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CANADA'S JOINT SUSTAINMENT CO-ORDINATION CAPABILITIES

By /par Capt(N)/capv Bryn M. Weadon

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ABSTRACT

This paper will demonstrate that the proposed Canadian Forces Joint Support Group fails to address the shortfalls that exist in Canada's ability to effectively sustain Joint operations. The paper begins with a look at operational sustainment during Op FRICTION and post Op-FRICTION sustainment doctrine. After describing how the Canadian Forces provided operational sustainment in the Former Yugoslavia, the paper highlights sustainment issues raised during two recent reviews, including the Board of Inquiry Croatia. The proposed organizational structure and responsibilities of the Canadian Forces Joint Support Group are then analyzed. Three alternative models are also examined as potential solutions. The paper concludes that, while the proposed Joint Support Group is an improvement over current Canadian Forces doctrine, the Joint Support Group does not provide a single point of focus for personnel and logistics sustainment issues.

CANADA'S JOINT SUSTAINMENT CO-ORDINATION CAPABILITIES

“The objective of a logistic effort is the creation and sustained support of combat forces.”¹

Rear Admiral Henry E. Eccles
United States Navy

INTRODUCTION

After almost 40 years when military activity, training, and sustainment was almost solely directed towards operations against the USSR and its allies, the final decade of the 20th century saw major changes in the nature of Canada's overseas military operations. The 1990s began with the phased repatriation of ground and air forces from Europe following the end of the Cold War. At the same time Canada became involved in an expedition to the Persian Gulf to expel Iraq from Kuwait. Focus then shifted to Somalia, Rwanda, and the Former Yugoslavia, with a series of missions under United Nations and NATO umbrellas. The decade ended with an air war and significant ground operations other than war (OOTW), in Kosovo.

As the type of military operations changed, the pace of those operations intensified. The Canadian Forces was required to adapt the mechanisms used to co-ordinate combat force sustainment; this during a period of major reductions in military personnel, infrastructure, and financial resources. While the strategic level saw adoption of the continental staff system, with its J1 Personnel and J4 Logistics Staff to co-ordinate sustainment, operational level sustainment relied on ad hoc arrangements tailored to specific missions. In January 2000, the Board of Inquiry Croatia identified sustainment deficiencies that had contributed to the high level of stress Canadian Forces members

experienced during Op HARMONY.² While not directly linked to the Board of Inquiry recommendations, in March 2000, the Defence Management Committee recognized the shortfall in sustainment of deployed joint operations by endorsing the development of a formed operational-level National Military Support Capability, subsequently renamed the Canadian Forces Joint Support Group.

AIM

The aim of this essay is to demonstrate that the proposed Canadian Forces Joint Support Group fails to address the shortfalls that exist in Canada's ability to effectively sustain Joint operations. For the purposes of this essay, sustainment includes all aspects of logistics, including medical, as well as personnel support and personnel management. The essay will conclude with a look at three alternate operational level sustainment models to determine if any of these currently existing models provide a better solution for Canada.

OPERATION FRICTION

In August 1990 the Canadian Forces embarked on two operations. The first, Op SALON, was a domestic operation to restore internal security near two First Nations communities in Quebec. The second was Op FRICTION, Canada's commitment of forces to the Persian Gulf to assist in the implementation of United Nations Resolution 660. While the Army was able to provide the necessary sustainment for Op SALON, it quickly became apparent that national resource co-ordination would be required to support Op FRICTION. All materiel requests were passed to the Logistics and

Movement Co-ordination Centres at National Defence Headquarters (NDHQ), subsequently renamed J4 Logistics and J4 Movements.³ This marked the birth of joint logistics co-ordination at the strategic level in the Canadian Forces.

A strategic level logistics success of Op FRICTION was the completion of major equipment modifications to the deploying ships and Sea King helicopters in less than 14 days. This success was achieved through a well co-ordinated focussed effort, led by NDHQ, which saw both military and civilian personnel working 24/7 to achieve the necessary results. These efforts involved procurement staff located in both Ottawa and Halifax, strategic movement of newly acquired equipment to Halifax from throughout Canada as well as from offshore, and the maritime and air technical personnel who conducted the modifications. It does not appear that the same level of strategic direction was in place for personnel management as was being provided for logistics. For example, Maritime Command and Air Command personnel staffs, along with the newly created J1 Personnel staff in NDHQ, worked hard to identify suitable personnel to fill vacant billets. On several occasions both Maritime Command and Air Command competed against each other for the same individual.⁴

Another area of difficulty at the national level was the co-ordination of scarce air transport assets. Prior to Op FRICTION, Air Transport Group (ATG) maintained a small cell in Ottawa next to the National Defence Operations Centre (NDOC). This cell was able to provide NDOC staff with information on ATG operations; however, it did not have the authority to task aircraft. All requests for schedule changes, whether generated

by NDHQ or the Environmental Commands, were sent to the Air Command Operations Centre in Winnipeg for prioritization.⁵ The existing air transport tasking methods proved unresponsive with the need for short-notice diversion of aircraft in order to transfer materiel from other bases or defence contractors. The ATG cell in Ottawa was expanded and became the National Defence Movement Control Centre (NDMCC), part of J4 Movements. NDHQ began issuing aircraft taskings through the NDMCC, shifting the Air Command Operations Centre to the status of an information addressee.⁶

