

## 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 [Communications Policy of the Government of Canada](#), you can request alternate formats on the "[Contact Us](#)" 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 [Politique de communication du gouvernement du Canada](#), vous pouvez demander de recevoir cette information dans tout autre format de rechange à la page « [Contactez-nous](#) ».

EXERCISE/EXERCICE NEW HORIZONS

**Logistics Force Protection Capability Assessment**

By /par Maj T.D. Marcella

*This paper was written by a student attending the Canadian Forces College in fulfilment 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**

This paper provides an assessment of the Canadian Forces (CF) Logistics Force Protection Capability to operate within a high-threat asymmetric environment. The assessment demonstrates that there are significant shortfalls throughout this capability. Current doctrine remains focused on Cold War linear battlefield concepts that are obsolete and CSS personnel must be given the training and equipment to enable them to fight and win against an asymmetric enemy. CSS units require the same situational awareness as the warfighter and the information infrastructure must adapt to this need. More alarming, the current logistics tri-service manning policy results in a potentially catastrophic shortfall within the personnel component of the logistics force protection capability. The Logistics Branch must undertake a significant transformation if it hopes to operate successfully on the modern battlespace. Until that time, the CF is incapable of conducting effective logistics operations in a high-threat asymmetric environment due to the lack of force protection capability.

*“This is another type of war, new in its intensity, ancient in its origins — war by guerrillas, subversives, insurgents, assassins; war by ambush instead of by combat; by infiltration, instead of aggression, seeking victory by eroding and exhausting the enemy instead of engaging him . . . It requires in those situations where we must counter it . . . a whole new kind of strategy, a wholly different kind of force, and therefore a new and wholly different kind of military training.”*

John F.  
Kennedy

## **INTRODUCTION**

The asymmetric threat is not a new phenomenon of warfare although in recent years its impact on the battlefield has increased dramatically. Recent coalition operations have clearly demonstrated the vulnerability of logistics units and lines of communications (LOCs) to asymmetric attack and disruption. To add to this dilemma, the continually increasing support demands of maneuver warfare and the non-linear battlefield have also contributed significantly to the strain on logistics resources. As a result of this dual pressure, current trends in logistics related to personnel manning, doctrine, training and equipment must adapt to address these changing battlefield realities. The Canadian Forces (CF) recognizes this need and clearly articulates its vision in the Chief of Defence Staff document *Shaping the Future of Canadian Defence: A Strategy for 2020 (Strategy 2020)*. This strategic vision document states, “the Canadian Forces is charged to develop new task tailored capabilities to deal with asymmetrical threats and WMD.”<sup>1</sup> While the CF vision and direction with regards to the asymmetric threat are clear, the establishment and maintenance of the required capabilities to do so remains a challenge. This paper will provide an assessment of the current CF logistics force protection capabilities to operate

---

<sup>1</sup> Department of National Defence, *Shaping the Future of Canadian Defence: A Strategy for 2020* (Ottawa: DND, 1999) Part II-8.

effectively in the emerging asymmetric threat environment and provide key recommendations to address any apparent shortfalls.

This paper will first define the asymmetric environment in order to set the background for this assessment. This will include an identification of the major changes to the asymmetric threat on the modern battlespace. This in turn, will lead to an examination of the specific logistics capability requirements in this environment. Next, the specific logistics force protection capability model will then be explained. This model provides the necessary concepts, mechanisms and lexicon to conduct an assessment of logistics force protection capabilities that will be relevant to the current force development structure in the CF. This will then be followed by a detailed assessment of CF logistics force protection capabilities in an asymmetric environment. Finally, key recommendations will be provided to address critical shortfalls to logistic capabilities identified during the assessment.

