#### **Archived Content**

Information identified as archived on the Web is for reference, research or record-keeping purposes. It has not been altered or updated after the date of archiving. Web pages that are archived on the Web are not subject to the Government of Canada Web Standards.

As per the <u>Communications Policy of the Government of Canada</u>, you can request alternate formats on the "<u>Contact Us</u>" page.

#### Information archivée dans le Web

Information archivée dans le Web à des fins de consultation, de recherche ou de tenue de documents. Cette dernière n'a aucunement été modifiée ni mise à jour depuis sa date de mise en archive. Les pages archivées dans le Web ne sont pas assujetties aux normes qui s'appliquent aux sites Web du gouvernement du Canada.

Conformément à la <u>Politique de communication du gouvernement du Canada</u>, vous pouvez demander de recevoir cette information dans tout autre format de rechange à la page « <u>Contactez-nous</u> ».

# CANADIAN FORCES COLLEGE / COLLÈGE DES FORCES CANADIENNES AMSC 5 / CSEM 5

# The Canadian Forces Joint Support Group – Logistics salvation or a commitment unfufilled?

By / par Commander Alan J. Kerr

This paper was written by a student attending the Canadian Forces College in fulfillment of one of the requirements of the Course of Studies. The paper is a scholastic document, and thus contains facts and opinions which the author alone considered appropriate and correct for the subject. It does not necessarily reflect the policy or the opinion of any agency, including the Government of Canada and the Canadian Department of National Defence. This paper may not be released, quoted or copied except with the express permission of the Canadian Department of National Defence.

La présente étude a été rédigée par un stagiaire du Collège des Forces canadiennes pour satisfaire à l'une des exigences du cours. L'étude est un document qui se rapporte au cours et contient donc des faits et des opinions que seul l'auteur considère appropriés et convenables au sujet. Elle ne reflète pas nécessairement la politique ou l'opinion d'un organisme quelconque, y compris le gouvernement du Canada et le ministère de la Défense nationale du Canada. Il est défendu de diffuser, de citer ou de reproduire cette étude sans la permission expresse du ministère de la Défense Nationale.

## **ABSTRACT**

The Canadian Forces has experienced a period of high operational tempo since the end of the Cold War. During this time, it became evident that Canada's military was not organized to provide for the effective and efficient logistics sustainment of deployed operations. This paper examines the National Military Support Capability project charter and the report from the Board of Inquiry for Croatia to determine the underlying deficiencies that have resulted in the proposal to form a Joint Support Group. The author uses American and British Logistics Principles to examine its potential effectiveness. The role and effectiveness of United States Transportation Command is reviewed to determine its potential application in Canada. The paper concludes that the Joint Support Group will not be able to address the identified weaknesses and the author recommends that a Transportation Command, based on the American model, be implemented in Canada to address the shortcomings identified in the National Military Support Capability project and the Croatia Board of Inquiry.

# The Canadian Forces Joint Support Group – Logistics salvation or a commitment unfufilled?

. . . it sometimes appears that the logistic aspect of war is nothing but an endless series of difficulties succeeding each other. Problems constantly appear, grow, merge, are handed forward and backward, are solved and dissolved only to reappear in a different guise. In face of this kaleidoscopic array of obstacles that a serious study of logistics brings to light, one sometimes wonders how armies managed to move at all, how campaigns were waged, and victories occasionally won. <sup>1</sup>

Martin Van Creveld, Supplying War, 1977

#### Introduction.

The Canadian Forces (CF) has embarked on a significant number of operational deployments since the end of the Cold War. This high operational tempo has placed a strain on the CF's ability to sustain its operations and it has become clear that the CF is not organized in a fashion that allows the efficient support of deployed operations.<sup>2</sup> The National Military Support Capability (NMSC) Project was created in 1999 as a result of this deficiency and the inability to consolidate theatre level support to meet the disparate logistics philosophies of the Navy, Army and Air Force. The aim of the NMSC is to bridge from the strategic level of support provided from Canada to the tactical level of deployed forces in theatre. The scope of the NMSC is to deploy a Joint Task Force Support Group for high readiness requirements, perform theatre activation for the CF Joint Operations Group (JOG), and serve as the nucleus for support of the main contingency force (MCF) or to indefinitely support an MCF Vanguard force at the

<sup>1</sup> M. Van Creveld, <u>Supplying War - Logistics from Wallenstein to Patton</u> (Cambridge Univ. Press, 1977),

<sup>&</sup>lt;sup>2</sup> Canada, Department of National

operational level.<sup>3</sup> To meet its mandate, the NMSC Project has recommended the establishment of a CF Joint Support Group (JSG) as a unit of the JOG to coordinate logistics sustainment at the operational level for deployed CF operations.

Although still under development, the JSG has a fully dedicated staff of 80 personnel co-located in Kingston with the JOG and is in the final stages of concept design and approval. The Concept of Operations (COO) for the JSG<sup>4</sup> envisions a high readiness core element under the direct command of the Commander JSG with general augmentation forces at reduced levels of readiness drawn from across the CF. It is anticipated that the strength of the JSG will be approximately 1,500 personnel. The JSG will provide logistics, military engineering, health services, military police and land equipment management at the operational level, leaving tactical level logistics support to the Component Commander and strategic level support to National Defence

Headquarters. The JSG will tailor its deployed forces to each operation and will have sufficient dedicated resources for initial deployment, theatre activation and theatre closeout. Other force generators will be tasked with providing personnel for rotations subsequent to the initial deployment to ensure that JSG dedicated personnel are also available for any subsequent operations.

The aim of this paper is to examine the requirement for the NMSC and JSG, review emerging logistics trends, and recommend an effective organization capable of

<sup>3</sup> Ibid. 4.