While seen as a positive step, the change in the Air Transport tasking process generated tensions between Trenton, Winnipeg, and Ottawa, highlighted by the following two examples. On 14 September 1990, Canada announced the deployment of CF-18s from Europe to the Persian Gulf region. Under pressure to respond quickly, even though a final destination in the Gulf region had not been determined, NDHQ placed the necessary transport aircraft on standby in Lahr. After eight days sitting on the tarmac awaiting deployment orders, and forcing the cancellation of other scheduled tasks, the aircraft were finally released for other missions. The eventual deployment did not commence until 2 October. According to Major Jean Morin, Canada's Gulf War historian, this violated the air transport principle of "... ATG should have been told what needed to be moved, when it needed to be moved, when the loads needed to get there, and be left to accomplish the task in the most efficient way."⁷ Command and control of an in-theatre CC-144 Challenger, allocated for command and liaison, also caused difficulties. ATG believed that the Commander of the Canadian Forces Middle East (CANFORME) should submit each flight request to ATG. The ATG five-day planning

cycle was not responsive enough to meet Commander CANFORME's rapidly changing requirements, and so NDHQ intervened, assigning operational control of the aircraft to CANFORME.⁸

In-theatre operational logistics was initially co-ordinated through two separate organizations. The Navy established a CANMARLOGDET in Bahrain, tasked to provide the deployed ships and Sea King helicopters with the full range of sustainment, including naval/aircraft engineering support and personnel services.⁹ Canadian Forces Europe established the Canadian Forces Support Unit (Qatar) to provide traditional base support functions for the deployed aircraft as well as for the ground security forces from 4 Brigade Lahr. Responsibility for third-line aircraft maintenance and personnel sustainment was retained in Canadian Forces Europe.¹⁰ CANFORME, an operational level headquarters, was established in Bahrain on 6 November 1990, with a Deputy Chief of Staff Support that contained both a J-1 Personnel and J-4 Logistics section.¹¹ While operational command of both CANMARLOGDET and CFSU (Qatar) was eventually transferred to Commander CANFORME, the principal support relationships with Maritime Command and Canadian Forces Europe remained unchanged.¹²

These complex support relationships caused difficulty on 1 January 1991, 15 days prior to the commencement of the air campaign, when previously planned changes in the Canadian Forces Europe command and control structure went into effect. Air Command in Winnipeg became responsible for supporting all deployed aircraft, except the Sea Kings, while Mobile Command assumed sustainment responsibility for the ground

security forces.¹³ Canadian Forces Communications Command was responsible for sustaining the 90th HQ and Signals Squadron. When the 1st Canadian Field Hospital was deployed in February 1991, CANFORME then had to deal with five different sustainment relationships for its various tactical elements. CANFORME HQ did not have the staff or authority to provide necessary operational level sustainment co-ordination. Fortunately, the logistical and personnel demands once deployment occurred were not significant and did not constrain tactical level success.¹⁴

POST OP-FRICTION DOCTRINE

Following Op FRICTION and the withdrawal of Canadian Forces from Europe, each logistics function proceeded to develop its own theatre support capability. Five distinct national level units formed Canada's National Military Support Capability (NMSC). In-theatre supply, maintenance, finance, and transportation would be provided by a Canadian Support Group (CSG). The Canadian Medical Group (CMG) would be responsible for third-line medical and dental requirements. An Engineer Support Unit (ESU) would provide combat engineering, construction engineering, fire protection, and geomatic support. Security and Military Police (SAMP) services were the responsibility of a SAMP Unit while a Communications and Information Systems (CIS) Unit would control operational-level CIS facilities and resources. These national level units were designed to report directly to the Task Force Commander, along with the Task Force Headquarters and the three environmental component commanders, as depicted in Figure 1.¹⁵