## **THE ASYMMETRIC ENVIRONMENT**

The term asymmetric warfare is unquestionably the current term *du jour* for military theorists and planners and as such there exists a wide range of opinion as to what exactly it entails. Ironically it is a concept as old as warfare itself. Throughout history weaker opponents have sought to neutralize their adversary's technical or numerical superiority by using tactics on the battlefield that nullify the enemy's advantages.<sup>2</sup> There are however, several definitions of asymmetric warfare that are particularly relevant in an assessment of CF logistic capabilities. P.F. Herman, author of *Asymmetric Warfare: Sizing the Threat, Low Intensity Conflict & Law Enforcement*, defines asymmetric warfare as "a set of operational practices, aimed at negating advantages and exploiting

---

<sup>2</sup> Vincent Goulding, "Back to the Future with Asymmetric Warfare," *Parameters* (Winter 2000-2001): 21.

vulnerabilities rather than engaging in traditional force-on-force engagements.”<sup>3</sup> This is similar to the CF perspective that defines asymmetric warfare as “attempts to circumvent or undermine an opponent’s strengths while exploiting his weaknesses, using methods that differ significantly from the opponents usual mode of operations.”<sup>4</sup>

Despite its long and bloody history, asymmetric warfare has changed in significant ways in recent decades. The first important factor is the significant likelihood that the frequency of asymmetric conflicts will increase in the future. In the past the asymmetric threat was normally just a component of the larger conventional conflict. Today however, there is only one superpower in the world and this ‘asymmetric’ gap between the U.S. military forces and those of her adversaries continues to grow. As a result, the only method of attack against this superpower and western coalitions will be through asymmetric means. Indeed, German political scientist Herfried Münkler argues that developments since the Second World War indicate that wars in the classical sense might disappear or at the most will play only a minor role. He states that “classical wars” between states seem to be a “discontinued line of warfare” and that future armed conflicts will mostly be asymmetric conflicts.<sup>5</sup>

The second important factor of change in the asymmetric threat has been in the tactics and objectives of its practitioners. In the past, the targets of asymmetric attack have been, for the most part, military targets with military objectives as a goal. The modern asymmetric threat includes terrorism as a primary tactic instead of as the

---

<sup>3</sup> P.F. Herman, “Asymmetric Warfare: Sizing the Threat,” *Low Intensity Conflict & Law Enforcement* (Spring 1997): 176.

<sup>4</sup> Definition adopted by the AFC, 18 Apr 2000.

<sup>5</sup> Herfried Münkler, *Symmetrische und Asymmetrische Kriege* (Merker, August 2004): 1, quoted in G.M. Pazderski, “Unconventional Thoughts Towards a Future Policy to Counter Asymmetric Threats” (Toronto: Canadian Forces College Advanced Military Studies Course Paper, 2004), 12.

exception. Krystian Piatkowski, an analyst for the Poland in Europe Foundation, identified this reality when he stated “this war pattern neither corresponds to the perceptions of a Carl von Clausewitz nor the conditions of The Hague and Geneva Convention.”<sup>6</sup> This changing asymmetric environment presents specific challenges for logistics force protection.

## **LOGISTICS CAPABILITIES IN THE ASYMMETRIC ENVIRONMENT**

*Traditionally, asymmetric warfare is best used against targets that have little or no protection. Logistics units and resources are high payoff targets in sustained operations, but they normally possess minimal self-defence capability. It is this vulnerability that makes them especially attractive targets to nations and organizations that cannot effectively wage conventional warfare against their enemies. Ground based units will encounter increased ambushes making logistics movement high risk; more sabotage of logistics assets by hostile populations; and more electronic warfare directed at logistics command, control, and communication assets. Furthermore, the asymmetric threat does not decrease significantly during operations other than war (OOTW). In fact, the opposite is likely true as the absence of heavy combat units could suggest weakness that may embolden adversaries eager to use asymmetric attacks.<sup>7</sup> The reality is the asymmetric threat to logistics units and facilities has increased significantly in the modern battlespace and they present more likely targets than well armed combat units.*

On the conventional battlefield of past conflicts, CSS units certainly faced combat situations. The linear nature of the battlefield, however, enabled commanders to mitigate

---

<sup>6</sup> Krystian Piatkowski, “A New Type of Warfare,” *The Polska w Europie Foundation: Studies and Analyses Vol. I, no. 3 (2002): 31.*

<sup>7</sup> Michael Kolodzie, “The Asymmetric Threat,” *Army Logistician* Vol. 33 Issue 4 (July/August 2001): 16.