<sup>&</sup>lt;sup>4</sup> A complete description of the JSG COO may be found at: Canada, Department of National Defence. <u>Joint Support Group Concept of Operations</u>. (Ottawa: National Defence, 16 Jul 2001)

meeting the needs of the CF. The scope of this paper is limited to the logistics aspects of supply and movement of materiel.

#### THE REQUIREMENT.

The Project Charter for the NMSC states that the objective of the project "is to develop a NMSC capable of supporting national operations." The Background in the Project Charter outlines some of the deficiencies that resulted in the establishment of the project.

Specifically, the CF cannot generate the necessary strategic and operational level support forces within current Defence Planning Guidance (DPG) readiness levels for either the Main Contingency Force (MCF) or its vanguard component. Currently, support is provided to operations by creating *ad hoc* [italics in original text] support elements with personnel drawn from the various Force Generators. There is no single, existing CF organisation capable of providing, or arranging, strategic and operational level support to deployed contingents, although some CF units potentially suited to fulfil parts of this role are, in fact, distributed across the force structure. <sup>6</sup>

In the Final Report of the Board of Inquiry (BOI) into CF operations in Croatia, the BOI made several observations beyond the scope of their mandate. In addressing sustainment, the Board stated:

There appears to be a requirement to establish a single operations centre to address all sustainment issues. The Deputy Chief of the Defence Staff (through the Joint staff) functions as the individual responsible for operations. A similar "Chief Supporter" does not exist. Rather, several staffs have responsibilities for operational support issues, and the potential exists for urgent operational support issues to fall through the cracks.<sup>7</sup>

Neither the Project Charter nor the observation from the Croatia BOI provides the specifics of the deficiencies to be addressed. From the above excerpts, one can deduce

<sup>&</sup>lt;sup>5</sup> Canada, Department of National Defence, <u>Project Charter, G0283, National Military Support Capability Project</u>, (Ottawa: Department of National Defence, 15 February 2002), 2. Hereafter NMSC Charter

<sup>&</sup>lt;sup>6</sup> NMSC Charter, 1.

<sup>&</sup>lt;sup>7</sup> Canada. Department of National Defence. <u>Final Report: Board of Inquiry - Croatia</u>. (Ottawa: National Defence, 2000), 49.

that the specific deficiencies are:

- An ad hoc approach to logistics sustainment to deployed CF operations; and,
- The lack of a single organization capable of providing or arranging strategic and operational level logistics support to deployed operations.

Ad hoc has several definitions in the Oxford English Dictionary and the most pertinent one is "... to improvise; ... the use of *ad hoc* measures, especially as a deliberate means of avoiding long term policy." The definitions highlight why an ad hoc approach to logistics support for deployed operations could be ineffective. While Canada has a well-established policy for the support of deployed operations, 9 it has rarely been used and support for each operation is tailored for the specific requirements of the mission. As a result, the project charter may be addressing the impact of an ad hoc approach to logistics support. Recent examples of ad hoc logistics support to military operations provide insight into this issue.

In the Falklands War, British ships were tasked to sail as quickly as possible in an effort to demonstrate the United Kingdom's political resolve. "They were loaded helterskelter in the order of the arrival of equipment and material to the piers where the ships were docked. The working notion was that the ships would pause in their transit to the South Atlantic at Ascension Island and restow. Asset visibility also was a casualty of the speed in getting ships loaded and underway." In spite of efforts to catalogue ship holdings while enroute and a twelve-day visit to Ascension Island to reorganize the

\_

<sup>&</sup>lt;sup>8</sup> J.A. Simpson and E.S.C. Weiner, <u>The Oxford English Dictionary</u>. (Clarendon Press, Oxford, 1989), 152.

<sup>&</sup>lt;sup>9</sup> See: Canada. Department of National Defence. <u>Logistic Support to Canadian Forces Operations:</u> <u>B-GG-005-004/AF-013</u>. (Ottawa: National Defence, 1998), Section IV. Hereafter Log Sp to CF Ops

<sup>&</sup>lt;sup>10</sup> D.A. Schrady, <u>Sea-Based Logistics and Lessons from the Falklands</u>. (Monterey, Naval Postgraduate School, 2000), 11.

supplies, asset visibility was never completely regained. This was further compounded when additional material was airlifted to Ascension Island. "If material was addressed to a particular unit, material handlers at Ascension Island frequently did not know the ship in which the unit was embarked. If the material had only a requisition number, there was even more mystery and again material was loaded somewhat helter-skelter." The Campaign Plan was to hold the stores required for an amphibious landing at sea until such time as air and naval superiority was obtained. When it became clear that the amphibious landing would be undertaken without air superiority, there was no ability to reorganize supplies to support a change in the Campaign Plan.

In the Gulf War, American and Coalition Forces required months to build up the logistics sustainment required in Theatre. Almost ten million tons of material and equipment were shipped to Theatre and some estimates indicate that up to 90% of the ammunition was backhauled. While this incredible logistics achievement was overshadowed by the rapid success of Desert Storm, with the benefit of hindsight, it is possible to imagine that the logistics deployment could have been handled in a more efficient manner. "There was no indication how the receipt of cargo related to the 'plan'; hence, performance could not be evaluated. In any case, of course, there was no plan against which to evaluate the deployment surge. This turned out not to be crucial, since Iraq did not move across the border into Saudi Arabia and thus gave the coalition all the

\_

<sup>&</sup>lt;sup>11</sup> Ibid, 12.

<sup>&</sup>lt;sup>12</sup> Schrady, D.A. Combatant Logistics Command and Control for the Joint Forces Commander. Monterey, Naval Postgraduate School, 1998, 57. Hereafter C2 for the Joint Force Commander

time it needed to build up its forces."<sup>13</sup> The American military has significantly revamped its approach to logistics sustainment as a result of lessons learned in the Gulf War as well as from private sector initiatives stemming largely from the expanding industry of third party logistics<sup>14</sup>.