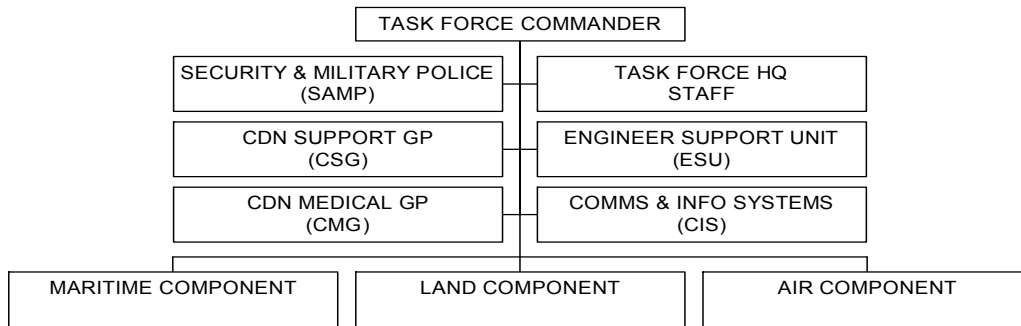


Figure 1: Current Task Force Organization

This structure had several shortfalls. First, for each of the five areas covered by the National Level Units, a separate functional staff existed within the Task Force Headquarters. The Task Force Headquarters staff were responsible to assist the Task Force Commander in “... planning, coordinating, and supervising the execution of operations and training, and arranging the support required by the Task Force to accomplish its mission.”¹⁶ With both the NMSC and the Headquarters staff charged with similar responsibilities, this doctrine did not provide single points of focus for sustainment responsibilities that both tactical level headquarters and the strategic staff in NDHQ could deal with.

Second, for the most part, the five NMSC units described above were a notional capability that existed only on paper. It was estimated that 6500 personnel across the five NMSC units would be required to support a Main Contingency Force of 12,000 personnel. While the required individuals existed throughout the Canadian Forces, unit generation would be a complex task involving six force generators and 13 force providers. The NMSC had little dedicated equipment, no formal collective training, and

a lack of formal NMSC generation plans. Accordingly, this NMSC capability was never exercised.¹⁷

Finally, the issue of personnel sustainment was not addressed by the NMSC concept. Responsibility for force generation remained with the three Environmental Commanders for operational occupations and the Assistant Deputy Minister (Personnel) for common support occupations. The Task Force Headquarters J-1 was assigned responsibility for personnel management; however, many of the necessary staff resources resided within J-3 SAMP, J-4 Log, J-4 Fin, J-4 Mov, and J-5 Legal. Provision of personnel services, when the NMSC was activated, would also be split amongst several distinct national level units. Resources were not established at the operational level to co-ordinate manpower distribution, including casualty replacement, and accounting for personnel was difficult.¹⁸

Having identified that the planned NMSC was largely notional and did not incorporate a personnel sustainment component, we will now look at how sustainment was actually conducted in a major theatre of operations.

SUSTAINMENT IN THE FORMER YUGOSLAVIA

In late March 1992 Canada began operations in the Former Yugoslavia, a mission that is ongoing. The initial commitment for Op HARMONY, Croatia, consisted primarily of an infantry battalion group and a Canadian field engineer regiment. Both

units deployed to the Former Yugoslavia from 4 CMBG in Lahr, while 4 CMBG was in the process of being disbanded and its personnel and equipment repatriated to Canada.¹⁹ Op HARMONY was a United Nations mission operating under the financing and sustainment regulations of the United Nations; therefore a dedicated third-line support unit was not established. A limited National Support Element was assigned to co-ordinate United Nations, Host Nation, and Canadian sustainment to the deployed forces.²⁰

In September 1992 a second infantry battle group was deployed, this time to Bosnia-Herzegovina as Op CAVALIER. Although in support of a United Nations resolution, this force was not funded or sustained by the United Nations. Logistics support was provided by a Canadian Contingency Support Group, designated Op MANDARIN.²¹ Every six months until its eventual redeployment in early 1996, the Contingency Support Group was regenerated from a range of logistics personnel throughout the Canadian Forces. Biannual personnel rotations were also required for the operational forces within both Op HARMONY and Op CAVALIER, except for the Engineering Regiment whose commitment was not extended beyond March 1993 due to a lack of sufficient combat engineering personnel. Throughout the four-year period, force generation remained primarily an Army function, with limited support or co-ordination from the NDHQ J-1.

The Army was not the only Environmental Component operating in the Former Yugoslavia. From 1992 to 1995 several Canadian warships and maritime patrol aircraft

operated in and over the Adriatic Sea as part of Op SHARPGUARD. Sustainment was provided through a NATO Forward Logistics Site in Italy. Canadian transport aircraft flew regular supply flights into Sarajevo. With the exception of the weekly resupply flights that would visit both Op SHARPGUARD and Op MANDARIN, sustainment between the various missions in the Former Yugoslavia was not co-ordinated at either the operational or strategic level. This did not change even when the Air Force commenced CF-18 operations from Italy.²²

In 1995, activation of the NMSC was commenced under Op COBRA - the planned evacuation of United Nations troops, in a hostile environment, from the Former Yugoslavia. While the planned mission was cancelled, a subsequent analysis of identified significant shortfalls in the ad hoc NMSC generation process.²³

SUSTAINMENT ISSUES

In 1994, Dr. Franklin C. Pinch conducted a detailed review of the human resources impact of Canada's participation in peacekeeping missions. He noted that the "... CF operational force structure, doctrine and training continued to reflect the primacy of the conventional war-fighting role, ..." ²⁴ Dr. Pinch identified significant shortfalls in the preparation and training of support contingents, recommending that a formal preparation program be established for all personnel deploying to a peacekeeping mission. When personnel with peacekeeping experience were surveyed, respondents highlighted deficiencies in every area of personnel support.²⁵ Dr. Pinch's report recommended specialized, well-integrated support structures and a comprehensive

personnel support system that tracked personnel prior to deployment, while in-theatre, and following their return to Canada.²⁶

