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CANADIAN FORCES COLLEGE / COLLÈGE DES FORCES CANADIENNES

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EXERCISE / EXERCICE NEW HORIZON

**CANADIAN FORCES INTEROPERABILITY WITH  
THE UNITED STATES MILITARY: A MUST FOR CANADA**

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## ABSTRACT

Both Canada's National Security Policy, released in April 2004 and the International Policy Statement, released in April 2005 make it clear that the Canadian Forces will make a significant contribution to international peace and security, as well as be able to defend Canada from threats to her national security. At the same time, both documents recognized that Canada does not possess the resources or the capacity to do secure its national interests unilaterally.

More significantly, these milestone documents highlight the special relationship that Canada shares with the United States, and acknowledges the importance of ensuring that the Canadian Forces are able to fight alongside the United States military for the security of North America, as well as the increasing number of American-led coalitions to secure and stabilize failed or failing states.

As the only global superpower, the United States military sets the standard for interoperability; providing the thrust for Western militaries to be interoperable, both technically and within an operational framework, in order to work in an effective coalition against terrorism. As such, it is imperative that the Canadian Forces remain interoperable with the United States at the strategic, operational, and tactical levels of war, enhancing Canada's combat capability and taking advantage of American military might – anything less would render the Canadian Forces irrelevant and risk national security. The time is now for strategic direction to Canada's military on interoperability.

***In this increasingly unstable international threat environment, Canada must have armed forces that are flexible, responsive and combat-capable for a wide range of operations, and that are able to work with our allies.***

***– Canada’s National Security Policy, released 27 April 2004<sup>1</sup>***

## INTRODUCTION

Interoperability between the Canadian Forces (CF) and its principal allies such as the United States (US) and the United Kingdom (UK) is not a new concept or national objective for Canada. In World War II, the success of the Normandy invasion, Operation Overlord, was largely due to the interoperability of allied forces at the strategic and operational levels, and to a lesser extent at the tactical level.<sup>2</sup> This incorporated interoperability in strategic planning for the invasion as a whole, including national policies, objectives, and desired end-state. Specifically, the commitment of Canada, the UK, and the US to be interoperable in critical areas such as concepts, doctrine, intelligence and information sharing, coordinated planning, and equipment, in their execution of Operation Overlord was truly remarkable. Despite the shortcomings amongst allies and services participating in the Normandy invasion, the ability of Canada’s military to be interoperable with the US and the UK militaries overwhelmingly contributed to Canada’s success on the beaches of France and her relevancy as a military on the world stage.

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<sup>1</sup>Privy Council Office, *Securing an Open Society: Canada’s National Security Policy* (Ottawa: Privy Council Office, April 2004), 50. The theme “able to work with our allies [interoperability],” taken from the introductory quote, is stressed throughout the National Security Policy.

<sup>2</sup>Danford W. Middlemiss and Denis Stairs, “The Canadian Forces and the Doctrine of Interoperability: The Issues,” in *The Canadian Forces and Interoperability: Panacea or Perdition?*, ed. Ann L. Griffiths, 1-45 (Halifax: Dalhousie University Press, 2002), 34. In 1940 President Roosevelt and Prime Minister King established the Canada-US Permanent Joint Board on Defence (PJBD). Roosevelt went so far as to state, “. . . that the people of the United States would not stand idly by if domination of Canadian soil is threatened by an other Empire.”

Leaping forward to today, the CF faces new challenges in a troubled international security environment. Canada's military relevancy is continuously being questioned by all walks of life domestically, as well as by her principal allies such as the US and UK. As recently as March 2005 in Ottawa, the outgoing US Ambassador to Canada, Paul Cellucci, questioned Canada's commitment to the international security environment and urged the Prime Minister to take a more active role in international security.<sup>3</sup> If we are to heed the Ambassador's advice (and the majority of Canadians believe that we should),<sup>4</sup> then maintaining a high degree of combat capability for the CF to be relevant contributors to the international and domestic security environment will no doubt require interoperability with our principal allies, particularly the US and UK – as demonstrated during the Normandy campaign.

*Shaping the Future of Canadian Defence: a Strategy for 2020*, released in 1999, lists interoperability as a primary strategic objective. *Securing an Open Society: Canada's National Security Policy*, released in 2004, recognizes interoperability as a cornerstone of national and international security. Both documents underline the importance of interoperability and Canada's special relationships with her key allies

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<sup>3</sup>Terry Pedwell, "Canada Must Boost Clout, Cellucci Says," *The Ottawa Sun*, 15 March 2005, 9.

