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# CANADIAN FORCES COLLEGE - COLLÈGE DES FORCES CANADIENNES AMSC 7 - CSEM 7

# JOINT SUSTAINMENT AT THE OPERATIONAL LEVEL:

# **A BRIDGE TOO FAR?**

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## ABSTRACT

Sustainment at the Operational level is a National responsibility and Joint in nature. This paper argues that the Canadian Forces continues to have difficulty exercising operational level joint sustainment of its forces, in both domestic and international situations. The paper examines recent domestic and international deployments where Canadian soldiers, sailors and air personnel were employed within an operational level context, in doing so the author demonstrates that there are specific principles that must be applied in order to exercise true joint sustainment, and that the Canadian Forces has yet to achieve this level of ability.

# JOINT SUSTAINMENT AT THE OPERATIONAL LEVEL: A BRIDGE TOO FAR?

Making the CF an integrated, joint force is a long-standing goal, but to achieve this will require a major change of mindset.<sup>1</sup> - Brigadier-General G.W. Nordick

#### Introduction

It is a widely recognized fact that nations engaged in combined operations are responsible for their own integral sustainment.<sup>2</sup> However, in an effort to reduce unnecessary waste and competition for limited host nation resources, most alliances and coalitions have recognized the scope for mutual support including bilateral agreements and lead nation status for specific areas of provisionment.<sup>3</sup>

Regardless of the architecture of operational level missions in which the Canadian military is involved; sustainment is necessarily a National, joint endeavour. Except for a few very common items, most sustainment issues remain firmly within the domain of Canadian national supply lines. Common items such as diesel fuel and perhaps food can be procured through coalition or host nation support agencies; however, the vast majority

<sup>&</sup>lt;sup>1</sup> Brigadier-General G.W. Nordick, "Can The CF Develop Viable National Joint Capabilities?" *Canadian Military Journal* 5, no. 2 (Summer 2004): 63.

<sup>&</sup>lt;sup>2</sup> Department of National Defence, B-GG-005-004/AF-000 *Canadian Forces Operations* (Ottawa:DND Canada 2000), 27-1.

<sup>&</sup>lt;sup>3</sup> CFC, "CJTF HQ Doctrine", 9-2.

of sustainment will be controlled through Canadian processes. For example, although Canada has allowed its personnel to be treated in some role two and three medical facilities belonging to allied nations, it insists upon provision of blood products and pharmaceutical items from Canadian sources. In addition, the majority of the equipment that we use from ships to aircraft to small arms, have been Canadianized and require Canadian only parts to support them. It is for this reason that all support at the operational level, domestic or international, will be the responsibility of the Canadian Commander and therefore, by its very nature, joint.

This paper argues that the Canadian Forces continues to have difficulty exercising operational level joint sustainment of its forces, in both domestic and international situations. The paper will examine recent domestic and international deployments where Canadian soldiers, sailors and air personnel were employed within an operational level context, in doing so the author will demonstrate that there are specific principles that must be applied in order to exercise true joint sustainment, and that the Canadian Forces has yet to achieve this level of ability.

To commence, it is important that certain terms used throughout this paper are clearly understood. Sustainment is defined as "the act of supplying to a Force consumables, and the replacing of combat losses and non-combat attrition of equipment in order to maintain its combat power for the duration required to meet the force's objectives."<sup>4</sup> Support formations and units provide sustainment to a Force. For the purposes of this paper, support will be defined in its broadest sense, that is to say activities grouped in functions such as logistics (supply, transport, movement, postal,

<sup>&</sup>lt;sup>4</sup> Department of National Defence, B-GJ-005-300/FP-000 *CF Operations Manual* (Ottawa: DND Canada, Ratification Draft Ver. 10, 28 June 2004), 30-1.

food services, finance), military engineering, equipment maintenance (land, sea and air), personnel support (including health services) and military policing. Operational level support begins at the point of entry into theatre and is concerned with those activities that set conditions for the execution of tactical level battles, engagements and activities.<sup>5</sup>

#### Background

In 1968, the Canadian Army, Royal Canadian Air Force and Royal Canadian Navy were amalgamated to form the Canadian Forces. Some observers have assumed in the past that this amalgamation has led to a greater degree of jointery within the CF than in other more traditionally organized militaries.<sup>6</sup> However the reality is that the Canadian Forces has continued to train and exercise in mostly single service environments and has done little to prepare itself for joint operations either within Canada or overseas. As pointed out recently by Commander Land Doctrine and Training, "We struggle to maintain even the semblance of national joint study in our service schools, and we have a very limited joint capability at our 'joint' staff college. There is very limited national joint participation in our major annual environmental exercises, and even the scenarios we use in training rarely foresee Canadian joint participation in Coalition operations."<sup>7</sup>

Canadian doctrine regarding support to CF Operations is rudimentary in nature. The keystone publication for joint support to CF operations is in "very early"<sup>8</sup> draft form and will not be published for some time. The overarching Canadian joint doctrinal

<sup>&</sup>lt;sup>5</sup> *Ibid.*, 30-7.