risk and exposure of CSS assets to attack. In the past, CSS personnel were exposed to indirect fire and aerial attack, however, in the modern asymmetric environment they now face the asymmetric tactics of hostile paramilitary forces and terrorists in civilian clothing. Recent conflicts such as Operation Iraqi Freedom (OIF) have revealed an unprecedented speed of maneuver forces. U.S. combat elements often bypassed Iraqi pockets of resistance in order to sustain the momentum of the attack. Maintaining this tempo required logistics units to provide support on unsecured LOCs and through fluid areas of operations. The fate of the 507<sup>th</sup> Maintenance Company convoy during OIF is one of many examples that vividly demonstrates this new reality. Unable to locate the fast moving elements of U.S forces, this convoy became lost and was ambushed by Iraqi armour and crew-served weapons resulting in the death of nine soldiers and the capture of five others.<sup>8</sup> In the modern asymmetric battlespace, CSS units must be capable of operating over extended LOCs through unsecured and hostile terrain. The key capability required by CSS units to operate in this high threat environment is that of force protection.

CSS units must have the resources to fight and survive while they execute their sustainment mission. This includes support to rapid and fluid combat operations as well as hostile post-combat environments.<sup>9</sup> Past doctrinal concepts that hold that combat units will be assigned to provide rear area security when necessary are unrealistic and potentially catastrophic.<sup>10</sup> Past experience has demonstrated that combat units will frequently be forced to leave their LOCs unsecured as combat arms and support arms

---

<sup>8</sup> David Scott Mann, "Every Soldier a Rifleman," *Army Logistician* Vol. 36, Issue 1 (January-February 2004): 46-48.

<sup>9</sup> Shawn P Walsh, "More Tooth for Tail: the right stuff for CSS Operations," *Army Logistician* Vol. 36, Issue 1 (January-February 2004): 10.

<sup>10</sup> Kolodzie, "The Asymmetric Threat" . . . . ., 3.



units will always be tasked with other priorities. CSS units must be capable of conducting convoy operations and base defense against the asymmetric threat without external assistance. While force development continues to strive to reduce the Army's logistics footprint, leaders must also ensure that all CSS units become more lethal and survivable in the asymmetric battlespace.<sup>11</sup> To achieve the necessary level of force protection the three main pillars of personnel, doctrine and training, equipment and information infrastructure must be maintained.

To guard effectively against asymmetric threats, logistics security must be included in both doctrine and training. If security for logistics assets is not included in doctrine, this key area lacks the visibility and focus that is necessary for successful operations in an asymmetric environment. Security should not be an implied task for logistics commanders. Current and future Army doctrine cannot assume that logistics units will maintain their security, augmented by combat units that are rarely available. area security. Assuming that any sort of inherent unit self-defence capability will achieve the necessary level of rear area security in an environment with a high probability of asymmetric attack is extremely dangerous.<sup>12</sup> The enemy will not distinguish between combat arms and CSS soldiers. In fact, the enemy may be more likely to target CSS soldiers. To be able to provide logistics support, CSS soldiers also must be trained for close combat.<sup>13</sup> To be properly prepared for the future, all leaders and soldiers, regardless of service, must be trained to deal effectively with both asymmetric and conventional threats. In the asymmetric battlespace, CSS soldiers now have to deal with many of the same challenges that combat arms soldiers face and this includes overcoming

---

<sup>11</sup> Walsh, "More Tooth for Tail"....., 10.

<sup>12</sup> Kolodzie, "The Asymmetric Threat"....., 3.

<sup>13</sup> Mann, "Every Soldier a Rifleman"....., 46.

the psychological hardships of killing in combat.<sup>14</sup> They must be trained to fight and win in an asymmetric environment.

Given the need to provide a considerably higher level of force protection in the modern asymmetric threat environment, it is not surprising that a radical change in equipment requirements for CSS units is also required. In addition to improved individual protection, there is a need for improved collective firepower and protection. The first requirement is for hardened vehicles that provide increased blast and ballistic protection than is currently available from the normal 'administrative' vehicles. The normal compliment of ring mounts for automatic and crew served weapons must be increased. Convoy personnel, who find themselves in an ambush are firing from moving and restricting vehicle spaces at an enemy who has chosen the battleground, are at a significant disadvantage from the outset. As such, flexible and overwhelming firepower is required to win the firefight quickly and to allow the convoy to rapidly escape the ambush site. This high level of armament will also contribute significantly to deterring attacks.<sup>15</sup> From a static defence perspective, improved intrusion alarm systems and other sensors will greatly improve force protection capabilities and deter enemy attacks.<sup>16</sup> In order to maximize the capabilities of this equipment, it is necessary to have their employment tied into an effective information system.