<sup>4</sup>Doug Saunders, "Canadians Split Over Future Role of Military," *The Globe and Mail*, 11 November 2002, [journal on-line]; available from <http://www.theglobeandmail.com/series/remembrance/stories/military.html>; Internet; accessed 18 April 2005, 1. Taken from a *Globe and Mail* poll, Saunders writes, "Canadians overwhelmingly want to see more money spent on the armed forces [75% agree] . . . ." Also in: Robert Fife, "Most Want Surplus Spent On Medicare, Defence," *National Post*, 3 January 2003, [journal on-line]; available from <http://www.polara.ca/new/LIBRARY/SURVEYS/spending.htm>; Internet: accessed 18 April 2005, 1. Fife comments on a confidential poll obtained by the National Post that the majority of Canadians ". . . want to beef up military spending." In the document: Department of Finance Canada, *The Budget Speech 2005* [journal on-line]; available from <http://www.fin.gc.ca/budget05/speech/speeche.htm>; Internet; accessed 18 April 2005, 13-14, the Liberal Government responded to public demands with increased funding and commitment to the CF. The increase in defence budget met favourably with the official opposition, who had concurred with Cellucci's call for an increase in defence spending; Anne Dawson, "Budget Almost Guarantees Survival of Grit Government – For Now," *CanWest News Service*, 24 February 2005, [journal on-line]; available from [http://www.canada.com/finance/rrsp/budget\\_2005/story.html](http://www.canada.com/finance/rrsp/budget_2005/story.html); Internet: accessed 18 April 2005, 1-2.

(heavily emphasizing the US), as well as the importance of NATO and UN member nations (heavily emphasizing the US, the UK, and Australia). Clearly the US sets the standard as the only global superpower and is the impetus behind the push for most Western industrialized democratic nations' militaries to be interoperable, both technically and within an operational framework. As in the past, the Canada-US defence relationship must remain strong in the future for Canada to best leverage defence capabilities in support of her national interests. This paper will argue that for the CF to remain a relevant contributor nationally and internationally, it must be fully interoperable with the US military.

### **Scope of Discussion**

This paper will define interoperability in a CF context so as to fully delineate the broad scope of its requirement at various levels within the CF. Although interoperability with the US is essential at the tactical level for combined operations,<sup>5</sup> this paper will focus mainly on the strategic and joint operational level, dealing mostly with critical capabilities vice platforms. References to the tactical level and environmental services will be made where appropriate.

In addition, CF interoperability with the US will be addressed within the context of the Revolution of Military Affairs (RMA) and transformation, and argue that Canada's relevance hinges upon the importance of Canada keeping pace with the US. Key Canadian security and defence policy documents (such as Canada's new National

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<sup>5</sup>At the tactical level, the CF has enjoyed its greatest interoperability with the US military on recent deployments to Kosovo, the Balkans, Afghanistan, and the Persian Gulf. That being said, this tactical success was more so with CF-US maritime forces than air and land forces, which had some significant challenges with complete US interoperability in Kosovo and Afghanistan.

Security Policy), which attempt to define the CF's current and future roles, will be analyzed with a view to evaluating the importance of Canada-US interoperability.

This paper will also explore arguments against the pursuit of CF interoperability with the US, in the context of international and domestic operations, and the potential consequences for Canada. Finally, it will look at leveraging US-led initiatives, such as the Coalition Warrior Interoperability Demonstration (CWID),<sup>6</sup> to enhance CF-US interoperability, and conclude with a discussion on the way ahead for the CF to maximize its relevancy on the international and national stage.

## **WHY INTEROPERABILITY BETWEEN THE CF AND THE US MATTERS**

### **Interoperability Defined**

There exists no official Canadian definition of *interoperability*. Both Canada and the US make use of the NATO definition of interoperability:

. . . [the] ability of systems, units or forces and to provide services to and accept services from other systems, units or forces and to use the services so exchanged to enable them to operate effectively together.<sup>7</sup>

Whilst this definition is suitable for the standard technical applications of interoperability (mostly at the tactical level as it applies to systems and equipment), it does not

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<sup>6</sup>The author of this paper was the CF national lead for the Joint Warrior Interoperability Demonstration (JWID) programme (changed to CWID in June 2004 to better reflect the "Coalition" emphasis on interoperability), from July 2001 until July 2004. The programme evolved from a US-centric, tactical level, service to service, technology-based demonstration, to its present US-led coalition interoperability testing and development, primarily at the joint operational level to include doctrine and procedures, as well as the traditional technical facets.

<sup>7</sup>Danford W. Middlemiss and Denis Stairs, "The Canadian Forces and the Doctrine of Interoperability: The Issues," in *The Canadian Forces and Interoperability: Panacea or Perdition?*, ed. Ann L. Griffiths, 1-45 (Halifax: Dalhousie University Press, 2002), 6.

incorporate the broader scope of interoperability at the strategic and joint operational levels, which is imperative in the discussion of CF-US interoperability.