<sup>&</sup>lt;sup>6</sup> This seems to be an impression caused by the fact that we are a Unified Force. Various references to this assumption may be found. For example Jeremy R. Stocker, "Canadian Jointery," *Joint Force Quarterly*, (Winter 1995-96): 117.

<sup>&</sup>lt;sup>7</sup> Nordick, "Can The CF Develop Viable National Joint Capabilities?", 66.

<sup>&</sup>lt;sup>8</sup> Major Colin Richardson, e-mail to author, 24 September2004.

publication is *CF Operations Manual*, which is undergoing a significant update and is available in Ratification Draft form at this time. In the absence of a joint support manual, however, Chapter 30 of the *CF Operations Manual* does provide some idea of the direction that the CF wishes to pursue in this area. Canadian doctrine places the responsibility of support to CF elements squarely upon the shoulders of the Canadian National Commander (CNC).<sup>9</sup> In an operational level construct this individual would most likely be the Commander of the Canadian Joint Task Force. Although sustainment is cited as one of the main responsibilities of the CNC, national and allied doctrine advocates the use of a subordinate Support Component or National Support Element to actually plan and prosecute sustainment of the campaign. Specifically, the JTF Support Component "controls and manages the in-theatre terminus of the strategic lines of communication and focuses on providing common user materiel and services where centralization will promote enhances operational effectiveness and economies of scale."<sup>10</sup>

Key to the success of this doctrinal construct is that the separate environments have support systems that are based on common CF procedures and systems. In a doctrinal sense this would assume that the environments, within their specific tactical level doctrine, would organize, train and follow standard operating procedures that would provide a relatively seamless degree of cooperation between the operational and tactical level when deployed in a joint context.

*CF Joint Operating Concept 2012*, produced in draft form in 2003, moves one step beyond our current doctrine and provides a vision where "Joint Operations …will be

<sup>&</sup>lt;sup>9</sup> National Defence, CF Operations Manual, 30-1.

<sup>&</sup>lt;sup>10</sup> *Ibid.*, 30-8.

the status quo"<sup>11</sup> and where the term "Joint" would be interpreted in a much broader sense to include interoperability with other Government Departments and non-Government Organizations. Although this Joint Operating Concept is not a Government policy statement it is certainly an attempt by the Canadian Forces to articulate how the military will force generate, command, and sustain maritime, land and air units to participate within existing Alliances at the Joint operational level. The stated objective is to optimize jointness at the operational level and frequent reference is made to "joint thinking" and "joint warriors." As with our current doctrine, Joint Concept 2012 states that the environments will retain their distinctive capabilities but that synergies and complementary capabilities will be exploited to maximize the potency of the Joint Force.<sup>12</sup> Let us turn now to an examination of some recent operational level scenarios in which Canada has been involved. The intent is to look quickly at the application of doctrinal principles and the resulting level of joint sustainment achieved during Operation FRICTION and Operation ASSISTANCE and then moves on to an in-depth analysis of joint sustainment during the initial phase of Operation APOLLO.

#### **Operation FRICTION**

On 10 August 1990, Prime Minister Mulrooney announced that Canada would participate as part of an American led Coalition to deter further aggression by the Iraqi Forces under command of Saddam Hussein.<sup>13</sup> The original Canadian contribution to Operation (Op) FRICTION consisted of three ships deployed to the Arabian Gulf region

<sup>&</sup>lt;sup>11</sup> Brigadier-General J.G.J.C. Barabé, *CF Joint Operating Concept 2012*. National Defence Headquarters: file 1150-3 (DPDT), 24 July 2003. enclosure.

<sup>&</sup>lt;sup>12</sup> Barabé, CF Joint Operating Concept 2012, 2.