In 1999 a Board of Inquiry was ordered to investigate the possible causes for illness amongst Canadian soldiers who had served in Op HARMONY from 1993 to 1995. When stress was identified as a major cause of reported illnesses, the Board of Inquiry looked for factors that could have contributed to the high stress levels during this mission.²⁷ Sustainment was one of three major areas identified with significant deficiencies. The Board found that the reliance on augmentees and ad hoc units, combined with the lack of continuity in personnel employment immediately during the pre- and post-deployment phases, increased the stress level of individual soldiers. Shortfalls in both the medical and logistics systems, including the lack of surgical support and basic supplies such as water, heightened the level of frustration and concern amongst the soldiers.²⁸ One example identified by the Board of Inquiry of the limitations and frustrations the United Nations sustainment system placed on soldiers was that “... the supply system demanded that used body bags be returned to stores from the morgue.”²⁹

In addition to the specific findings and recommendations, the Board of Inquiry made a number of observations. The first was the need for a comprehensive human resource database capable of tracking all personnel deployed to an operational theatre, regardless of whether their stay is for six months or six days.³⁰ The need for this database was recently reconfirmed when Commanding Officers were required to manually canvas their personnel on a priority basis to determine eligibility for a new Peacekeeping medal.

The Canadian Forces is implementing a comprehensive human resource information management system, PeopleSoft, that will track all Regular Force and Primary Reserve personnel from enrolment until release. While PeopleSoft will eventually capture data for personnel who are posted or attach-posted to a theatre, further modifications will be required to track shorter term visits.

The other major sustainment observation was "... the requirement to establish a single operations centre to address all sustainment issues."³¹ While the focus of this observation was at the strategic level and the need for a single point of responsibility for support issues, this argument can also be applied when designing an appropriate operational level sustainment structure.

These two separate reviews by Dr. Pinch and the Board of Inquiry have highlighted a number of critical sustainment shortfalls during Canada's participation in the Former Yugoslavia. The shortfalls occurred in an operational theatre with ad hoc sustainment arrangements. We will now look at the proposed solution, the Canadian Forces Joint Support Group.

CANADIAN FORCES JOINT SUPPORT GROUP

As part of the reduction in Canadian Forces personnel strength, there was a need to reduce the maximum total NMSC personnel strength from 6500 to 3400. To accommodate this personnel reduction, as well as the shortfalls in the Canadian Forces' ability to generate national level units, in June 1999, a Military Occupational Structure

Working Group proposed the creation of a single composite theatre support component.³² A further study initiated by the Deputy Chief of Defence Staff recommended to the Defence Management Committee, in March 2000, the development of a formed NMSC capability. This capability would include four of the five previously identified National Level Units. The one exception was the CIS Unit that was recently integrated with a new Joint Signals Regiment. In June 2000, the NMSC Project Senior Review Board endorsed the proposed formation's name, Joint Support Group (JSG).³³

The primary role of the JSG is to provide or arrange national support for Canadian Forces Contingency Operations, up to and including sustainment of a 12,000 person strength Main Contingency Force. The JSG's focus will be on theatre activation and high readiness tasks. It will deploy to support the reception and initial employment phases of a new operation. The JSG would then be withdrawn, replaced by support personnel from the various force generators, and reconstituted for the next mission. Plans are being established for providing ongoing operational level support or long-term sustainment in exceptional circumstances.³⁴

JSG personnel will be at three separate states of readiness. The core element, employed fulltime with the JSG, will conduct most mission activation tasks. The remaining personnel, designated for potential employment with the JSG but otherwise employed with a force generator, will serve as either Primary Augmentation or General Augmentation. When the JSG deploys on a Contingency Operation as a Joint Task Force Support Group, the JSG will operate separately from, but located near, the Joint Task

Force Headquarters. As illustrated at Figure 2, the Commander of the Joint Task Force Support Group will report directly to the Joint Task Force Commander. For Routine Operations where existing command and control relationships are utilized, the JSG will be assigned to the Canadian Forces Joint Operations Group.³⁵