The *CF Joint Operating Concept 2012* uses three broad categories for interoperability<sup>8</sup> that are more applicable for this paper's argument on the imperatives of CF-US interoperability. They are *information*, *cognitive*, and *physical or behavioral* interoperability. *Information interoperability* deals with the way we share information; *cognitive interoperability* deals with the way we perceive and think; and *behavioral interoperability* deals with the way we act.

If we were to take the NATO definition of interoperability and incorporate the categories listed above, what we are talking about (in layman's terms) is ensuring that the many facets of interoperability can be seamlessly integrated to enable forces to effectively execute operations together.<sup>9</sup> This includes areas such as interoperable concepts, capabilities, doctrine, procedures, Rules of Engagement (ROE), organizations, information sharing, technologies, networks, equipment, and most importantly, trained personnel who work together to execute the mission at all levels. In the case of the CF remaining a relevant contributor, it is in these areas that it must strive to be fully interoperable with the US, which has not necessarily been the case in the past.<sup>10</sup>

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<sup>8</sup>Department of National Defence, *CF Joint Operating Concept 2012* (Ottawa: DND (DGJFD), 24 July 2003), 2.

<sup>9</sup>Middlemiss and Stairs, "The Canadian Forces . . .," 6-8. Many policy and doctrine publications continue to "dance" around the word "interoperability" for various reasons, including mistakenly believing that it is a "technology-only" term (dealing with protocols, software, networks, etc). As such, this paper uses the term "interoperability" to include: compatibility, interchangeability, commonality, integrateability, and standardization, to name several terms found in CF publications.

<sup>10</sup>This paper will not discuss a lengthy list of areas that are not interoperable or need improvement with the US military, however, there will be discussion and recommendations on where the CF needs to better focus its unity of effort for US interoperability at the joint operational and strategic level.



## Why the US Should Be the Benchmark for CF Interoperability

*Even amidst the tumult and the clamour of battle, in all its confusion, he [the commander] cannot be confused.*

*- Sun Tzu, The Art of War<sup>11</sup>*

With a regular and reserve force strength of approximately 60,000 and 23,000, respectively, it is generally acknowledged that CF components and organizations will not normally deploy unilaterally in a CF-only operation. Rather, future deployments will likely continue to see elements of the CF as part of a coalition and/or alliance, which will be either NATO, UN, or US-led (or a combination of the three). It is also acknowledged that the US will continue to play a major role in international security and in all likelihood continue to lead major operations such as the ones ongoing in the Balkans, Afghanistan, and Iraq.

With the UN's relevancy and "lack of action" constantly being questioned by world leaders, including Canada,<sup>12</sup> it will be the US's resolve, or at a minimum their military resources, that will lend credibility to future UN missions. Likewise, the recent developments in Europe have seen NATO increase its members to 26 nations, which has caused the once predominantly interoperable organization to have monumental challenges in maintaining basic necessities such as interoperable doctrine and

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<sup>11</sup>Sun Tzu, *The Art of Warfare*, ed. and trans. Roger Ames (Toronto: Random House of Canada Limited, 1993), 120. In current "coalitions of the willing" all sorts of standards of doctrine, procedures, protocols, and technologies exist. There must be one central, common standard, for all militaries to use and ensure that it is common knowledge, thus minimizing confusion and potential fratricide, whilst enhancing interoperability.

<sup>12</sup>CBC News, "Dallaire Rages at Lack of Action on Sudan," [journal on-line]; available from <http://www.cbc.ca/story/canada/national/2004/09/01/dallaire040901.html>; Internet; accessed 21 April 2005, 1-2. Retired CF General and newly appointed Senator, Romeo Dallaire, lashed out at the UN and the Canadian government for lack of leadership in Africa. Also in: Editorial, World Briefs, "UN OKs Force for Sudan," *The Ottawa Sun*, 25 March 2005, the UN is criticized for its lack of action in Africa.

communication systems.<sup>13</sup> Arguably, the plurality of NATO and diversity of national agendas has hampered NATO's ability to take the lead on operations as it struggles with interoperability within its own organization, let alone trying to integrate additional non-NATO nations into a cohesive unified force. This is further exacerbated with the emergence of the European Union (EU) as a formidable power in Europe, to include a desired EU military force, which has already assumed responsibility for NATO's former role in Bosnia.<sup>14</sup> This leaves only Norway, Canada, and the US as non-EU members who are part of NATO, thus leading to hard questions on the future of this organization.