<sup>&</sup>lt;sup>13</sup> Major Jean H. Morin and Lieutenant-Commander Richard H. Gimblett, *Operation Friction*, 1990 – 1991: The Canadian Forces in the Persian Gulf (Toronto: Dundurn Press, 1997), 30.

in August 1990 along with their integral Maritime Helicopter Detachments. Although this Canadian contingent was joint by nature, it was considered a naval entity and remained under command of Maritime Command (MARCOM) through a designated Task Group Commander. A robust operational level sustainment architecture was established in Bahrain, also under direct command of MARCOM and with its own Commander. This organization (CANMARLOGDET) provided the ships and helicopters with a full range of support including logistical, engineering and personnel services.<sup>14</sup> Less than 6 weeks later an air task force of CF-18 aircraft, along with support personnel and a company of infantry for security purposes, was added to the mission. In January 1991 a 100 bed hospital with a company of infantry for security was deployed to the same Area of Operation under a different mission (Op SCIMITAR).<sup>15</sup>

Op FRICTION marked the birth of joint logistics coordination at the strategic level in Canada<sup>16</sup> predominantly because conflicting demands from Op FRICTION and Op SALON (a domestic operation commanded by Force Mobile Command) were taxing the military resources of Canada to unprecedented levels.<sup>17</sup> In addition, this Operation saw the formalization in 1991 of the joint staff system in National Defence Headquarters (NDHQ)<sup>18</sup> and the establishment of the Chief of Defence Staff as the Commander of all CF operations.

At the operational level, despite commencing the mission as a naval task force under direct command of MARCOM, the addition of a significant air component resulted

<sup>&</sup>lt;sup>14</sup> Morin and Gimblett, *Operation Friction...*, 73.

<sup>&</sup>lt;sup>15</sup> *Ibid.*, 227.

<sup>&</sup>lt;sup>16</sup> Captain(N) Bryn M. Weadon, "Canada's Joint Sustainment Co-Ordination Capabilities," (Toronto: Canadian Forces College Advanced Military Studies Course Paper, 2000), 3/29.

<sup>&</sup>lt;sup>17</sup> Morin and Gimblett, *Operation Friction...*, 37.

<sup>&</sup>lt;sup>18</sup> General R.R. Henault, "Jointness, Expeditionary Force Projection and Interoperability: The Parameters of the Future," (Toronto: Canadian Forces College 2003 Air Symposium Paper, 2003), n.p.

in the establishment of a Joint command structure. The actual mechanics of selecting, training and deploying the new Joint Headquarters took over one month; however, on 6 November 1990, Commander Canadian Forces – Middle East (CANFORME) assumed command of the Canadian elements in theatre. Unfortunately, sustainment at the operational level never achieved even a basic level of jointness. HQ CANFORME had been established with a Deputy Chief of Staff Support and a rudimentary J4 staff. One week after the Headquarters opened, the J4 staff was increased by 60% and a J1 staff was added to the organization.<sup>19</sup> The staff was responsible to coordinate Canadian sustainment; however, the CANMARLOGDET remained under command of MARCOM and the Canadian Support Unit (CSU (Q)), which had deployed with the air component remained focused on support to their fighter base.<sup>20</sup> The majority of sustainment issues were passed back to NDHQ through either MARCOM or Canadian Forces Europe (from CSU (Q)). This situation remained unchanged throughout the remainder of Op FRICTION, reducing the effectiveness of operational level sustainment, thereby placing this burden upon the strategic level staff in Ottawa.

Examining this Operation, one can see that attempts to establish joint sustainment met with limited success. In fact the official account of the participation of the CF in the First Gulf War suggests that the depth and quality of logistic and personnel support was slight, with luck playing no small part in the success of the operational level sustainment.<sup>21</sup> At least two different logistic lines of communication were used throughout the Operation. The Naval Task Force drew the majority of its support from MARCOM through CANMARLOGDET while the remainder of the force relied upon

<sup>&</sup>lt;sup>19</sup> Morin and Gimblett, *Operation Friction*..., 123.

<sup>&</sup>lt;sup>20</sup> *Ibid.*, 125. <sup>21</sup> *Ibid.*, 262.

CSU (Q). Asset visibility was terrible, a common problem throughout the Coalition; over half of the containers deployed to the theatre had to be opened to determine contents, ownership and destination.<sup>22</sup> The ability of the CANFORME staff to coordinate or prioritize the flow of supplies or personnel was severely curtailed by their small size and the lack of command and control over the Canadian logistic units in theatre. There was absolutely no ability to predict sustainment requirements based upon the campaign plan, and the majority of operational level sustainment planning fell on the J4 Log staff in NDHQ.

