions and has been doing so

⁶² Ibid., pp 4-5-4 to 4-5-10.

⁶³ Marshall Aerospace, www.marshallaerospace.com/News/NewsArchive/news/CRILS.htm

successfully for many years. It has developed a program called Contractor Logistics Support (CLS) for the contracting of weapon system support, in this case aircraft. The DoD uses CLS “to achieve cost effective, responsive, and effective weapon system support ... not to promote the private sector or to offset Air Force downsizing”.⁶⁴ Shared support partnership has the effect of ‘teaming’ and a small number of military personnel are embedded into contractor facilities. In their ongoing search for new and improved methods of doing business, the DoD is looking to many new facets to achieve their goals and to maximize resources.

⁶⁴ Colonel JP O’Neill, *Contractor Logistics Support Briefing* (Ottawa: PMO MHP Meeting, 27 August, 2001).