What does this all mean for Canada and in the context of the CF? Firstly, at the risk of stating the obvious, Canada and the US share common core values and prosperity, with linked economies and demographics, and shared histories and geography. Even when they disagree politically, as they did on the US-led invasion of Iraq, they are such like-minded nations that they manage to work through these challenges. Secondly, given that the CF will likely continue to deploy elements as part of a coalition, and that US-led coalitions will dominate the global security environment for the foreseeable future, it

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<sup>13</sup>With the increase in NATO to 26 nations and counting, the challenge of NATO interoperability has grown exponentially as "new NATO nations" (such as Bulgaria) and emerging "potential NATO nations" (such as the Ukraine) have joined, or will join NATO with non-interoperable technical and operational procedures. The former strength of NATO's "common standards" for technical and operational effectiveness is eroding, and the resources required to "fix the problem" are in competition with an emerging EU security force, (referred to as the European Security and Defence Identity, or ESDI).

<sup>14</sup>Major-General H. Cameron Ross and Nigel R. Thalakada, "Interoperability, Policy and Sovereignty: A Reaction to 'The Canadian Forces and the Doctrine of Interoperability,'" in *The Canadian Forces and Interoperability: Panacea or Perdition?*, ed. Ann L. Griffiths, 195-200 (Halifax: Dalhousie University Press, 2002), 196-197. The "trend in Europe" has moved towards an EU-led security force, away from the traditional support of NATO. Meanwhile, the US hegemony will likely continue, and the US has made it clear that it is serious about providing international security and global stability in the asymmetric threat environment that currently exists. It will maintain this resolve as part of a US-led coalition (vice unilaterally as in past operations prior to 11 September 2001), and not rely on UN or NATO-led missions to resolve global security issues. This is not to imply that Canada should participate in US-led missions only, or that the US will not support and/or participate in missions not led by the US. Clearly all UN or NATO-led missions, or EU-led for that matter, will have some element of US military forces and leadership components as part of their composition – no other nation can provide the resources required like the US (e.g. logistical support, strategic airlift, command and control, intelligence, etc).

stands to reason that CF elements will be integrated into US organizations. Lastly, although Canada will continue to be part of NATO and its operations<sup>15</sup> and support UN missions as it has done in the past,<sup>16</sup> current trends in NATO and UN leadership will bring into question their ability to lead and sustain future missions without direct US involvement. As such, Canada must focus its approach to interoperability with its primary ally, the US, at the strategic and operational level to ensure combat employability with the world's primary contributor.

Another compelling reason for the CF to use the US as its benchmark for interoperability is the reality that the other like-minded nations have chosen the US military as their benchmark.<sup>17</sup> Post-cold war, the US in essence, has replaced the “NATO standard” for interoperability.<sup>18</sup> As part of the America-Britain-Canada-Australia (ABCA) standardization initiative (involving like-minded, English-speaking armies), both Australia and New Zealand also use the US as their benchmark for

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<sup>15</sup>Privy Council Office, *Securing an Open Society . . .*, Canada's National Security Policy (NSP) emphasizes Canada's commitment to NATO. It is foreseeable that as long as NATO remains relevant to international security, Canada will continue to support. That being said, emerging roles for EU-led missions (vice NATO), and competition for military resources will likely lead to very intricate times for NATO to maintain its relevancy.

<sup>16</sup>*Ibid.* The NSP underlines the importance of Canada's commitment of military resources for UN missions as it has done in the past, to include the UN's multinational Standby High Readiness Brigade (SHIRBRIG) for UN-led operations such as Ethiopia-Eritrea deployment. Similarly to the NATO situation, changing roles for the UN (mostly in types of peacekeeping missions), and lack of military resources, have led to the questioning of its relevancy as a leader for military missions.

<sup>17</sup>Ross and Thalakada, “Interoperability, Policy and Sovereignty . . .,” 196. Ross and Thalakada list the US as the “benchmark” for interoperability in their paper. In addition, Middlemiss and Stairs, “The Canadian Forces . . .,” 5-7, 18-19, also point out the “US standard.” It is unmistakable that key NATO members (UK, France, Germany, Italy, Netherlands, and Norway) all use the US military for their standard of interoperability, which in turn drives the “NATO standard” for technical and operational interoperability.

<sup>18</sup>*Ibid.*, 196. The end-result of European members of NATO using the US as a benchmark for interoperability, is a central standard adopted by European nations, both large (e.g. UK, France, and Germany) and medium (e.g. Italy, Netherlands, and Norway) powers, that can execute a multinational mission, even if the US has a limited or supporting role – one technical and operational standard for all.

interoperability at all levels and services.<sup>19</sup> Although this often comes with some “US-centric baggage” which requires compromise and effort to incorporate into a nation’s strategic and joint operational organizations, Western nations have moved towards the “US standard” for interoperability.