#### **Op ASSISTANCE**

Operation ASSISTANCE was a domestic operation that took place from 21 April to 30 May 1997,<sup>23</sup> six years after Op FRICTION where CF joint doctrine emerged.<sup>24</sup> The Manitoba Government formally requested support from the Canadian Forces to assist primarily in the mitigation of property damage although other tasks, including support to law enforcement, were performed by the CF as the situation evolved. Canadian Joint doctrine was applied to command and control of the situation from the initiation of the operation. Originally, Commander Land Forces Western Area was appointed Commander Joint Task Force. The nucleus of the JTFHQ was pulled from Headquarters 1 Canadian Mechanized Brigade Group (CMBG). The remainder of 1 CMBG, augmented by Reserve and other Army assets acted as the Land Component while a small Air Component and Maritime Component also existed. On 29 April, the CF Joint

 <sup>&</sup>lt;sup>22</sup> Schrady, "Combatant Logistics Command and Control for the Joint Force Commander," 54.
<sup>23</sup> The Operation was originally named Op NOAH but this name was changed to Op Assistance on 24 Apr 97 due to an expansion in scope.

<sup>&</sup>lt;sup>24</sup> Henault, "Jointness, Expeditionary Force Projection and Interoperability...", n.p.

Headquarters arrived and took over responsibility for the Operation. The Maritime and Air Components were expanded and the Land assets were divided into two Task Forces under command of Commander LFWA and Commander 2 CMBG who had deployed with his Brigade from Ontario. A separate Support Component Commander was not appointed, likely due to the limited nature of the operation; however, it is clear from the various after action documents that the operation-level joint sustainment planning was conducted by a number of agencies including the JFHQ J4 cell as well as J4 Mov in NDHQ. Bed-down facilities were provided through 17 Wing in Winnipeg and local procurement became the normal method of resupply of non-common items. Personnel issues such as joining instructions and Reserve pay were dealt with through NDHQ.

Operation ASSISTANCE was considered extremely successful.<sup>25</sup> The opportunity to evaluate joint doctrine was not lost on the planners, and much of the after action process was spent examining this issue. While joint sustainment per se was not discussed at any great length, some issues can be extrapolated from the existing information.

It is clear from many of the observations raised that the lack of Joint SOPs and jointly trained staff officers were two of the major concerns during Op ASSISTANCE. For example, only three of 35 major/lieutenant commanders working in the JTFHQ were Staff College graduates<sup>26</sup> and only one senior officer (temporarily assigned) on the Maritime Component Commander's Staff had received any joint training.<sup>27</sup> Planning

<sup>&</sup>lt;sup>25</sup> Lieutenant-General R.R. Crabbe, *Op ASSISTANCE – Lessons Learned Staff Action Directive*. (National Defence Headquarters: file 301-2-4-2 (J3 Lessons Learned 2), 19 November 1997), A-2/13.

<sup>&</sup>lt;sup>26</sup> Crabbe, *Op ASSISTANCE* ..., A-4/13.

<sup>&</sup>lt;sup>27</sup> Major-General N.B. Jefferies, *Operation (Op) ASSISTANCE Post Operation Report (POR)*, (Office of the Commander, Land Force Western Area: file 3350-105-26 (Op ASSISTANCE), 16 July 1997), Annex A, Commander's Comments.

methods, order writing conventions and even map symbology were not standard across the Services; the Maritime Component GPS systems were programmed to use latitude and longitude while the Air and Land Components systems relied on map grid references.<sup>28</sup> Frequent references to the incompatibility of communications systems and the ignorance of other environments' abilities demonstrate the lack of joint planning or joint thinking within the CF at the time. The first issue addressed in the Lessons Learned Staff Action Directive was that "a greater understanding of how various components operate is required by all component staffs and by the JHQ staff."<sup>29</sup>

From a sustainment perspective, evidence exists to suggest that, once again, multiple lines of communication were in use. Components frequently made arrangements for transport of supplies and personnel without coordinating their efforts through the JTFHQ resulting in unauthorized diversion or cancellation of chartered aircraft as well as use of commercial air when CF resources were available.<sup>30</sup> JTFHQ staff planners had difficulty grasping the differences in tactical employment of different components,<sup>31</sup> understanding and coordinating sustainment was equally as difficult for them. Fortunately, due to the relatively short timeframe of this Operation, significant sustainment issues did not arise.