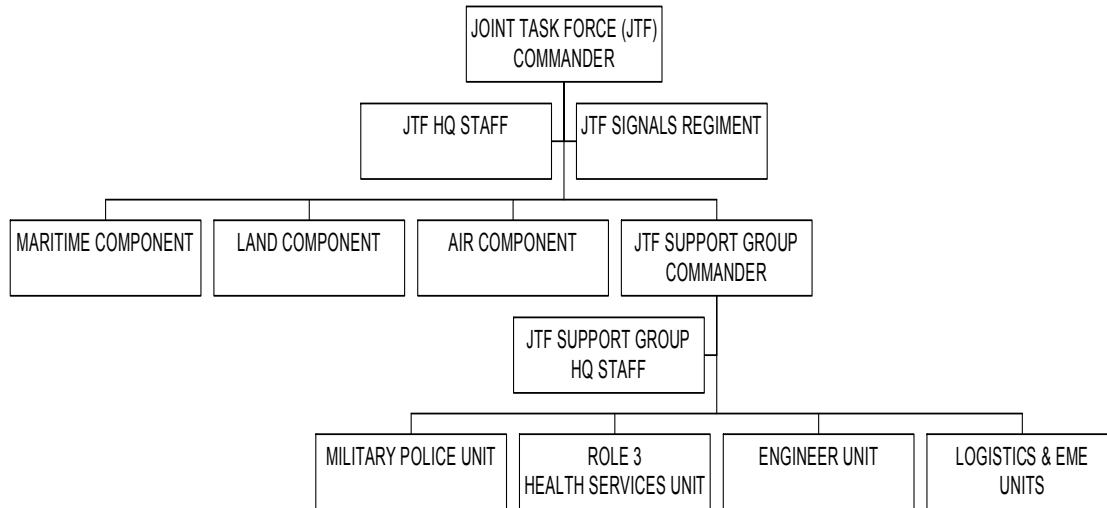


Figure 2: Proposed Joint Task Force Structure

The JSG will be tasked to assist in the preparation of specific Contingency Operation plans, although overall responsibility for this planning remains with the Joint Task Force Headquarters. When theatre activation occurs, the JSG will negotiate and implement in-theatre support arrangements. This includes Host Nation Support, use of private sector contractors under the Canadian Contractor Augmentation Program, and providing personnel to coalition logistics coordination organizations such as a NATO Multinational Joint Logistics Centre (MJLC). The JSG will be capable of splitting its resources in order to provide elements that can move forward with supported components

while maintaining a rear link to Canada. The JSG will also have a role in mission termination, including redeployment co-ordination.³⁶

ANALYSIS OF JOINT SUPPORT GROUP

The proposed JSG will provide the Canadian Forces with a formed unit that is focused on operational level sustainment co-ordination. Activating a Contingency Operation should be easier with a trained high readiness core element rather than identifying and deploying support personnel from throughout the Canadian Forces with insufficient time to receive the necessary training. With the JSG dedicated primarily to the operational level, NDHQ “J” Staff should be able to devote their efforts to strategic level sustainment activities. This will be especially beneficial for the NDHQ J4 Logistics Directorate, which now incorporates both the National Defence Logistic Co-ordination Centre and the National Defence Movement Co-ordination Centre. At present, J4 Logistics often finds itself working the same sustainment issue at the strategic, operational, and tactical levels.

Despite its benefits, the JSG will not provide a Joint Task Force Commander with a single point of responsibility for sustainment planning and co-ordination. For a Contingency Operation, both the Joint Task Force HQ staff and the Joint Task Force Support Group HQ have been assigned responsibility for co-ordination with Component and strategic level staff. This is also the case for Routine Operations when functioning as a Joint HQ and JSG HQ.³⁷ One example of this duplicate responsibility is the Task Force Surgeon assigned to the Joint Task Force Headquarters. The Task Force Surgeon

is the “... ultimate authority in-theatre with respect to health and professional issues ... but will not have any functional command responsibilities.”³⁸ The command responsibilities, along with the resources to provide health services, will rest with the Commanding Officer of the Role 3 Health Services Unit that forms part of the JSG. With these complex command and control relationships, it will be difficult for a Joint Task Force Commander to determine who is ultimately responsible for resolving a sustainment issue.

In contrast to the Task Force Surgeon, the Commanding Officer of the Military Police Unit, which forms part of the JSG, will concurrently serve as the Task Force Provost Marshal. The person occupying this position will have line responsibilities to the Joint Task Force Support Group Commander and a staff link to the Joint Task Force Commander. While this organizational structure violates the normal principle of separation between line and staff, the double-hatting does provide a single point of focus for military police issues. The same individual providing the Joint Task Force Commander with advice is then responsible for implementing the Commander’s decision. This arrangement should serve as a model for the Task Force Surgeon and other sustainment functions where the availability of suitably trained and experienced personnel are limited. This unorthodox design would also help to ensure a strong link is established prior to deployment between the Joint Operations Group, where the core staff for the Joint Task Force Headquarters are employed, and the JSG.

While the JSG structure provides a formed capability in most sustainment areas, it does not enhance the personnel management function and fully integrate this important

function with the other sustainment areas. The J1-Personnel in the JSG HQ will be focussed on personnel management within the JSG.³⁹ No plans have been identified for a theatre level personnel organization that can focus on issues such as personnel regeneration and have the required resources to ensure a high level of personnel support. It is assumed that responsibility for coordinating operational level personnel matters will be assigned to the Joint HQ's J-1 Personnel. The J-1 Personnel's task has become more complex as the individual will need to now deal with both the traditional J-3, J-4, and J-5 Joint HQ staff as well as JSG HQ staff and JSG line units.