It could be argued that such widespread conformity to US interoperability might jeopardize strategic decisions on military deployment or Americanization of joint operational doctrine and procedures. This will be discussed later on as this argument does not hold weight historically. Several nations, including Canada, have decided when, where, and how they will participate (if at all) in recent deployments such as the Balkans, Afghanistan, and Iraq, without jeopardizing national interests due to US interoperability. In Canada’s case in Afghanistan, initially the CF deployed an infantry battle group to be integrated into a US army brigade as part of the US-led coalition forces vice the UK-led International Security Assistance Force (ISAF) as part of NATO. Additional CF assets at the tactical and joint operational level were also deployed to support this mission. Follow-on deployments saw Canada as part of ISAF – the choice was the Canadian government’s, not that of NATO, nor the US. Despite several interoperability shortcomings with the CF’s Afghanistan deployment, Operation Apollo, a strategic decision was made: the CF mounted a joint operation, and an army tactical unit was

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<sup>19</sup>*Ibid.*, 196, and also in: Alan Ryan, *Australian Army Cooperation with the Land Forces of the United States: Problems of the Junior Partner* (Duntroon, Australia: Land Warfare Studies Centre, 2003). The Australian Defence Force (comparable to size and budget of the CF) uses the US military as their interoperability standard, as does the New Zealand Defence Force.

integrated and interoperable with the US to serve Canadian interests.<sup>20</sup> Follow-on CF deployments as part of NATO ISAF were also successful as ISAF's contributing nations emphasized interoperability with the US. This example could be used as a template on how to maximize the benefits of US interoperability.

Finally, the simple truth of the matter is that without American leadership driving the requirement for technical and operational interoperability, there would be no standard to adopt.<sup>21</sup> Given the CF's modest budget and size, but its high operational tempo, Canada can ill afford to make the wrong choice for technical and operational interoperability – US compatibility is vital to the CF.

### **What Direction Has Been Mandated to the CF on US Interoperability?**

*The key principles of the 1994 Defence White Paper continue to be relevant in today's uncertain international security environment . . .*  
*- Canadian Security and Military Preparedness, 2002<sup>22</sup>*

Canada has been criticized for several decades for having no foreign or defence

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<sup>20</sup>Ross and Thalakada, "Interoperability, Policy and Sovereignty . . .," 197. It should be noted that there were several interoperability shortcomings such as: strategic airlift and sustainment; the Land Force's C2 Information System (LFC2IS) could not interface with all joint and combined C2 systems; the joint CF Command System (CFCS) called "TITAN" could not fully interoperate with the Land Force's system, nor the US's Global Command and Control System (GCCS); the Land Force's acquisition of a "Sperwer" UAV which was not integrated into the CF joint or the US joint system – this platform was acquired outside the CF's joint UAV project; and several doctrinal issues including ROEs and targeting procedures.

<sup>21</sup>Medium powers such as Canada and Norway (that are part of NATO but not the EU), as well as Australia (that belongs to neither organization) can readily adopt US interoperability standards for doctrine, technology, equipment, etc, and participate in a wide gamut of operations from a NATO-led coalition in an Afghanistan-type theatre, to an Australian-led coalition in an East Timor-type theatre, in which the US may only wish to provide limited support. Rather than have a hodgepodge of standards to deal with, and an unwanted debate over "whose standards to use" (e.g. NATO? EU? A medium power as lead nation?), the US standard is widely practiced and effective. Whether or not the US participates is irrelevant, and unlike NATO, the EU, and the UN, the US military standard is not open for external debate.

<sup>22</sup>Douglas L. Bland, *Canada Without Armed Forces* (Montreal and Kingston: McGill-Queen's University Press, 2004), 1.

policy; preferring ad-hoc organizations as required by the government of the day.

Although the Defence White Paper mentioned above is over ten years old, several of the key principles listed in it are still relevant to the CF – of them, defence cooperation and interoperability with the US is dominant.<sup>23</sup> Similarly, as per the quote at the start of this paper (taken from the current National Security Policy), the 1994 Defence White Paper states,

Canada needs armed forces that are able to operate with modern forces maintained by our allies and like-minded nations against a capable opponent – that is they must be able to fight “alongside the best, against the best.”<sup>24</sup>

It goes on to add,

The United States is Canada’s most important ally and the two countries maintain a relationship that is close, complex, and extensive as any in the world.<sup>25</sup>

Despite its dated status, if one was to agree with the Government’s response to the *Senate Committee on National Security and Defence in 2002*, then the message is clear –

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<sup>23</sup>Department of National Defence, *1994 Defence White Paper* (Ottawa: Canada Communications Group, 1994), Chapter 5, paragraphs 30-33.