The above examples from the Falklands and Gulf War provide insight into the outcome of an ad hoc approach to logistics provisioning, build-up and sustainment. An ineffective or inefficient logistics system has the potential to cause military operations to fail. From the above, it is clear that one of the aims of the NMSC and the Croatia BOI is to have an effective and efficient logistics system capable of meeting the logistics requirements to mount, deploy and sustain CF operations.

The NMSC Project Charter and Croatia BOI express concern at the lack of a single organization responsible for the coordination of logistics sustainment at the strategic and operational level. An overview of the CF logistics supply chain provides insight into this concern.

Assistant Deputy Minister for Materiel (ADM (Mat)) is the strategic level materiel manager for the CF. This is referred to as third line logistics support and ADM (Mat) is solely responsible for this activity. ADM (Mat) is a public servant with a civilian rank equivalent to the Commanders of the Navy, Army and Air Force. ADM (Mat) manages the Department's capital acquisition program and its national procurement (NP) program. NP purchases spare parts to sustain the Department's capital

-

<sup>&</sup>lt;sup>13</sup> C2 for the Joint Force Commander, 53.

<sup>&</sup>lt;sup>14</sup> Third party logistics (3PL) is the use of an independent private company to provide expertise in logistics and supply chain management to other companies. A complete description is provided at: D.F. Wood, et al. <u>Contemporary Logistics</u> (Upper Saddle River, NJ: Prentice Hall, 1998), 46.

assets and funds the third party repair and overhaul of capital equipment. ADM (Mat)'s materiel acquisition activities are largely directed from NDHQ in Ottawa. The organization has two supply depots, one in Montreal and one in Edmonton, and runs the CF Supply System (CFSS), which serves as the information management backbone of logistics support for the CF.

Embedded within each of the Environmental Chiefs of Staff (ECSs) organizations, are the second and first line logistics support organizations. The ECSs run the second line Base and Wing Supply organizations and first line supply organizations are integrated in most CF units. The following illustration of Maritime Forces Atlantic<sup>15</sup> (MARLANT) is provided to consolidate the reader's understanding. Each ship has a supply department that is integral to the ship. The ship operates at the tactical level and the ship's storerooms are considered to be first line logistics support. Within MARLANT is a Base Supply that holds second line support spares for the ships and all units in MARLANT. Third line spares are held in either of Canada's two supply depots, and in some cases at the Base level. First and second line organizations use the CFSS for logistics support. ADM (Mat) exercises functional direction for the Supply System, and the first and second line organizations are part of the ECSs chain-of-command.

The support of a deployed operation is conducted from the organizations outlined above with the addition of the Deputy Chief of Defence Staff's (DCDS) J4 Logistics (J4 Log) and J4 Movements (J4 Mov) organizations. Both organizations are part of ADM (Mat) in daily peacetime operations, but work for DCDS in supporting deployed

<sup>&</sup>lt;sup>15</sup> Canada's East Coast Navy

operations. J4 Log manages strategic sustainment issues and J4 Mov manages strategic lift.

The above illustration highlights the variety and number of organizations involved in providing logistics sustainment for deployed CF operations. When things go wrong, and no one single organization is in charge, it is difficult to determine what went wrong and what needs to be done to prevent a recurrence. An inability to effectively support a deployed operation can have a significant impact on the ability of the Commander to meet their assigned objective. To reiterate, the NMSC project and the Croatia BOI seek a single organization that manages an effective and efficient logistics system capable of meeting the logistics requirements to mount, deploy and sustain CF operations. This paper will now examine the ability of the JSG to address this requirement.

## EVALUATING THE JSG.

Measuring the effectiveness and efficiency of a conceptual organization is a challenge. To achieve this, it is useful to return to fundamental principles. The National Defence publication on Logistic Support to CF Operations does not provide any logistics sustainment principles. The American doctrine for logistic support of joint operations outlines seven principles to consider: responsiveness; simplicity; flexibility; economy; attainability; sustainability; and, survivability. The principles of logistics complement the principles of war. In his article on the development of doctrine for operational logistics, the author indicates that the principles "apply to war and operations other than

\_

<sup>&</sup>lt;sup>16</sup> Log Sp to CF Ops, 1-2.

<sup>&</sup>lt;sup>17</sup> United States. Department of Defense. <u>JP 4-0: Doctrine for Logistics Support to Joint Operations</u>. (Washington, DC: Department of Defense, 2000), II-2. Hereafter Doctrine for Joint Log Ops

war."<sup>19</sup> The United Kingdom identifies logistic planning principles that are common to all three services that are important to the execution of joint campaigns and operations. The five principles are: foresight; economy; flexibility; cooperation; and, simplicity.<sup>20</sup> There are many similarities between the two countries' principles, and lacking any Canadian logistics principles, this paper will use them to examine the potential effectiveness of the JSG in meeting the CF's requirements. The British principle of foresight will be examined in conjunction with responsiveness and the principle of cooperation in conjunction with attainability.

#### Responsiveness (foresight).

The JSG will be responsive to the Theatre Force Commander (TFC) by providing a centre for the coordination of the reception, staging and onward movement (RSOM) of logistics sustainment in Theatre. Under the JSG's current COO, JSG personnel will be the first to deploy to activate the Theatre. The JSG will be another organization, in addition to J4 Log, J4 Mov and the second and third line units of the CFSS attempting to ensure that the right item gets to the right unit at the right time. The JSG will not replace ADM (Mat)'s role in running the CFSS nor will it have responsibility for strategic lift. The JSG, like other deployed units, will be at the mercy of ADM (Mat)'s ability to provide effective logistics sustainment. In the earliest stages of operational planning, rather than coordinating the Theatre logistics sustainment plan for the TFC, the JSG's

<sup>18</sup> Doctrine for Joint Log Ops, II-1.