It is unclear from the available research material whether command and control of air transport assets has been resolved. While the JSG will establish an in-theatre Movement Control Centre, no mention has been made on how scarce strategic level assets will be assigned when performing operational level tasks. The difficulties encountered during Op FRICTION were still present during Exercise MARCOT 98, a multinational joint exercise that involved over 15,000 personnel. While a MJLC was formed to co-ordinate all sustainment issues, including a large-scale road, sea, and air deployment, Air Command refused to allow the MJLC to task the assigned CC-130s that were conducting in-theatre movement between the Advanced Logistics Support Site and a series of Forward Logistics Sites. This was despite the MJLC having a robust air operations cell that tasked assigned Sea King Helicopters moving personnel and material between the Forward Logistics Sites and deployed forces.⁴⁰ When airlift tasking conflicts arose that impacted on operations, the MJLC Commander could not be held accountable for these shortfalls as he had not been delegated the necessary authority. Without operational

control over in-theatre air transportation assets, the JSG will encounter difficulties meeting its sustainment responsibilities.

Another key area of operational sustainment command and control that is not considered in JSG documentation is an integrated information management system. With separate Canadian Forces personnel, supply, transportation, finance, pay, and maintenance information systems, a method must be found to integrate data contained in these independent databases into meaningful information. Regardless of who is ultimately assigned responsibility for advising the Joint Force Commander on sustainment issues, they must have as complete a picture as possible on the status of each unit within the Joint Force. This is especially important during both the planning and deployment phases of an operation. If Iraq had decided to invade Saudi Arabia instead of stopping at the border, General Schwarzkopf would have needed a system capable of predicting when units would be ready to fight after completing their deployment into theatre. This type of system did not exist during Desert Shield and has yet to be developed in the United States or Canada.⁴¹

The above analysis has shown that, while there improvements have been proposed over the current notional NMSC, the proposed JSG will not provide the necessary focus for resolving the issues identified in Canada's operational sustainment. If the JSG does not address Canada's sustainment co-ordination shortfalls, does an alternative model exist that Canada could adopt? We will now look at three alternate models as possible solutions.

ALTERNATIVE MODELS

The first alternative military sustainment model to be considered is that of the United States, a nation that has developed extensive joint doctrine in the areas of personnel and logistics support. Joint Pub 5-00.2: Joint Task Force Planning Guidance and Procedures, issued in 1999, is the governing document for a Joint Task Force. This document calls for joint units such as the Logistics Readiness Center or Joint Patient Movement Requirements Center to report directly to the applicable Joint Task Force Staff, rather than to a separate line support commander.⁴² This eliminates the potential duplication of effort between the Task Force HQ staff and support units. The J-1 Personnel has a more robust organization at the operational level than indicated in current Canadian doctrine. The Personnel Division includes a Joint Personnel Reception Center, designed to facilitate the integration of personnel replacements into the Joint Task Force. The J-1 is also responsible for a wide range of personnel management functions and personnel services.⁴³ The J-1, however, is not involved in health services. This responsibility is shared between the Task Force Surgeon, who reports directly to the Task Force Commander⁴⁴, and the J-4 Logistics. The major drawback with using the United States as a model is that the individual services are responsible for sustaining their own forces. The Joint Task Force Commander only has authority over those sustainment functions that a component commander specifically delegates to the Joint Task Force Commander.⁴⁵ Such a model might be suitable in a country such as the United States, where each of the four services is relatively self-sufficient. In Canada, with over 30 years of unification and resource reductions, none of the force generators has sufficient

capability to sustain its deployed forces without assistance from another force generator. Accordingly, while the American model does offer some advantages over the JSG, the doctrine would require adjustments for use in Canada.

A second alternative model is the NATO Combined Joint Task Force and the associated MJLC. Within the Joint Task Force HQ is a J-4 that develops logistics policy and plans. Responsibility for the delivery of logistics support rests with the MJLC, not unlike the relationship that is proposed between Canada's Joint Operations Group HQ and the JSG. In addition, each Component Commander has either a Multi-National Logistics Centre (Land and Air) or a Multi-National Logistics Command (Maritime) that co-ordinates operational level support for the Component Commander. These units are under the command of the Component Commander, with a co-ordinating link to the MJLC.⁴⁶ This split relationship, when activated for Exercise Strong Resolve 98, did not function well.⁴⁷ The other major disadvantage of the NATO model is that the MJLC and the MNLCs are activated only when required and thus do not bring the benefits that accrue from a trained pre-existing unit. This lack of a formed core sustainment element was highlighted when NATO began planning the potential extraction of 50,000 United Nations troops from the former Yugoslavia in 1995.⁴⁸ A plan was eventually developed after a team of functional experts was assembled from various NATO member countries and given time to build working relationships. This delay would have been unacceptable in the face of shorter response times. The NATO model is, therefore, rejected as an alternative based on the complex sustainment command and control relationships and the lack of formed units.