A greatly improved information infrastructure is essential for CSS unit operations in the modern asymmetric environment. The current information gap that exists between combat and support units must be closed. During OIF, the Chief of Staff, G-4, Lieutenant

---

<sup>14</sup> Mann, "Every Soldier a Rifleman"....., 47.

<sup>15</sup> Walsh, "More Tooth for Tail"....., 13.

<sup>16</sup> Patrick Henrichon, "Protecting the Canadian Forces Against Asymmetric Threats," *Canadian Military Journal* Vol 3, No 4 (Winter 2002-2003): 12.

General C.V. Christianson, pointed out that logisticians in Iraq could not see the requirements of combat units on the move and this resulted in a lack of continuous, "24/7" connectivity to the operational requirements of maneuver forces.<sup>17</sup> This lack of connectivity can result in a serious failure in force protection as was demonstrated by the ambush of the 507<sup>th</sup> Maintenance Company convoy as previously discussed. Had a movement tracking system been in place they could have been quickly advised that they were moving in the wrong direction thus avoiding their lethal encounter with the Iraqis.<sup>18</sup> It is clear that CSS units need the same informational and communications capability as the warfighter in the modern asymmetric environment. Having defined the asymmetric environment and the specific logistics force protection requirements, it is now necessary to provide a mechanism for assessing this capability.

#### **LOGISTICS FORCE PROTECTION ASSESSMENT MODEL**

This logistic force protection capability assessment will be conducted in a manner similar to those assessments conducted within the Capability-Based Planning (CBP) process currently used by the CF. The focus of this assessment will be on the Force Protection capability area at the tactical level and the elements of the Canadian Joint Task List (CJTL) which enable that capability. The capability goal for this assessment will be the ability for CF logistics elements to operate in a high-threat asymmetric environment as experienced by Coalition Forces in Iraq during OIF. In the context of logistics force protection capability, this assessment will focus on the functional components of Personnel, Doctrine and Training, Information Infrastructure and Equipment. With regard

---

to the rating of capabilities, a simple traffic light system will be used to assessment tool. An assessment of RED indicates a failure to meet force protection requirement to a degree that may result in excessive casualties and failure of logistics capability on operations. An assessment of YELLOW indicates that force protection requirements are met in the majority of areas but some short falls exist which could result in high casualties and seriously denigrated logistics capability on operations. An assessment of GREEN indicates that force protection requirements are met to a degree that allows for the required logistic capability. The assessment will be focused on the Force Protection Capability tactical level CJTLs that specifically address logistics activities that are outlined in Table 1.1.

Serial	Task	Description
T 5.1.3	Defend Line(s) of Communication (LOC) and Logistics Bases	Defend LOCs, Air and Sea Points of embarkation/Disembarkation (APOE and APOD) and their associated command arrangements
T 5.2	Conduct Force Security	Conduct Measures to protect a military unit, area, an activity or an installation against attacks designed to impair its effectiveness and retain the unit's capability to perform its missions and tasks <sup>19</sup>

Table 1.1: Key Force Protection Canadian Joint Tasks.

Finally the CBP process itself will be assessed with regards to its suitability to provide the necessary mechanisms to ensure the logistics force protection capability is established and maintained. Having described the model, it is now possible to conduct an assessment of the logistics force protection capability.

---

<sup>19</sup> Director General Strategic Planning, "Canadian Joint Task List 1.4," [http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/dda/cjtl/intro\\_e.asp](http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/dda/cjtl/intro_e.asp); Internet; accessed 14 March 2004.