<sup>&</sup>lt;sup>19</sup> Maj K.S. Marquardt, <u>Devising Operational Logistics Doctrine</u>, (Army Logistician, Jan/Feb 2000, Vol 32, Issue 1), 31.

<sup>&</sup>lt;sup>20</sup> United Kingdom, Joint Doctrine Web, <u>United Kingdom Doctrine for Joint and Combined Operations</u>, Chap 8.

primary concern will be to activate and bring together augmentees, deploy, and establish a Theatre RSOM facility.

## Simplicity.

Simplicity is about reducing complexity or making complex matters simpler through the development of standing operating procedures (SOPs) and regularly exercising them. A guiding principle to accomplish this in military operations is to train and prepare for operations using the same SOPs as they intend to employ while deployed. Training with one set of SOPs while deploying on operations with a different set of SOPs creates confusion and hampers effectiveness. "The logistic support system must be in harmony with the structure and employment of the combat forces it supports. This unity of effort is best attained under a single command authority. Wherever feasible, peacetime chains of command and staffs should be organized during peacetime just as they would be in wartime to avoid reorganization during war."<sup>21</sup> The JSG will only be used to support CF deployed operations. While training and exercises will be developed to assist in preparing the JSG to meet its mission, the CF will conduct its day-to-day operations using existing CFSS functionality. Regardless of how transitions from peacetime to deployed operations are managed, the CF will employ a different logistics sustainment model between peacetime and wartime. The JSG will be superimposed on an existing system, which will be modified to support deployed operations.

## Flexibility.

The support of deployed operations requires a structure that is able to respond to changing situations and concepts. In the conclusion to his book on Gulf War Logistics,

\_

<sup>&</sup>lt;sup>21</sup> Doctrine for Joint Log Ops, II-6.

British LGen White observes that there had been no established structure for the deployment of a sizeable armoured force outside of Europe. "The responsibility for controlling the resupply chain needs to be clearly defined. Planning should be joint from the earliest opportunity. At the same time, the ability to ensure the timely delivery of stores and assets requires that they be tracked accurately throughout the resupply chain and not end up as we did with hundreds of tons of unidentified priority stores for fighting units dumped in Jubail." The JSG will not provide the CF with a single establishment for clearly defining and providing logistics sustainment for CF deployed operations. Rather, the JSG will continue the ad hoc nature of support to deployed operations by only managing theatre activation, initial deployment and final closeout.

## Economy.

This principle pertains to the accomplishment of an objective with the fewest possible resources. "Logistic discipline promotes economy, efficiency and effectiveness. The absence of logistic discipline, however, leads to less-than-optimal allocation of resources." The JSG envisions a role in the coordination of the movement from Canada for the deployment of the joint task force (JTF) but it is not clear how it will insert itself into a decision making process as JTF units transition from their force generator to the operational command of the TFC. Under most deployment scenarios, Units will prepare themselves and the force generator will declare them fit for deployment. At this stage, the unit will have completed its initial logistics provisioning and the JSG will be unable to enforce logistics discipline. This may be further compounded when Units augment

<sup>23</sup> Logistic Plan Review, 8.

<sup>&</sup>lt;sup>22</sup> Major General M.S. White, <u>Gulf Logistics</u>: <u>Blackadder's War</u>. (London, Brassey's, 1995), 246.

their initial logistics sustainment because they are unfamiliar with the JSG and uncertain of its ability to provide them with the logistics sustainment that they will require.

Attainability (cooperation).

Attainability refers to the feasibility of providing the essential support services required to commence operations. In the context of the JSG and operational level logistics sustainment, the JSG must be able to bring together the logistics resources of all units in Theatre to optimize Theatre level logistics sustainment. The JSG is yet to define how it will optimize its operational effectiveness without a role in supporting routine operations. To reiterate, the JSG will super-impose itself in a logistics sustainment process that will only be used in the support of deployed CF operations. Depending on time lines between operational deployments, the JSG's procedures may become outdated or inefficient due to a lack of use. A similar organization, the Combat Support Group<sup>24</sup> existed in CF doctrine for years and has not been deployed to coordinate a large-scale operation or exercise.

## Sustainability.

Sustainability of the JSG is critical to the success of the operation. In the most difficult circumstance, the deployment of the MCF, the JSG COO would require the call-up of all earmarked augmentation forces from across the CF. The feasibility of calling forward support personnel from force generators as the CF prepares to deploy almost one third of its trained military personnel is not addressed. To achieve an effective deployment, force generators require their support personnel to prepare the forces for deployment.

<sup>24</sup> Log Sp to CF Ops 1-9.

In the event of deployment of a sustained Vanguard-sized mission, the JSG COO approach is to activate the Theatre and complete Rotation 0, with force generators tasked to form and train subsequent rotations. It is not clear what level of work has been completed to determine force generators ability to undertake this additional tasking.

Survivability.

A risk associated with the JSG is effective force protection to its deployed operations. The JSG COO outlines a significant in-theatre footprint and fails to address the matter of force protection. Nevertheless, force protection is a Commander's responsibility and the JSG would be provided force protection by the TFC, commensurate with the risk.

## JSG Summary.

The NMSC project and the Croatia BOI identified the requirement for a single organization managing an effective and efficient logistics system capable of meeting the logistics requirements to mount, deploy and sustain CF operations. The proposed solution to this challenge is the establishment of the JSG. Using American and British logistics principles, it has been demonstrated that the JSG will not meet the stated requirement. While the JSG has the potential to meet the TFC's requirements to coordinate Theatre RSOM, the JSG will not address the broader goals outlined in the NMSC project charter and the Croatia BOI.