## **Op APOLLO**

Operation APOLLO was the Canadian contribution to the US led Campaign Against Terrorism, dedicated to the destruction of international terrorism within the

<sup>&</sup>lt;sup>28</sup> Jefferies, *Operation (Op) ASSISTANCE ...,* Anx A, Detailed Report para 2k.

<sup>&</sup>lt;sup>29</sup> Crabbe, *Op ASSISTANCE* ..., A-4/13.

<sup>&</sup>lt;sup>30</sup> *Ibid.*, A-7/13.

<sup>&</sup>lt;sup>31</sup> Jefferies, *Operation (Op) ASSISTANCE...*, Anx A, Commander's Comments.

United States Central Command (CENTCOM) area of responsibility. Although political guidance for the Canadian commitment was sought early in the process, actual direction was not received from the Prime Minister until well after Commander Joint Task Force South-West Asia (JTFSWA) had deployed and after naval, air and ground elements had been offered to CENTCOM for inclusion in the Campaign Against Terrorism.<sup>32</sup> In fact the political guidance was established through an interdepartmental working group and submitted to Government by the CDS/DM on 13 November 2001. The Prime Minister endorsed this submission on 14 November but the actual written direction did not reach the CF until 22 November. Meanwhile, HMCS Halifax had been transferred under Operational Control to CENTCOM on 7 November and the remainder of the elements offered to CENTCOM on 9 November. Because of the lack of strategic guidance and also because the mission was extremely fluid in nature, there were no national or military strategic goals to help guide the development of the force structure and therefore the initial CF strategic planning focus was on developing a "list of potential force contributions."<sup>33</sup> "The primary objective was to be seen helping the US with the overall plan<sup>34</sup> rather than furthering any national strategic goals.

Despite lack of clarity at the national strategic level, a Canadian Joint Task Force (JTFSWA) was established early on in the planning process in accordance with Joint doctrine. The JTFSWA HQ was co-located with CENTCOM HQ in Tampa, Florida and all CF elements were placed OPCOM to Commander JTFSWA. The final CF commitment to Op APOLLO included six ships, a single CC 150 Airbus Strategic Airlift

 <sup>&</sup>lt;sup>32</sup> Deputy Chief of the Defence Staff, Operation APOLLO Lessons Learned Staff Action Directive. (National Defence Headquarters: file 3350-165/A27, April 2003), B-4/41.

<sup>&</sup>lt;sup>33</sup> DCDS, *Operation APOLLO*...,B-5/41.

<sup>&</sup>lt;sup>34</sup> *Ibid.*, B-5/41.

Detachment, a Tactical Airlift Detachment (TAL) of three CC 130 Hercules aircraft, two CP 140 Aurora Maritime Patrol Aircraft (MPA), and the 3 PPCLI Battle Group. All of these elements were placed OPCON to CINCCENT as required. In an uncanny and disappointing reflection of the approach during Op FRICTION, it was not until after the commitment of the 3 PPCLI BG that the decision was made to establish a joint support structure for Op APOLLO forces despite the fact that the CF strategic planning process was essentially complete by end-October.<sup>35</sup>

Initially an ad hoc environmental approach was taken to the support of each deployed element. The ships derived their General Support from a shore-based Forward Logistic Site (FLS), which in turn communicated with one of the naval force generating bases in Canada. The MPA Detachment deployed with a support organisation from its home base of Greenwood, which was subsequently augmented by personnel from Canadian Forces Base Trenton who deployed with the TAL Detachment. This organisation, amalgamated from the support personnel from two different Bases on very short notice, was responsible for Close and General support of the two air detachments as well as the establishment and protection of Camp Mirage. Command and control of the air support element was unclear since both air detachments reported to Commander JTFSWA and the support personnel who deployed with them remained under command of their respective air detachment commanders. The PPCLI deployed with integral Close Support and relied on the Secure Lines Of Communication (SLOC) Company in Qatar for General Support through the International Lines of Communication (ILOC) system established with the United States (US). As a result of this sustainment architecture,

means. Naval personnel were continually transferred back to Canada for service reasons with little or no reference to JTFSWA or NDHQ. Vehicle, ship and aircraft parts were shipped directly from force generating bases in Canada using a variety of means including commercial couriers. There was no in-theatre prioritization of demands through the CFSS, and one unit did not even have access to the upgraded version of the supply software making tracking and ordering items a nightmare. The naval, air and ground assets in theatre operated in blissful ignorance of each other with regards to support. The JTFSWA J4 and J1 staffs were inadequate and nine time zones away from the deployed forces. Due to the lack of depth in the headquarters, the number of staff was reduced at night to one Duty Officer. This resulted in delays or misunderstandings regarding sustainment issues since the Duty Officer was not always *au fait* with logistic or personnel support matters.<sup>36</sup>