## **LOGISTICS FORCE PROTECTION CAPABILITY ASSESSMENT**

The first assessment area of the logistics force protection capability will be the functional component of personnel. Unlike the vast majority of Military Occupations (MOCs), the Logistics Branch is a joint branch with its members, in theory, employable within the three environments. In particular, the Non-Commissioned Members (NCMs) are frequently posted out of their normal land, sea or air environment. While this policy provides excellent technical flexibility and depth, it also results in a significant vulnerability in an asymmetric environment. While the asymmetric threat can exist on land, sea and in the air, it is in the ground environment that logisticians are most vulnerable and where historically the vast majority of attacks occur. In 2004, the Chief of Land Staff (CLS) manning of logistics positions within CLS units by non-army personnel equaled 33% or one third of total strength. In terms of leadership, the situation was even worse. The manning at the rank of Master-Corporal (MCpl) through to Chief Warrant Officer (CWO) was 43% non-army personnel.<sup>20</sup> Just under half of the NCM logistics leadership in Army units was comprised of individuals who do not have the level of training and experience necessary for force protection in a ground environment. Considering the significant casualties suffered by U.S. fully army-manned logistics ground units during OIF, these figures indicate a critical personnel capability shortfall. As a result of the major force protection vulnerability that results from the current logistics tri-service NCM manning policy, the functional component of personnel in this assessment is deemed to be RED.

---

<sup>20</sup> Statistics derived from CWO K.E. Carleton, *Logistics Branch Strategic Seminar Cornwall Ontario 26-28 October 2004 - Discussion Paper Annex B* (22 January 2004).

The next assessment area examined will be the functional component of doctrine. CF doctrine still contains the outdated concept that combat arms units will provide the necessary protection for LOCs and logistics units in an asymmetric environment. For example, B-GL-312-001/FP-001 *Combat Service Support*, which was last updated in 1987, states "...major rear area security tasks must be handled by combat forces."<sup>21</sup> This concept has become obsolete for a number of reasons. Firstly and most importantly, this doctrinal principle was designed for operations in a Cold War linear battlefield with a relatively secure rear area. It is not suitable for the modern non-linear asymmetric battlespace as experienced in Iraq. During OIF the most powerful military force in the world was unable to provide combat units to adequately protect its LOCs and logistics units in an asymmetric environment. The reality of the situation in Iraq was that convoys were responsible for their own force protection.<sup>22</sup> Secondly, the Army does not seem to have made the paradigm shift in thinking that calls for a fundamental change in how CSS units defend themselves. This requirement for robust integral force protection for logistics units and activities requires not only the mounting weapons on logistics vehicles but actually providing CSS units with platforms dedicated solely to force protection tasks on a permanent basis. This need not entail assigning combat arms vehicles and personnel to CSS units. For example, the 'Gun Truck' concept entails mounting considerable firepower in up-armoured logistics vehicles that are solely dedicated to force protection. This highly effective concept was initially seen in Vietnam and was re-discovered during

---

<sup>21</sup> Department of National Defence, B-GL-312-001/FP-001 *Combat Service Support Volume 1 – the Brigade Group Service Battalion in Battle* (Ottawa: DND Canada, 1989): Chap 11 para 49 e.

<sup>22</sup> Mann, "Every Soldier a Rifleman." . . . ., 48.

OIF.<sup>23</sup> Given the continued rise in the frequency of asymmetric warfare to the point where it could become the most common type of conflict, CF doctrine should be moving in these directions. Due to the lag that seems to exist within logistics force protection doctrine the functional component of doctrine in this assessment is deemed to be YELLOW.

In terms of the functional component of training, there also exist some shortfalls within the logistics force protection capability. As a whole the technical expertise of logisticians is not in question. What is in doubt however, is their ability to protect themselves in a high-risk asymmetric environment. The current training system does not provide adequate war fighting skills and leadership training to all logistics personnel who are deployed on operations in high threat areas. The crux of this problem is the fact that with regards to force protection, logisticians are trained by environment and then employed, most frequently, in a ground based threat environment. In terms of frequency and quantity, this is particularly true for air force personnel. This disparity in training results in non-Army logisticians being posted to the Land environment where they are expected to lead and supervise troops without the requisite basic knowledge, let alone advance skills.<sup>24</sup> The flaws in this system were made abundantly clear during Op APOLLO in 2003 when the National Support Unit (NSU) was deemed to be incapable of providing for its own force protection in what was only a Low-Medium asymmetric threat environment. As a result of this situation, an Army Defence and Security Platoon had to deploy into theatre to provide force protection. This failure to meet the required logistics force protection capability was due in part to a failure to provide adequate

---

<sup>23</sup> Paul Gardiner, "Gun Trucks: Genuine Examples of American Ingenuity," *Army Logistician* Vol. 35, Issue 4 (July/August 2003): 34.