The primary rationale for proceeding with the NMSC project was to eliminate the ad hoc nature of support CF deployed operations. In examining the deployment process for military operations in Southwest Asia, Somalia, Haiti and the Balkans, "... the same lessons were relearned during each operation because the responsibilities for improving

the deployment process were diffused among many different organizations and not focused on the requirements of the joint force."<sup>25</sup> The JSG will be faced with significant challenges in coordinating the actions of units for which it has no authority and will be attempting to bring together the disparate activities of NDHQ staff with the tactical concerns of force generators, with little authority beyond its powers of persuasion.

## **EMERGING LOGISTICS TRENDS.**

A number of trends are emerging in logistics sustainment as a result of the Gulf War and military operations in the Balkans. "Focused Logistics is the fusion of logistics information and transportation technologies for rapid crisis response, deployment and sustainment, the ability to track and shift units, equipment and supplies even while en route, and delivery of tailored logistics packages and sustainment directly to the warfighter." The concept of 'focused logistics' is evolving in an effort to capture the power of information management in the prosecution of logistics objectives with a goal of improving the level of support to deployed military forces. This is a significant change in approach to logistics sustainment and reflects lessons learned in military operations in the 1980s and 1990s. "Efforts to create smaller, more responsive logistics operations are under way in the [U.S.] Army (under the name of 'Velocity Management') and in the [U.S.] Air Force ('Lean Logistics')." The aim of these initiatives is to improve the effectiveness of logistics sustainment. It is not clear how the JSG would be able to

-

<sup>&</sup>lt;sup>25</sup> R.C. Bronson, <u>Improving the Joint Deployment Process</u>, (Army Logistician, Jul/Aug 2000, Vol 32), 2.

<sup>&</sup>lt;sup>26</sup> Doctrine for Joint Log Ops D-1.

<sup>&</sup>lt;sup>27</sup> D.A.Schrady, <u>Combatant Logistics Command and Control for the Joint Forces Commander</u> (Monterey, Naval Postgraduate School, 1998), 58. Hereafter Combatant Logistics C2 for the JFC

design and implement similar strategic initiatives to enhance the support to deployed CF operations.

#### AN ALTERNATE MODEL.

The American military responded to the requirement to sustain deployed military operations in a different fashion. The United States Transportation Command (USTRANSCOM) was established in 1987 with a goal to integrate global air, land and sea transportation. USTRANSCOM evolved from its initial charter to direct transportation assets in wartime operations to its current mandate to meet all of the transportation needs of the Department of Defense. "Operation Desert Shield/Desert Storm highlighted the difficulty of transitioning from peacetime to combat operations. As a result, the secretary of defense gave USTRANSCOM control of all strategic transportation assets during peace time to ease the transition to wartime support."<sup>28</sup> USTRANSCOM is one of nine unified commands and is commanded by a four-star general officer. The Commander-in-Chief (CINC) USTRANSCOM leads a team of 1,277<sup>29</sup> military, civilian, reserve and contractor personnel to provide a complete range of transportation and movement control services for the American military. 30 Among the Directorates that are integral to USTRANSCOM are: Intelligence; Operations and Logistics; Plans and Policy; Command, Control, Communications and Computer Systems; Command Surgeon; and, Force Protection. Subordinate Commanders are: Air Mobility Command; Military Sealift Command; and, Military Traffic Management

<sup>&</sup>lt;sup>28</sup> United States. Department of Defense. <u>United States Transportation Command: Transforming Global Mobility and Distribution Pamphlet 35-1</u> (Washington, DC: Department of Defense, October 2001), 2. Hereafter USTRANSCOM - Global Mobility

<sup>&</sup>lt;sup>29</sup> Not including the staff of subordinate commands.

Command (MTMC). While each of the Services maintains the obligation to provide the logistics support of its forces,<sup>31</sup> USTRANSCOM is the single agency responsible to plan, coordinate and execute the movement of logistics material around the world, in peace and wartime. To achieve this, USTRANSCOM brings together a complete understanding of logistics sustainment for the Army, Navy and Air Force.

This consolidation of mobility expertise has created a dynamic organization that is able to focus its efforts on improving the mobility of American military forces.

Originally established to execute at the strategic level, this concentration of force has created excellence at the complete range of military operations. "The MTMC staff – from the JTMO [Joint Traffic Management Office] traffic managers to the contract staff and the post operators – all served the goal of delivering combat power to its place of business. Getting down to the installation level, understanding the requirements, and working with industry to tailor a solution are efforts that form the basis of the Revolution in Military Logistics." MTMC has evolved from being the Army's ground logistics organization to the centre of expertise for movement control for U.S. forces.

Regional CINCs are responsible for the planning and execution of military operations in their Area of Responsibility (AOR). In the planning process, CINCs did not have the resources available to assess the impact and feasibility of the deployment process on different courses of action (COAs). In response to this emerging requirement, USTRANSCOM established '911' teams to satisfy the requirement. "... the 911 team is

<sup>30</sup> USTRANSCOM – Global Mobility, 5.

<sup>&</sup>lt;sup>31</sup> Doctrine for Joint Log Ops, vi.

<sup>&</sup>lt;sup>32</sup> D. Lamb, <u>JTMO – Delivering the Revolution in Military Logistics</u> (Army Logistician, Jan/Feb 99), 45.

a group of planners from USTRANSCOM, deployed on short notice to assist in regional CINC contingency planning efforts. These planners represent USTRANSCOM's planning and operations divisions. At the appropriate time, they deploy to provide transportation expertise to the supported CINC as early as the COA-development phase."

Although initially established as the strategic transportation command, the concentration of transportation and movement expertise has made significant enhancements at the operational and tactical levels of military operations.

USTRANSCOM's management of the American military's global patient medical evacuation system<sup>34</sup> is beyond the scope of this paper but serves as another illustration of the benefit of consolidating expertise.