<sup>24</sup>*Ibid.*, Chapter 3, paragraph 25, and also: Canada Online, “Canadian Soldiers Killed in Afghanistan,” 18 April 2002, [journal on-line]; available from <http://canadaonline.about.com/library/weekly/aa041802a.htm>; accessed 24 April 2005. Despite this statement made in the 1994 Defence White Paper, in April 2002, four Canadian soldiers were killed and eight others were wounded when two US F-16 fighters accidentally bombed the members of 3<sup>rd</sup> Battalion of Princess Patricia’s Canadian Light Infantry Battle Group. Officially the accident was attributed to “misidentification” – the simple truth is that the US and CF militaries deployed with non-interoperable command systems, thus there were two different Common Operational Pictures (COP) of where friendly forces were, and were not (situational awareness). This confusion contributed to the death of CF members as the pilots were not given a clear picture of where CF forces were deployed. This is not to suggest that interoperable technology and procedures would have prevented this accident, however, it certainly could have presented better situational awareness to the US.

<sup>25</sup>*Ibid.*, Chapter 5, paragraph 30.

interoperability with the US is paramount.<sup>26</sup> Unfortunately a clear and simple statement such as “the CF will be interoperable with the US” has not been officially made; thus no clear direction or policy exists to ensure CF-US military interoperability.<sup>27</sup>

***Strategic Direction: Strengthen our military relationship with the US military to ensure Canadian and US forces are inter-operable [sic] and capable of combined operations in key selected areas.***  
***- A Strategy for 2020, June 1999<sup>28</sup>***

A more recent document released in June 1999, *Shaping the Future of Canadian Defence: A Strategy for 2020*, extensively addressed CF interoperability with the US. Although not a White Paper, this document was created to use as a “guide” for DND and CF strategic planners. Strategic “imperatives” were identified and eight long-term “strategic objectives” were listed as “main pillars” – one of them being interoperability.

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<sup>26</sup>If the message is clear, why then does the CF create dangerous “stovepipe systems” which do not interoperate with other services and joint staff, let alone the US military – such as various applications of the CF Command System (CFCS) “TITAN” unable to interface with the Canadian Army, Air Force, or Navy’s Command and Control (C2) Systems, and subsequently with the US’s joint Global Command and Control System (GCCS)? Why would Canada think of pursuing doctrine and organization structures that would not integrate with the US – such as the CF’s failure to fully adopt US joint doctrine? Why would the CF attempt to conduct research and develop of capabilities and platforms in isolation of the US and risk them being obsolete or unable to be combat-capable with US forces – such as Canada’s continuance to develop and build “one of a kind” wheeled logistical platforms (light and medium-lift trucks) and armoured vehicles (Coyote and other armoured vehicles)? Rhetorical in nature, these questions cannot be answered. They represent examples of the government stating one policy (interoperability and cooperation with the US), but allowing the Department of National Defence (DND) and the CF to pursue another policy.

<sup>27</sup>Despite the requirement, there exists no official policy or document directing the CF to be fully interoperable with the US military, less the document: *Shaping the Future of the Canadian Forces: A Strategy for 2020*. It should be noted that this publication is not an official government publication, and is considered a “rogue” document in some political circles due to its apparent pro-US undertones. The danger of not having clear direction for CF-US interoperability can result in personal agendas driving requirements for CF capabilities that will not work in a US-led operation. An example of this occurred during JWID 2004 when several applications failed between the CF command system, “TITAN,” and internal environmental service systems, as well as the US “GCCS” system (less the Canadian Navy who ensured that their system was interoperable with both the CF joint system and with the US Navy). Another example occurred during the Afghanistan deployment, when the Army was permitted to acquire “Sperwer” UAVs at their level, without interfacing with the CF joint UAV project, which had been ensuring interoperability with the US for doctrine, procedures, and technology for seamless employment of this resource. Although the Army UAV issue was “made to work” in the end, this is not the ad-hoc approach to interoperability that the CF should pursue when desiring new capabilities.

<sup>28</sup>Department of National Defence, *Shaping the Future of the Canadian Forces: A Strategy for 2020* (Ottawa: DND (CDS), June 1999), 6.

Several short-term “targets” were created within each objective – looking five years out.<sup>29</sup> In addition, and in keeping with other strategic documents for the CF and DND, Canada’s “special relationship” with “principal allies” is emphasized. What this, and other documents imply is a clear focus on the US military (followed by NATO and the UN to a lesser extent). This document stresses the CF-US military imperative as:

Our most important ally now and for the future is the United States where our strong relationship has long benefited both countries. We must plan to nurture this relationship by strengthening our interoperability with the US Armed Forces, training together, sharing the burden for global sensing and telecommunications and pursuing collaborative ways to respond to emerging asymmetric threats to continental security.<sup>30</sup>

Further emphasis on interoperability between CF-US military is included as one of the strategic objectives:

Objective 5: Interoperable – ‘Strengthen our military to military relationships with our principal allies ensuring interoperable forces, doctrine, C4I (command, control, communications, computers, and intelligence).’<sup>31</sup>

The three short-term targets identified to achieving this strategic end-state, require DND and the CF to:

- [1] Manage our interoperability relationship with the US and other allies to permit seamless operational integration on short notice
- [2] Develop a comprehensive program to adopt new doctrine and equipment compatible with our principal allies
- [3] Expand the joint and combined exercise program to include all environments and exchanges with the US<sup>32</sup>

Based on the above information, if one was looking for policy planning guidance

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<sup>29</sup>Department of National Defence, *Shaping the Future of the Canadian Forces . . .*, 5-8.