<sup>24</sup> Carleton, *Logistics Branch Strategic Seminar*....., 1.

training during pre-deployment training.<sup>25</sup> This was only part of the problem however, as it is impossible to train an inexperienced non-Army NCM leader to the necessary force protection skill level in three months of pre-deployment. The training and experience essential for this skill set is acquired throughout the career progression of the logisticians involved and the current tri-service logistics training system cannot meet this demand.

There have been a number of recent initiatives that have attempted to address this training deficiency with regards to logistics force protection capability. A Logistics Branch Strategic Seminar was conducted in October 2004 to address these training and personnel issues however the subsequent recommendations are still being considered. The Deputy Chief of Defence Staff (DCDS) also conducted a review of the NCM General Specifications (NCMGS) from January



very positive initiatives and developments however, the current training process does not provide an adequate logistics force protection capability for an asymmetric environment. As such, the functional component of training in this assessment is deemed to be YELLOW.

In terms of information technology infrastructure the situation in some areas meets the requirement, however, there are key short falls in other areas. The introduction of the Tactical Command and Control System into the Army's fleet of vehicles has provided a solid capability with regards to communications. It remains adequate for communications within an asymmetric environment. The Strategic Capability Investment Plan (SCIP) 2004 indicates that a Combat Identification System will also be established which will greatly reduce the risk of friendly fire and but will also allow convoy commanders to react quickly to new threats.<sup>27</sup> What is lacking within the information technology infrastructure at this time is a movement tracking system (MTS). This system would provide the ability to identify the positions of MTS-equipped tactical vehicles, track their progress and communicate with the drivers. This is an essential capability in an asymmetric environment particularly when maneuver warfare is being executed. It is interesting to note that the U.S. Army is already implementing this capability. As at June 2004 over 2000 logistics vehicles participating in OIF had been equipped with this type of system.<sup>28</sup> Given the strengths and weaknesses of the current information technology infrastructure, this aspect of the logistics force protection capability is assessed as YELLOW.

---

<sup>27</sup> Director General Strategic Planning, "Strategic Capability Investment Plan, Capital Equipment Annex, 2004," [http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ddm/scip/annex04-05/intro\\_e.asp](http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ddm/scip/annex04-05/intro_e.asp); Internet; accessed 14 March 2004.

<sup>28</sup> Tapp, "MTS is Revolutionizing Logistics"....., 15-16.

Any assessment of equipment capabilities in relation to logistics force protection should be broken down into the categories of personal and collective force protection. In the case of the former, the Army's Clothe the Soldier program has provided excellent personal equipment to enhance force protection capabilities. This includes body armour, Kevlar helmets and blankets, ballistic eye protection and load carrying vests. The C7 rifle upgrade, which included a telescopic sight, also greatly improved this weapon's performance. From a personal equipment perspective, logistics personnel are very well equipped for operations in an asymmetric environment. From a collective force perspective, there are several key projects listed on the SCIP that will enhance this capability.<sup>29</sup> These include improved Area Surveillance Radar as well as the Biological Warfare Threat Counter-Measure Project.<sup>30</sup> In terms of vehicles, the Army's fleet acquisition of the new Mercedes-Benz G Wagon, with its weapons ring mount, will allow improved convoy firepower. This capability augments the existing weapons ring mount capability of the Heavy Logistics Vehicle Wheeled (HLVW) that is the current workhorse of convoy operations. Both types of vehicles have an up-armour capability. While the CF still lacks any sort of 'Gun Truck' vehicle this weakness is the result of a doctrinal shortfall that has already been addressed and will not be considered in this portion of the assessment. From the equipment functional component perspective the current logistics force protection capability is assessed a high YELLOW.

The CBP planning is a sound concept that has already been adopted by both the U.S. and the U.K. Like any tool however, it is only effective when it is used properly. This is not quite the case within the CF. The existing Defence Management System

---

<sup>29</sup> Director General Strategic Planning, "Strategic Capability Investment Plan Capital Equipment Annex, 2004"....