The above examples illustrate the synergy of consolidating expertise to focus on optimizing the global mobility of American forces. Instrumental to this success, are unity of command and the continuity of supporting all operations. While the CF JSG has unity of command over forces assigned to it in theatre, it does not exercise command over other units of the CFSS that will be supporting its deployed operations. The JSG will not support routine CF operations in Canada and operates only at the theatre level.

USTRANSCOM operates at the strategic level and has developed a deployable capability to support theatre level operations.

<sup>&</sup>lt;sup>33</sup> D.A. Meyer, <u>Transportation Strategy</u>, (Military Review, Jan/Feb 2001), 33.

<sup>&</sup>lt;sup>34</sup> USTRANSCOM - Global Mobility, 13.

#### The Canadian Context.

The CF could meet the challenge of the NMSC Project by adopting a framework similar to that established by USTRANSCOM. In the Canadian context, this would mean that a CF Transportation Command (CFTC) would be established to meet the movement and transportation needs of the CF in both peace and in supporting deployed operations. In keeping with the USTRANSCOM model, first line logistics support would remain integral and strictly the purview of the army, navy and air force. Operational and strategic level logistics sustainment would be consolidated under the Commander, CF Transportation Command (CCFTC). CCFTC would assume command of the regular and reserve military and civilian personnel currently performing second and third line logistics functions in the CF, and be tasked with providing a deployable theatre-level RSOM for the TFC.

Transition could be effected to CFTC in a straightforward manner because the CFSS serves as the backbone for logistics support to Canada's army, navy and air force. The new organization would consist of military and civilian logistics professional across the CF. Transition to support military operations outside Canada would be efficiently met by the deployment of the military personnel working throughout CFTC. Civilian indeterminate personnel would provide the continuity and enable the organization to seamlessly recruit contracted reserve and civilian logistics professionals to cover off any military personnel required to deploy on operations to provide theatre level support.

This paper will now examine the potential effectiveness of such an organization using the same American and British logistics principles that were used to assess the JSG.

### Responsiveness (foresight).

The establishment of CFTC would result in an organization that could plan its existence around being responsive to the needs of the CF. Tasked with the coordination of transportation and movement in peace and wartime, CFTC would develop expertise in satisfying the logistics sustainment needs of the CF. The organization would be responsive as it supported the army, navy and air force in Canada in daily operations and as CF forces deployed around the world. In developing an understanding of the nuances of how each of the services fight, they would be able to meet their unique demands for logistics sustainment and synchronize their support to meet the operational requirements of the CF. By maintaining the logistics sustainment function in both peace and wartime, CFTC would be critical in voicing logistics issues and be effective in maintaining logistics discipline to ensure the optimization of scarce resources. The organization could not work in isolation; rather, as illustrated in USTRANSCOM's example of the development of 911 teams to support Regional CINCs, CFTC would provide the expertise that would allow senior leaders to make informed decisions on the allocation of scarce resources, including strategic lift.

# Simplicity.

CFTC would train and prepare for war with the same organization as they intend to employ while prosecuting routine military objectives. CFTC would deploy its military personnel to support deployed CF operations. As the organization would be in existence in daily operations, a seamless transition could be effected to support deployed operations.

# Flexibility.

One of the benefits of the establishment of CFTC would be a single point of contact for logistics support issues that would be capable of responding to a variety of different operational challenges.

#### Economy.

As a result of their daily experience in supporting the Army, Navy and Air Force, a dedicated CFTC will provide the TFC with visibility of the sustainment picture throughout the theatre of operations. CFTC will be able to provide the TFC with timely advice on redistribution of supplies and be effective in demonstrating to the TFC the limitations of the logistic pipeline.

## Attainability (cooperation).

Lieutenant General Pagonais in his book on Gulf War logistics outlined the importance of logistics. "Logistics is the careful integration of transportation, supply, warehousing, maintenance, procurement, contracting, and automation into a coherent functional area; in a way that prevents sub optimization in any of these activities; and in a way that permits and enhances the accomplishment of a given goal, objective or mission."<sup>35</sup> This concentration of force will facilitate the development of comprehensive logistic contingency plans, including the support of a sustained Vanguard-sized mission. CFTC will bring together the logistics resources of all units in Theatre to optimize Theatre level logistics sustainment because of its regular involvement in meeting the logistics support requirements of the CF. Units will be familiar with the services

-

<sup>&</sup>lt;sup>35</sup>Moving Mountains, 2.

provided by CFTC and will be comfortable with support being provided in the same fashion, whether deployed or operating in Canada.

#### Sustainability.

"Operational reach has its logistic limits, a finite range beyond which the logistic system can not support the combat force or their desire to maintain effective operations." Drawing on the USTRANSCOM experience, one can observe the effectiveness of consolidating sustainment expertise to bring about creative solutions using today's information technology.

#### Survivability.

A risk in the establishment of CFTC is that the Command becomes isolated from the military forces it is tasked with supporting. During periods of time without deployed operations, there exists an organizational tendency to fail to concentrate on the need to deploy and sustain forces. As with the JSG, force protection remains an issue to be addressed by the TFC, commensurate with the risk.

## **CFTC Summary**.

The NMSC project and the Croatia BOI identified the requirement for a single organization managing an effective and efficient logistics system capable of meeting the logistics requirements to mount, deploy and sustain CF operations. Adoption of the CFTC would result in a single organization capable of meeting the logistics challenges of supporting the CF in peacetime and as it deploys around the world on operations. CFTC will work on a routine basis in supporting CF units and will develop expertise to address and incorporate evolving logistics trends to support deployed operations. This approach

\_

<sup>&</sup>lt;sup>36</sup> Logistic Plan Review, 13.

would eliminate the ad hoc nature of support to deployed CF operations and bring together the units and personnel already in existence throughout the CF. This would focus attention and expertise on meeting the logistic challenges of supporting CF operations and avoid re-learning from past mistakes.