In March 2002 the decision was taken to form a National Support Unit (NSU) in order to provide coordinated, joint support to the Canadian elements in theatre. A Commanding Officer was appointed and approximately twenty additional positions were identified to form the NSU headquarters. The FLS, air support element and SLOC Coy were all transferred under command of the NSU, which in turn was OPCOM to Commander JTFSWA. A National Medical Liaison Team was also deployed to arrange Role 2 and 3 support, track Canadian casualties and manage the supply of unique national medical stores.<sup>37</sup>

The formation of the NSU was long overdue and difficult to establish effectively. There was great confusion, especially within the deployed naval forces, regarding the role

<sup>&</sup>lt;sup>36</sup> Author, based on personal experience as Deputy Commanding Officer National Support Unit, Op APOLLO Roto 0.

<sup>&</sup>lt;sup>37</sup> DCDS, Operation APOLLO...,B-22/41.

of the NSU and its relationship with deployed Canadian ships. In turn, the logistic operations planning staff of the NSU was drawn predominantly from the Air Force and had little deployed experience, no operational level experience and certainly no knowledge of the intricacies of joint support.<sup>38</sup>

In accordance with joint doctrine, the NSU could be considered a JTF Support Group. The JTFSWA J1 and J4 staffs continued to work on long-term issues, but little by little the NSU assumed some responsibility for the operational level support of the Canadian elements in theatre. Due to the lack of staff in Tampa, many personnel and logistic issues were coordinated directly with the NDHQ J Staff, keeping Tampa informed of progress. In many cases both the NSU and JTFSWA were incapable of influencing operational level planning, especially regarding the ILOC, which was owned and directed by the US and served directly through the J Staff in Ottawa.<sup>39</sup>

As can be surmised from the description of the Operation, use of common logistic lines of communication was poor even after the establishment of a Joint sustainment structure. The ILOC system continued to be used predominantly for materiel support of the land element while direct sustainment flights from Canada were scheduled to meet the needs of the air detachments, and to some extent the naval forces. Although coordination became better over time, there was still a significant use of commercial couriers and airline carriers to move personnel and materiel into and out of theatre, especially for the naval task force.<sup>40</sup>

Asset visibility, although better than during Op FRICTION, was still problematic. The ILOC system was not designed to accept Canadian data forcing the opening and

<sup>&</sup>lt;sup>38</sup> Author. <sup>39</sup> *Ibid*.

<sup>&</sup>lt;sup>40</sup> *Ihid*.

repacking of loads so as to ascertain destination and contents. In some cases Canadian flags were used on pallets to indicate Canadian loads. Coalition logistic staffs had difficulty tracking assets as well; some loads were off-loaded before reaching final destinations and "lost". In one case NSU personnel traveled to a cargo staging area to individually inspect all pallets waiting transit to identify Canadian cargo that had disappeared from movement control logs. In addition, communications between the strategic and operational level logistic staffs was hampered by incompatible secure data transmission systems. In some cases personnel arrived in theatre with no prior warning being passed to the NSU due to security reasons.<sup>41</sup>

JTFSWA and the NSU were unable to gain effective control over the priority of flow of personnel and materiel. Again, limited success was achieved after a number of months, but in many cases the first level at which a complete picture was available was at the strategic level in NDHQ.

The staff at JTFSWA acted purely in a liaison capacity and was unable to produce any coordinated plans in support of the Commander's operational level goals. This was highlighted by Brigadier-General (now Major-General) M. Gauthier, Commander JTFSWA.<sup>42</sup> There were some limited successes; the NSU capably planned and executed support to the 3 PPCLI BG forced rest programme, providing transportation, recreational opportunities, laundry and cashier services. However neither the NSU nor JTFSWA J4/J1 staff was intimately involved in the draw down aspects when the Battle Group withdrew from theater in August 2002.<sup>43</sup>

<sup>&</sup>lt;sup>41</sup> *Ibid*.

<sup>&</sup>lt;sup>42</sup> DCDS, Operation APOLLO...,B-9/41.

<sup>&</sup>lt;sup>43</sup> Author.