<sup>30</sup> Ibid.

(DMS) and CBP process have not yet been fully integrated and synchronized. This has resulted in some reluctance by some staff within NDHQ to fully ‘buy in’ to this process. A large number of personnel associated with the CBP process are also double hatted with other duties that impact on their focus and productivity. Despite the fact CBP was implemented in 2000, to date only three of the eight capability areas are being addressed by the existing Joint Capability Assessment Teams (JCATs). There is no JCAT established to champion the force protection capability area. This lack of focus is perhaps evident in the 2004 SCIP that does not even list force protection as one of its ‘capability thrusts’. Force protection issues continue to be addressed by the environment and this situation does not serve the logistics capability, which is joint, particularly well. There is a danger of issues being overlooked due to the lack of central coordination and control. The CBP process has the potential to address the force protection needs of the logistics capability, however, in its current form of implementation it is not meeting the requirement and is assessed as YELLOW.

Having examined and assessed the logistics force protection capability in terms of the key functional components as well as in terms of the CBP process it is now possible to determine an overall assessment rating. The table at Table 1.2 provides a summary of the assessment area ratings for this study. Any assessment rating of RED carries significant weight due to the fact that this shortfall will lead to excessive casualties and logistics mission failure. As such, the overall logistics force protection capability is assessed as low YELLOW.

LOGISTICS FORCE PROTECTION CAPABILITY SUMMARY

Assessment Area	Detail	Personnel	Doctrine Training	Information Infrastructure	Equipment
-----------------	--------	-----------	-------------------	----------------------------	-----------

Force Protection Tactical CJTL	T 5.1.3 Defend LOCs And Logistics Bases	RED	YELLOW	YELLOW	YELLOW
	T 5.2 Conduct Force Security	RED	YELLOW	YELLOW	YELLOW
CBP Process	JCRB – JCAT	YELLOW			
Logistics Force Protection Capability	Overall Assessment	YELLOW			

Table 1.2: Logistics Force Protection Capability Summary

Legend

*This assessment of the current logistic capability will use the recent experience of OIF as an example of a high threat asymmetric environment. It is assumed that the CF would strive for a high level of force protection capability in this type of environment. Colour code indicates the following:*

- Red – fails to meet force protection requirement to a degree that may result in excessive casualties and failure of logistics capability on operations;
- Yellow – meets the force protection requirement in most areas but some short falls exist which could seriously denigrate logistics capability on operations; and
- Green – meets the force protection requirement and enables the required logistic capability on operations.

## RECOMMENDATIONS

Clearly, the establishment of a robust and effective logistics force protection capability is a complex and demanding problem and this paper will not attempt to provide solutions to all of the current challenges in this regard. There are however, several key recommendations that are fundamental for success. The issues of personnel and training are closely linked and the weaknesses in this area represent the most significant shortfall in the logistics force protection capability. Radical transformation and change will be required within the Logistic Branch to overcome this deficiency and allow for the necessary logistics force protection in an asymmetric environment. There are essentially two options. The first choice is to employ Logistics NCMs within their environments except for significant operation necessity. The second option is for the Branch to truly adopt the often quoted but much ignored metaphor that all logisticians are ‘soldiers first and tradesmen second.’ This will ensure all logisticians, regardless of environment, are

equipped with a soldier's minimum level of skills necessary for operations in a ground environment. CF doctrine must adapt to the reality that CSS units must be capable of providing for their own force protection in the modern asymmetric battlespace and units and personnel must receive the necessary equipment and training to do so. This should include vehicle platforms integral to the unit that are used exclusively to provide overwhelming firepower in a force protection role. Finally, the Army should acquire a movement tracking system similar to that which the U.S is currently implementing. This information infrastructure asset would greatly enhance the CF logistics force protection capability as well as provide a very important aspect of inter-operability with the world's only superpower.