### **SUMMARY.**

Since the end of the Cold War, the CF has embarked on a significant number of operational deployments. Through this period of high operational tempo it has become clear that the CF is not organized to allow the efficient support of deployed operations. The specific deficiencies identified in arriving at this conclusion are an ad hoc approach to logistics sustainment to deployed CF operations and the lack of a single organization responsible for strategic and operational level logistics support to deployed operations.

Recent examples from the Falklands and Gulf War illustrate the potential negative outcomes of an ad hoc approach to logistics sustainment. The aim of the NMSC Project and the Croatia BOI is to have a single organization that is able to provide an effective and efficient logistics system capable of meeting the CF's logistics requirements. One single organization needs to be in charge of getting the right thing to the right place at the right time. An inability to effectively support a deployed operation can have a significant impact on the ability of the Commander to meet the assigned objective.

Measuring the potential effectiveness and efficiency of the JSG concept was accomplished using American and British principles for logistic support of joint operations. In the earliest stages of operational planning, the JSG's primary concern will be to activate and bring together augmentees, deploy, and establish a Theatre RSOM facility. Regardless of how transitions from peacetime to deployed operations are

managed, the CF will employ a different logistics sustainment model between peacetime and wartime. The JSG will be superimposed on an existing system which will be modified to support deployed operations. The JSG will not provide the CF with a single establishment for clearly defining and providing logistics sustainment for CF deployed operations. Rather, the JSG will continue the ad hoc nature of support to deployed operations by super-imposing its activities on the existing logistics sustainment for the CF. This may result in units further augmenting their initial logistics supplies because they are unfamiliar with the JSG and uncertain of its ability to provide them with the logistics sustainment that they will require. The feasibility of pulling support personnel from force generators as the CF prepares to deploy its MCF has not been addressed by the JSG. The JSG will be faced with significant challenges in coordinating the actions of units for which it has no authority and will be attempting to bring together the disparate activities of NDHQ staff with the tactical concerns of force generators, with little authority beyond its powers of persuasion. Rather than creating an organization as the single contact point for logistics sustainment, the JSG will be yet another obstacle to creating a single organization for the support of deployed CF operations.

USTRANSCOM is an American military agency that plans, coordinates and executes the movement of logistics material around the world, in peace and wartime. This consolidation of mobility expertise has created a dynamic organization that is able to focus its efforts on improving the mobility of American military forces. USTRANSCOM illustrates the synergy of consolidating expertise to focus on optimizing the global mobility of American forces. Instrumental to this success are unity of command and the continuity of supporting operations in peace and wartime.

This paper examined the feasibility of using the USTRANSCOM model in a Canadian context. The CFTC would meet the movement and transportation needs of the CF in both peace and in supporting deployed operations. This would result in an organization that could dedicate its resources to the needs of the CF. By maintaining the logistics sustainment function in both peace and wartime, CFTC would be critical to implementing new logistics concepts and be effective in maintaining logistics discipline to ensure the optimization of scarce resources. CFTC would train and prepare for war with the same organization as they intend to employ while prosecuting routine military objectives. A dedicated CFTC will be effective in demonstrating to the TFC the limitations of the logistic pipeline. CFTC will be able to bring together the logistics resources of all units in Theatre to optimize Theatre level logistics sustainment because of its regular involvement in meeting the logistics support requirements of the CF. Units will be familiar with the services provided by CFTC and will be comfortable with support being provided in the same fashion, whether deployed or operating in Canada. This concentration of force will facilitate the development of comprehensive logistic contingency plans, including the support of a sustained Vanguard-sized mission.

## **CONCLUSION.**

The JSG will not meet the NMSC Project Charter and Croatia BOI mandate to provide the CF with a single organization able to eliminate the CF's history of dealing with logistics support to deployed operations in an ad hoc fashion. By super-imposing its operations on an existing logistics sustainment framework and only providing the support for the initial and final rotation of deployed operations, the JSG will perpetuate the haphazard approach to logistics sustainment of deployed CF operations.

The CF has the genesis of an effective organization that could provide singular focus in the delivery of logistics support to the CF, in daily operations within Canada, as well as deployed operations around the world. The disparate parts of a CF Transportation Command exist within ADM (Mat) and the second line supply organizations of the ECSs. Bringing these activities together would allow the CF to embark on a new approach to logistics sustainment issues and would meet the challenge laid out in the Croatia BOI report and the Project Charter for the NMSC.

## Bibliograpy

- Bronson, Robert C. "Improving the Joint Deployment Process." <u>Army Logistician</u> Jul/Aug 2000, Vol 32.
- Caldwell, Michael P. "Operational logistics 2010." Carlisle Barracks, PA: US Army War College, 1997.
- Canada. Department of National Defence. "Canadian Forces Joint Support Group Command and Control Concept." Ottawa: National Defence, 2000.
- Canada. Department of National Defence. <u>Canadian Forces Operations:</u> <u>B-GG-005-004/AF-000</u>. Ottawa: National Defence, 2000.
- Canada. Department of National Defence. "Canadian Operational Naval Logistics Doctrine." Ottawa: National Defence, Draft 01 21 Sep 01.
- Canada. Department of National Defence. <u>Final Report: Board of Inquiry Croatia</u>. Ottawa: National Defence, 2000.
- Canada. Department of National Defence. <u>Logistic Support to Canadian Forces</u>
  <u>Operations: B-GG-005-004/AF-013</u>. Ottawa: National Defence, 1998.
- Canada, Department of National Defence, <u>National Military Support Capability (NMSC)</u> Project: BG-01.029. Ottawa: Department of National Defence, August 2001.
- Canada, Department of National Defence, <u>Project Charter, G0283, National Military Support Capability Project</u>, Ottawa: Department of National Defence, 15 February 2002.
- Coburn, John G. "Linking today's logistics with the 21st-century force." <u>Army</u> 48 no. 10 Oct 1998: 127-128.
- Coulson, Carla, Col. "Sustaining Joint and Combined Operations: Reflections on the Adequacy of Doctrine." Toronto: Canadian Forces College, 2000.
- Engel, Gary R. "Joint and combined theater logistics: the future reality." <u>Army</u> Logistician 31 no. 3 May-June 1999: 34-37.
- English, Allan, Dr. "Command, Control, Communications Issues Canadian Forces Troops on Peacekeeping Missions." Summary of Some Sustainment Issues, Prepared for the Board of Inquiry Croatia.
- Farmen, William N. "Wanted: A NATO Logistics Headquarters." <u>Joint Force Quarterly</u> Spring 1998: 62-66. <u>www.dtic.mil/doctrine/jel/jfq\_pubs/spring98.htm</u>