The Op APOLLO Lessons Learned Staff Action Directive highlighted some "national concerns about sustainability."<sup>44</sup> Specifically, "... the formation of an NSU should have begun immediately on warning for the operation. The formation and deployment of the NSU should have occurred in conjunction with the combat components...The decision to delay organization and deployment of an NSU caused deployability uncertainties, both for the combat components and ultimately the NSU itself. There was no joint support plan, no joint logistic doctrine or unit SOPs. The unit was cobbled together in theatre from single service elements."45

The major assumption that the CF elements would deploy to disparate areas of the AOR and that a joint sustainment plan was inappropriate proved to be largely invalid<sup>46</sup> and flies in the face of Canadian joint doctrine. The fact that "it was assumed, mistakenly, that sustainment could be addressed in later planning efforts"<sup>47</sup> underlines the lack of joint thinking at the strategic level and within the Force Generating staffs within the environments. The initial lack of joint sustainment could have been mitigated by following Joint SOPs in the design of single service support entities. If the FLS, SLOC Company or Air support element had been designed with Joint operations in mind, then moving to a Joint sustainment architecture would have been a smoother and more successful endeavour.

 <sup>&</sup>lt;sup>44</sup> DCDS, *Operation APOLLO*...,B-3/41.
<sup>45</sup> *Ibid.*, B-26/41

<sup>&</sup>lt;sup>46</sup> *Ibid.*, B-36/41

<sup>&</sup>lt;sup>47</sup> *Ibid.*, B-36/41

#### Measuring Canadian Success at Joint Sustainment

Canadian and Allied doctrine provides us with a plethora of principles that can be applied to war, tactical actions or logistic support. The accepted Canadian Principles of Logistic Support are Foresight - minimizing shortfalls in support by ensuring adequate reserves are available; Simplicity – through the use of established Standard Operating Procedures (SOPs), sound doctrine and established priorities; Flexibility – the ability to adapt to changing situations; Economy – the provision of support adequate to accomplish the mission; Cooperation – among planning staffs and the early inclusion of logistic planners in the planning process; Self-Sufficiency – providing combat elements with limited self-sufficiency thereby giving the operational commander more flexibility; and Visibility – proper control and coordination of all stocks moving into, out of and through the theatre of operations.<sup>48</sup> Current practice has been for military planners to study and follow these principles to ensure effective support. Examination of these principles from a joint sustainment perspective, and taking into account some of the lessons derived from this paper's examination of recent operational level deployments, suggests that there is a smaller and more focused list of what truly makes joint sustainment a success from an operational level perspective.

*Asset visibility.* Without the ability to track in-transit as well as in-theatre assets (including personnel), the Support Commander has a very limited ability to predict the sustainment situation. Common supply chain and asset management systems aid in the ability to maintain an accurate "sustainment common operating picture"; however, well defined Joint SOPs for reporting must be used throughout the environments so that assets

<sup>&</sup>lt;sup>48</sup> Department of National Defence, B-GG-005-004/AF-000 *Canadian Forces Operations* (Ottawa: DND Canada, 2000), 26-3 to 27-3.

that may not necessarily have much import to the tactical commander but that are of operational level interest are tracked and reported.

Despite the fact that a lack of Joint SOPs was raised as an issue during Op ASSISTANCE, there were none in existence for the use of the Op APOLLO NSU five years later. Even without written SOPs it is fairly obvious that major challenges with asset visibility exist. The CF is working hard to design a bar coding system that will aid in managing and tracking large amounts of materiel, however the system is only in trial stages. Given the experience during Op APOLLO, it seems clear that the CF must work towards a standardized tracking with the US if it intends to use the ILOC system for future deployments.

*Prioritization of flow.* Adequate prioritization of sustainment assets will support the success of the Joint Commander's plan. Competing environmental demands for scarce commodities such as personnel, fuel and repair parts must be examined against the operational level campaign. It is a common occurrence in high tempo operations that all sustainment is demanded using the highest priority available; it is therefore critical that an operational level staff be capable of balancing the needs of the environments against the overall success of the campaign.

During Op FRICTION in-theatre commanders started to order supplies using the highest delivery codes in order to guarantee highest priority of delivery to theatre. Unfortunately this resulted in entire aircraft loads of defensive stores being delivered before repair parts and medical supplies that were in greater demand. In none of the case studies examined in this paper was the operational level staff robust enough or adequately trained to undertake this important aspect of joint sustainment. The reality of Canadian style Joint sustainment is that the J-Staff in NDHQ assume the lion's share of responsibility for Joint sustainment activities and the operational level headquarters' involvement is, at times, minor in nature.