The third alternative model examined was that in use in the United Kingdom. This model provides for a Joint Force Logistic Component Commander that is responsible for all third line support to the three operational Component Commanders.⁴⁹ In addition to the traditional logistics functions, the Joint Force Logistic Component Commander has specifically been assigned responsibility for regeneration, reconstitution, and rehabilitation at the operational level.⁵⁰ This doctrine provides a single point of focus for delivering operational level sustainment and was one of the lessons the British learned from their experiences during the Gulf War.⁵¹ The one drawback with the United Kingdom model is that it also contains the duplication of responsibilities between the Joint Force Logistic Component Commander and the Joint Force Headquarters Staff. For example, the J-4 Logistics is required to "... co-ordinate the overall logistics effort and movements within theatre."⁵² This assigned task is difficult when the resources necessary to carryout this responsibility reside with the Joint Force Logistic Component Commander. Although modifications would be required to resolve the disconnect between assigned responsibility and authority to implement, the United Kingdom model offers advantages over the proposed JSG, particularly with respect to consolidation of control over sustainment issues.

CONCLUSION

The proposed Canadian Forces Joint Support Group will provide a formed unit that has specific assigned responsibilities for operational sustainment. This initiative will help to focus the NDHQ "J" staff on their strategic level responsibilities and improve the

activation of new missions. The JSG will also represent a significant improvement over the notional National Level Units that exist under current doctrine.

However, the JSG does not provide the Joint Force Commander with a single point of contact for sustainment issues. Duplications in responsibility will exist between the JSG and the Joint Force Commander's HQ staff. The JSG has also not been assigned responsibility for personnel management, leaving the potential for many of the sustainment problems identified by the Board of Inquiry Croatia to reoccur.

While an alternative model does not currently exist that can be adopted without modification, the United Kingdom model does offer a potential improvement. The JSG doctrine should include specific responsibility for personnel regeneration, reconstitution, and rehabilitation. This addition, combined with an integrated sustainment command and control system, would go a long way to providing Canada with a world class sustainment capability.

NOTES

¹ Henry E. Eccles, Logistics in the National Defense (Harrisburg: The Telegraph Press, 1959) 42.

² Canada, Dept. of National Defence, Final Report: Board of Inquiry Croatia (Ottawa: Department of National Defence, 2000) 32.

³ Major Jean Morin and Lieutenant Commander Richard H. Gimblett, Operation Friction 1990-1991: The Canadian Forces in the Persian Gulf (Toronto: Dundurn, 1997) 36-37.

⁴ Morin, “Friction” 47.

⁵ Jean Morin, “The Command and Control of the Air Transport Group during the Gulf War,” Proceedings 3rd Annual Air Force Historical Conference (Winnipeg: Department of National Defence, 1998) 117.

⁶ Morin, “Transport” 118-120.

⁷ Morin, “Transport” 120.

⁸ Morin, “Transport” 120-121.

⁹ Morin, “Friction” 73.

¹⁰ Morin, “Friction” 108.

¹¹ Morin, “Friction” 122.

¹² Morin, “Friction” 125.

¹³ Morin, “Friction” 157.

¹⁴ Morin, “Friction” 262.

- ¹⁵ Canada, Dept. of National Defence, Canadian Forces Operations: B-GG-005-004/AF-000, (Ottawa: Department of National Defence, 2000) 7-1.
- ¹⁶ Canada, “Operations” 7-5.
- ¹⁷ Canada, Dept. of National Defence, Stating the Case for a CF National Military Support Capability (NMSC), (Ottawa: Department of National Defence, 2000) 2.
- ¹⁸ Canada, “Operations” 18-2 - 18-3.
- ¹⁹ Dr. Ken Reynolds, “Canadian Forces Operations in the Balkans, 1991-1995,” Reports and Studies: Board of Inquiry Croatia, (Ottawa: Department of National Defence, 2000) 3.
- ²⁰ Reynolds 10.
- ²¹ Reynolds 10.
- ²² Reynolds 11.
- ²³ Canada, “NMSC” 2.
- ²⁴ Dr. Franklin C. Pinch, Lessons from Canadian Peacekeeping Experience: A Human Resource Perspective, (Gloucester, FCP Human Resource Consulting, 1994) 15.
- ²⁵ Pinch ix-x.
- ²⁶ Pinch xii-xiii.
- ²⁷ Canada, “Final Report” 3.
- ²⁸ Canada, “Final Report” 32-43.
- ²⁹ Canada, “Final Report” 44.
- ³⁰ Canada, “Final Report” 48.
- ³¹ Canada, “Final Report” 49.
- ³² Canada, “NMSC” 2.

³³ Canada, Dept. of National Defence, Canadian Forces Joint Support Group Command and Control Concept, (Ottawa: Department of National Defence, 2000) 2.

³⁴ Canada, "Joint Support Group" 2-3.

³⁵ Canada, "Joint Support Group" 3-4.

³⁶ Canada, "Joint Support Group" 5-6.

³⁷ Canada "Joint Support Group" 10-11.

³⁸ Canada, "Joint Support Group" 8.

³⁹ Canada, "Joint Support Group" 9.

⁴⁰ The author of this essay was the MJLC Commander for Exercise MARCOT 98; conducted from Halifax, June 1998.