## **CONCLUSION**

This paper examined the logistics force protection capability within a high threat asymmetric environment. In particular, the capability area of force protection and its key functional components were used as the assessment area framework. In terms of doctrine and training, there are some critical shortfalls in the capability and a critical shift in thinking is required to meet the changing reality of the high-threat asymmetric environment. U.S. forces in Iraq have already experienced these realities and the necessary changes are currently being implemented. The CF must adapt to the modern battlespace as well. It is clear that the current tri-service manning policy results in a potentially catastrophic shortfall within the personnel functional component of the logistics force protection capability. The Logistics Branch must undertake a significant transformation in terms of the personnel functional component if it hopes to meet the CF goal laid out in *Strategy 2020* to develop new task tailored capabilities to deal with

asymmetrical threats. As it currently exists and within a CBP context, the logistics force protection capability is assessed as low YELLOW. The CF is incapable, at this time, of conducting effective logistics operations in a high-threat asymmetric environment due to the lack of force protection capability.

## BIBLIOGRAPHY

### Books, Articles, and Journals

Gardiner, Paul S. "Gun Trucks: Genuine Examples of American Ingenuity." *Army Logistician* Vol. 35, Issue 4 (July/August 2003): 34-35.

Goulding, Vincent J. "Back to the Future with Asymmetric Warfare." *Parameters* (Winter 2000-2001): 21-30.

Henrichon, Patrick. "Protecting the Canadian Forces Against Asymmetric Threats." *Canadian Military Journal* Vol. 3 No 4 (Winter 2002-2003): 9-14.

Herman, P.F. "Asymmetric Warfare: Sizing the Threat." *Low Intensity Conflict and Law Enforcement* 6/1 (Spring 1997): 176.

Kolodzie, Michael. "The Asymmetric Threat." *Army Logistician* Vol. 33 Issue 4 (July/August 2001): 16-17.

Mann, David Scott. "Every Soldier a Rifleman." *Army Logistician* Vol. 36, Issue 1 (January/February 2004): 46-48.

Münkler, Herfried. *Symmetrische und Asymmetrische Kriege*. Merker, August 2004: 1. Quoted in G.M. Pazderski, "Unconventional Thoughts Towards a Future Policy to Counter Asymmetric Threats." Toronto: Canadian Forces College Advanced Military Studies Course Paper, 2004.

Paulus, Robert D. "Delivering Logistics Readiness to the Warfighter." *Army Logistician* Vol. 36, Issue 1 (January/February 2004): 3-6.

Piatkowski, Krystian. "A New Type of Warfare." *The Polska w Europie Foundation: Studies and Analyses* Vol. I, no. 3 (2002): 31.

Tapp, Kelly M. "MTS is Revolutionizing Logistics on the Move." *Army Logistician* Vol 36, Issue 3 (May-June 2004): 15-17.

Walsh, Shawn P. "More Tooth for Tail: the right stuff for CSS Operations." *Army Logistician* Vol. 36, Issue 1 (January/February 2004): 10-13.

## DND Documents

Boomer, Col F.M. *Training Op APOLLO NSU Rotations*. NDHQ File: 4500-0 (Former CO NSU), 31 March 2003.

Canada. Department of National Defence. *Shaping the Future of Canadian Defence: A Strategy for 2020*. Ottawa: DND, 1999.

Canada. Department of National Defence. B-GL-312-001/FP-001 *Combat Service Support Volume 1 – the Brigade Group Service Battalion in Battle*. Ottawa: DND Canada, 1989.

Carleton, CWO K.E. *Logistics Branch Strategic Seminar Cornwall Ontario 26-28 October - Discussion Paper Annex B*. 22 January 2004.

Ready, K.F. *Non-Commissioned Member General Specification (NCMGS) Review - ADM (Mat) Comments*. NDHQ File: 5000-1 (COS ADM (Mat)), 24 March 2004.

### **Internet**

Director General Strategic Planning. “Canadian Joint Task List 1.4.” [http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/dda/cjtl/intro\\_e.asp](http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/dda/cjtl/intro_e.asp); Internet; accessed 14 March 2004.

Director General Strategic Planning. “Strategic Capability Investment Plan, Capital Equipment Annex, 2004.” [http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ddm/scip/annex04-05/intro\\_e.asp](http://www.vcds.forces.gc.ca/dgsp/pubs/rep-pub/ddm/scip/annex04-05/intro_e.asp); Internet; accessed 14 March 2004.