<sup>30</sup>*Ibid.*, 8.

<sup>31</sup>*Ibid.*, 10.

<sup>32</sup>*Ibid.*, 10.



for CF-US interoperability, *A Strategy for 2020* is relatively clear. Does the document lack substance to back up this “strategic guidance” or enough visibility for pan-CF and DND “buy in” at the strategic, joint operational, and eventually tactical level? As mentioned, this document is not a White Paper and has no “formal” government approval.<sup>33</sup> Subsequent papers were released in 2001-2002 to complement this document and flesh out interoperability as a critical objective for the CF.<sup>34</sup> What is lacking is a government endorsed, clear directive, that simply states the “CF will be fully interoperable with the US military,” or words to that effect. From a military perspective this is a “no-brainer,” it makes sense at all levels of the CF to be interoperable with the US – *A Strategy for 2020* supports this view. Nonetheless, senior bureaucrats, both in and outside of DND, are fearful of Canada’s autonomy if we took this hard-line, and mindful that senior military officers are “too eager” to get in bed with the Americans – this will be discussed later in this paper.

***Interoperability of policies, systems and personnel is also a major national challenge that must be tackled.***  
***- Canada’s National Security Policy, April 2004<sup>35</sup>***

On 27 April 2004, a milestone was reached when Canada promulgated its first-ever National Security Policy (NSP). Once again, the US is at the forefront of a

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<sup>33</sup>Middlemiss and Stairs, “The Canadian Forces . . .,” 1-2. Only the Chief of Defence Staff and the Deputy Minister signed *A Strategy for 2020*. CF joint staff may use it as “guidance.” Interoperability issues are referred to as “targets.” As mentioned, many regard *A Strategy for 2020* as a “rogue” document, believing it to be an attempt by Generals and Admirals to force the government to produce a new Defence White Paper. The lack of any formal document issuing the CF with clear direction on technical and operational interoperability standards results in too much leeway amongst the environmental and joint staff to pursue individual agendas – this is a dangerous approach to interoperability.

<sup>34</sup>*Ibid.*, 23-25. Subsequent documents, *Defence Plan 2004* (DND 1 T49-0.0022 4 0.00153) 34 0 ncedn,

government document dealing with DND and the CF. The US is mentioned 34 times in the NSP, compared to five times for the UK and three for Australia – clearly this was a message from Prime Minister Martin’s government to both Canadian government departments and US authorities. The NSP articulates three core national security interests as,

1. protecting Canada and Canadians at home and abroad;
2. ensuring Canada is not a base for threats to our allies; and
3. contributing to international security.<sup>36</sup>

All of these areas incorporate various capabilities of the CF to adopt an “integrated” security system to better prepare Canada for current and future threats. That being said, when it comes to specifics on the CF’s role within the NSP, the document refers to “cooperation,” “collaboration,” and “working closely,” with “close allies” and “international partners.”<sup>37</sup> For international security, the NSP goes so far as to state,

The Government is committed to ensuring that the Canadian Forces are flexible, responsive and combat-capable for a wide range of operations, and are able to work with our allies.<sup>38</sup>

Although a comprehensive document, it would serve DND and the CF better if it would clearly articulate the concept of interoperability with the US discussed earlier, vice ambiguous statements such as “keeping pace and integrating with our key allies.”<sup>39</sup>

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<sup>36</sup>*Ibid.*, vii.

<sup>37</sup>*Ibid.*, Throughout the NSP document, the importance of the US as an ally, as well as the ability to interoperate for security issues is highlighted.

<sup>38</sup>*Ibid.*, x-xi.

<sup>39</sup>*Ibid.*, 22-23. One area in the NSP that does clearly articulate interoperability is the section on Emergency Planning and Management, referring to the CF’s role in national emergencies and Canada-US military planning to support civil authorities.