*Coordinated planning in support of the Operational Commander*. Those involved in sustainment must be aware of the issues surrounding the support of a joint force. Environmental training institutions and CF level war colleges must emphasize the differences between Services and ensure that planners have a good understanding of the needs of the environments. Increased emphasis on joint exercises, joint planning opportunities and the establishment of liaison officers within subordinate component commanders' planning staffs should become standard.

Underlying all of these issues is the fact that without an understanding and appreciation of joint sustainment within the environments, and a practice of planning for joint support even at the tactical level, effective sustainment at the operational level will never be achieved in Canada. One way of helping to achieve this may be through the Joint Support Group.

*Joint Operating Concept 2012* describes four critical Joint enabling capabilities necessary to achieve Joint Operating vision,<sup>49</sup> among them is an enhanced sustainment capability built around the CF Joint Support Group. The creation of the Joint Support Group (JSG) is at the core of the CF National Military Support Capability. The JSG provides an operational level support organisation capable of supporting contingency operations, domestic and international. Selected resources will be assigned to the JSG on a full time basis and augmented as necessary with forces earmarked, equipped and trained to provide operational level support to contingency operations. Once deployed it will

<sup>49</sup> *Ibid.*, 1

serve as the in-theatre link between strategic support provided from Canada and the support provided to the Combatant Components of a CF task force.<sup>50</sup> Although it currently only has a limited capability for theatre activation/deactivation and the provision of some command and control of an operational level support element, the JSG will only gain full functionality in 2013.<sup>51</sup>

While the JSG will certainly provide the Operational Level Commander with a better degree of coordination, there are some deficiencies. The Unit does not address the medical or personnel administration aspects of sustainment, and its reliance on augmentation from the individual services will likely detract from its overall cohesiveness as a Unit. There have been suggestions that the JSG concept should be further expanded to include a Joint Support Command which would allow for the development of an operational level support structure for the CF.<sup>52</sup> While this idea would certainly help in improving Joint sustainment in an operational context, it is unclear how it would be applied within a "peacetime" scenario in Canada.

#### CONCLUSION

Although the Canadian Forces has been a unified force for some time, we are not a true Joint Force. The lack of Joint doctrine and the opportunity for formal training and practice inhibits our ability to truly coordinate our activities at the operational level.

<sup>&</sup>lt;sup>50</sup> Department of National Defence, *National Military Support Capability: Joint Support Group Concept of Operations*. (Ottawa: DND Canada, 2004), 1/24.

<sup>&</sup>lt;sup>51</sup> PMO NMSC, Project Timeline provided via e-mail.

<sup>&</sup>lt;sup>52</sup> Colonel Denis Bouchard, "Le Groupe de soutien interarmées (GSI), prélude à un Commandement de Soutien Interarmées (CSI) et un chef d'état-major soutien interarmées (CEM J4)," (Toronto: Canadian Forces College Advanced Military Studies Course Paper, 2003), 26/32.

While it is true that the future of Canadian experiences at the operational level will likely take place in a coalition setting where elements are placed under OPCON of differing Component Commanders, the reality of our equipment design, medical service standards and personnel support regulations dictates that at least some portion of our sustainment architecture will remain joint. Canadian JTF Commanders will likely find that their primary focus is on Canadian National aspects of any Coalition operation rather than actual control of the forces under their Operational Command. The one area in which they will retain full influence and responsibility is the operational level sustainment of the force.

Environmental doctrine should flow from the keystone CF manuals. In reality environmental doctrine that exists predates most CF-level Joint doctrine and discusses the reality of Joint sustainment issues in very little detail. The advent of the JOG and the JSG will certainly go a long way towards providing a ready source of staff planners and commanders who have operated in a joint environment if only in theory. However, the JSG is still seen as an army-heavy organization and does not address all aspects of sustainment and the majority of its force will be generated from the environments on an ad hoc basis, which further decreases the cohesiveness and Jointness of the organization. The lengthy timeline associated with the inception of the full capability of the JSG may also be an indication of a lack of willingness within the CF and in Government to invest the resources required to bring fruition to the project.

For over thirteen years, the CF has strived towards Jointness. This paper has established three principles that should be used to further develop the ability of the Canadian Forces to sustain its soldiers, sailors and air personnel at the operational level. Without a great amount of hard work in the next few years, the Canadian Forces will likely continue to waste time and precious assets in an inefficient manner of sustainment, managed centrally through the strategic staff in Ottawa. Unfortunately, major conflict drives us to Jointness, but the peaceful lulls in between tend to make us forgetful and unwilling to invest scarce resources.

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