- Gregory, Christopher L. "Evolution of NATO Multinational Logistics Doctrine: The Link Between Funding and Logistics." Commander in Chief, U.S. Navy Europe, Jul/Aug 99. <a href="https://www.navyup.navy.mil/lintest/julaug99web/gregory.htm">www.navyup.navy.mil/lintest/julaug99web/gregory.htm</a>
- Higgins, Peter J. "Joint operations and logistics support." <u>Army Logistician</u> 30 no. 3 May-Jun 1998: 18-20.
- Lamb, Don. "JTMO Delivering the Revolution in Military Logistics." <u>Army</u> Logistician Jan/Feb 1999.
- Marquardt, Kent S. "Devising operational logistics doctrine." <u>Army Logistican</u> 32 no. 1 Jan-Feb 2000: 28-33.
- Meyer, Dwain A. "Transportation Strategy." Military Review Jan/Feb 2001, 31-40.
- Morin, Jean, and Richard H. Gimblett. <u>Operation Friction 1990 1991: The Canadian Forces in the Persian Gulf.</u> Toronto: Dundern Press, 1997.
- NATO. <u>Combined Joint Task Force Headquarters Doctrine</u>. Brussels: NATO, 1997. "bbs.cfc.dnd.ca/Admin/jointdocs/natopubs/cjtf\_hq\_doctrine/cjtftoc.html"
- O'Konski, Mark J. "Revolution in Military Logistics: An Overview." <u>Army Logistican</u> 31 no. 1 Jan-Feb 1999: 10-15.
- Pagonis, Lieutenant General William G. <u>Moving Mountains Lessons in Leadership and Logistics from the Gulf War</u>. Boston: Harvard Business School Press, 1992.
- Reich, John M. "Force XXI sustainment operations." <u>Military Review</u> 76 no. 4 Jul-Aug 1996: 48-53.
- Schrady, David A. "Combatant Logistics Command and Control for the Joint Forces Commander." Monterey: Naval Postgraduate School, 1998.
- Schrady, David A. "Sea-Based Logistics and Lessons from the Falklands." Monterey: Naval Postgraduate School, 2000.
- Simpson, J.A. and Weiner E.S.C. <u>The Oxford English Dictionary</u> Clarendon Press: Oxford, 1989.
- Stewart, Walter L. "Deployment, sustainment and the future." <u>Army Logistician</u> 32 no. 6 November-December 2000: 8-10

- United Kingdom. Ministry of Defence. <u>JWP 0-10: United Kingdom Doctrine for Joint Operations 3<sup>rd</sup> Study Draft</u>. London: Department of Defence, 1998. "bbs.cfc.dnd.ca/Admin/jointdocs/britpubs/uk\_joint\_ops\_doctrine/ukjopstoc.html"
- United States. Department of Defense. <u>JP 4-0: Doctrine for Logistics Support to Joint Operations</u>. Washington, DC: Department of Defense, 2000. <u>www.dtic.mil/doctrine/jel/logistics.htm</u>
- United States. Department of Defense. <u>JP 5-00.2</u>: <u>Joint Task Force Planning Guidance and Procedures</u>. Washington, DC: Department of Defense, 1999. www.dtic.mil/doctrine/jel/planning.htm
- United States. Department of Defense. <u>United States Transportation Command:</u>
  <u>Transforming Global Mobility and Distribution Pamphlet 35-1</u>. Washington, DC:
  Department of Defense, October 2001. www.transcom.mil
- Van Creveld, M. <u>Supplying War Logistics from Wallenstein to Patton</u>. Cambridge: Cambridge University Press, 1977.
- Weadon, Captain(N) M. Bryn. "Canada's Joint Sustainment Co-ordination Capabilities." Toronto: Canadian Forces College, 2000.
- Wheelock, Lieutenant Commander Kevin R. "Review Criteria for the Logistic Plan." <u>Joint Forces Quarterly</u> Spring 1997.
- Wheelock, Lieutenant Commander Kevin R. "Logistic Plan Review Criteria for the Operational Level of War." Newport, R.I.: Naval War College, 1996.
- White, Major General M.S. Gulf Logistics: Blackadder's War. London: Brassey's, 1995.
- Wilhelm, Karen S. "Historical perspective on the future of military logistics." <u>Air Force</u> Journal of Logistics 21 no. 3 1997: 36-39.
- Witt, Jeffrey D. and Shawn P. Feigenbaum. "Extending the logistics revolution at the operational and tactical levels." Army Logistician 31 no. 1 Jan-Feb 1999: 41-43.
- Wood, Donald F. et al. <u>Contemporary Logistics</u>. Upper Saddle River, NJ: Prentice Hall, 1998.