⁴¹ D.A. Schradly, Combatant Logistics Command and Control for the Joint Forces Commander, (Monterey: Naval Postgraduate School, 1998) 18-19.

⁴² United States, Dept. of Defense, JP 5-00.2: Joint Task Force Planning Guidance and Procedures, (Washington: Department of Defense, 1999) xi.

⁴³ United States V-2.

⁴⁴ United States xi.

⁴⁵ United States VIII-2.

⁴⁶ NATO, Combined Joint Task Force Headquarters Doctrine, (Brussels: NATO, 1997) 9-6.

⁴⁷ The author of this essay was the MNLC Director of Operations for NATO Exercise Strong Resolve 98; conducted from Aarhus, Denmark, March 1998.

⁴⁸ William N. Farnen, "Wanted: A NATO Logistics Headquarters," Joint Force Quarterly Spring 1998: 63-64.

⁴⁹ United Kingdom, Ministry of Defence, JWP 0-10: United Kingdom Doctrine for Joint Operations - 3rd Study Draft, (London: Department of Defence, 1998) 8-5.

⁵⁰ United Kingdom 8-13.

⁵¹ Major General M.S. White, Gulf Logistics: Blackadder's War, (London, Brassey's, 1995) 245.

⁵² United Kingdom 5-8.

BIBLIOGRAPHY

- Canada. Department of National Defence. Canadian Forces Joint Support Group Command and Control Concept. Ottawa: National Defence, 2000.
- Canada. Department of National Defence. Canadian Forces Operations: B-GG-005-004/AF-000. Ottawa: National Defence, 2000.
- Canada. Department of National Defence. DCDS Direction to Commanders of Operational Deployments. Ottawa: National Defence, 1998.
- Canada. Department of National Defence. Final Report: Board of Inquiry - Croatia. Ottawa: National Defence, 2000. Hwww.dnd.ca/boi/engraph/home_e.aspH
- Canada. Department of National Defence. Logistic Support to Canadian Forces Operations: B-GG-005-004/AF-013. Ottawa: National Defence, 1998.
- Canada. Department of National Defence. Stating the Case for a CF National Military Support Capability (NMSC). Ottawa: National Defence, 2000.
- Eccles, Henry E. Logistics in the National Defense. Harrisburg: The Telegraph Press, 1959.

Farmen, William N. "Wanted: A NATO Logistics Headquarters." Joint Force Quarterly
Spring 1998: 62-66. "www.dtic.mil/doctrine/jel/jfq_pubs/spring98.htm"

Morin, Jean. "The Command and Control of the Air Transport Group during the Gulf War." Proceedings: 3rd Annual Air Force Historical Conference. Winnipeg: National Defence, 1998. 117-124.

Morin, Jean, and Richard H. Gimblett. Operation Friction 1990 - 1991: The Canadian Forces in the Persian Gulf. Toronto: Dundurn Press, 1997.

NATO. Combined Joint Task Force Headquarters Doctrine. Brussels: NATO, 1997.
"bbs.cfc.dnd.ca/Admin/jointdocs/natopubs/cjtf_hq_doctrine/cjftoc.html"

Pinch, Franklin C. Dr. Lessons from Canadian Peacekeeping Experience: A Human Resource Perspective. Gloucester: FCP Human Resources Consulting, 1994.

Reynolds, Ken Dr. "Canadian Forces Operations in the Balkans, 1991-1995." Reports and Studies: Board of Inquiry - Croatia. Ottawa: National Defence, 2000. 1-12.
[Hwww.dnd.ca/boi/engraph/home_e.asp](http://www.dnd.ca/boi/engraph/home_e.asp)

Schrady, D.A. Combatant Logistics Command and Control for the Joint Forces Commander. Monterey, Naval Postgraduate School, 1998.

United Kingdom. Ministry of Defence. JWP 0-10: United Kingdom Doctrine for Joint Operations - 3rd Study Draft. London: Department of Defence, 1998.

“bbs.cfc.dnd.ca/Admin/jointdocs/britpubs/uk_joint_ops_doctrine/ukjopstoc.html”

United States. Department of Defense. JP 1: Joint Warfare of the Armed Forces of the United States. Washington, DC: Department of Defense, 1995.

“www.dtic.mil/doctrine/jel/capstone.htm”

United States. Department of Defense. JP 1-0: Doctrine for Personnel Support to Joint Operations. Washington, DC: Department of Defense, 1998.

Hwww.dtic.mil/doctrine/jel/personnel.htmH

United States. Department of Defense. JP 4-0: Doctrine for Logistics Support to Joint Operations. Washington, DC: Department of Defense, 2000.

Hwww.dtic.mil/doctrine/jel/logistics.htmH

United States. Department of Defense. JP 5-00.2: Joint Task Force Planning Guidance and Procedures. Washington, DC: Department of Defense, 1999.

Hwww.dtic.mil/doctrine/jel/planning.htmH

White, M.S., Major General. Gulf Logistics: Blackadder's War. London, Brassey's, 1995.