Lastly, the NSP refers to “relevance of the CF” and national security interests when considering strategic deployments,<sup>40</sup> and working with like-minded militaries to “enhance the relevance” of both NATO and the UN.<sup>41</sup> Unmistakably the NSP emphasizes that an “integrated” (or preferably “interoperable”) security system is a must for the CF to effectively operate for national security interests.<sup>42</sup> With minor clarifications, the NSP is a very valuable document for CF strategic and operational planners. Furthermore, unlike *A Strategy for 2020*, the NSP is a government-sanctioned document. The message in the NSP is clear; the US is our main international partner. This must be adopted by DND and clear direction issued to achieve and maintain US interoperability, otherwise not only does it risk CF irrelevancy, but also risks weakening Canada’s national security.

### **Canada, the US, and Transformation**

*... we must be prepared to defend our citizens, our economy, our infrastructure, our economic systems, and even our way of life.*  
*- John McCallum, Minister of National Defence, October 2002<sup>43</sup>*

No discussion on CF interoperability with the US would be complete without some mention of the Revolution in Military Affairs (RMA).<sup>44</sup> This modern warfare that

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<sup>40</sup>*Ibid.*, 50.

<sup>41</sup>*Ibid.*, 51.

<sup>42</sup> *Ibid.* Not as evident, but implied throughout the NSP document (using different wording), is that in order to combat current and future threats the CF must be integrated, and by extension interoperable.

<sup>43</sup>Bland, *Canada Without Armed Forces* . . . , xi.

<sup>44</sup>In layman’s terms, the RMA is a US-led transformation of Western militaries unmatched in the past, and part of the ever-changing information age that we live in due to the rapid advancement of technologies and capabilities. RMA engages doctrinal, conceptual, organizational, and technological transformation and change for like-minded nations.

uses a “network-enabled battlespace” or the idea of “full spectrum dominance,”<sup>45</sup> and that like-minded nations have adopted to “transform” their militaries, can be summed up in one acronym, “C4ISR” or Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance. If the CF is to “keep up with the Joneses” (the US), then it must enhance and maintain its C4ISR capability, otherwise risk irrelevancy in terms of “plug and play” with US-led international missions and thus receive access to vital data and information for national interests. NATO cannot provide this capability without the US. Also, both the EU and the UN require US leadership and resources to provide C4ISR capabilities for current and future missions. Whether or not other nations’ militaries will be advanced enough to interoperate with this capability is a topic for another discussion, however, the previous Minister of National Defence was clear:

If we truly believe in collective security, if we believe we can and should make a difference in the world, and if we believe we must be prepared to back our values with action when required, then we must accelerate the transformation of our defence and security establishment and get out in front of the changes reshaping our security environment.<sup>46</sup>

This US-led transformation will continue to yield new operational concepts such as Effects Based Operations (EBO) and Network Centric Warfare (NCW), as well as changes to doctrine, organizations, equipment, and training, to name but a few.<sup>47</sup> RMA and transformation of the US military will seriously impact on nations being

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<sup>45</sup>Colonel C.M. Fletcher, “Canadian Forces Transformation: Bucking the Trend – Interoperability Trumps ‘Jointness,’” (Toronto: Canadian Forces College Advanced Military Staff Course Paper, 2003), 1,7.

<sup>46</sup>Department of National Defence, *CF Joint Operating Concept . . .*, 1. Also quoted in: Fletcher, “Canadian Forces Transformation: Bucking the Trend . . .,” 6.

<sup>47</sup>Although there are several new and emerging concepts, EBO and NCW have dominated discussions in the last few years and are being fully embraced by the US military, led by US JFCOM. It should be noted that NCW is referred to as Network Enabled Operations in Canada.

interoperable with American forces. Canada can ill afford to unilaterally transform its forces for unique Canadian solutions to international security concerns.<sup>48</sup> The risk of not transforming the CF to achieve seamless interoperability with the US, could result in non-compatible operational and tactical technologies, or worse – the US could label the CF a “non-player” on the world stage.

### **Drivers of Change and the Challenges of Procurement and Sustainment**

*Failure to adapt our processes to rapidly acquire new systems in synchronization with our allies will lessen our combined interoperability.*  
*- Director General Strategic Planning, 1999<sup>49</sup>*

A primary driver of change in the US military is the advancement in technologies that have yielded greater precision, lethality, and long-range strike capability in weaponry; resulting in a singular merged air, land, and sea “joint battlespace.”<sup>50</sup> For Canada, the fiscal reality dictates that the CF cannot develop all desired capabilities for

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<sup>48</sup>Elinor C Sloan, *The Revolution in Military Affairs* (Montreal and Kingston: McGill-Queen’s University Press, 2002), 132-133. In Sloan’s book on the RMA, she lists interoperability as an important element of transformation, “Central to the move towards increased jointness at the national level, and combined operations at the international level . . . .” She comments on several past shortcomings involving interoperability between CF and US systems and technologies, but tries to spin a positive light, stating that the CF is “taking steps” and “all [interoperability] shortfalls are being addressed.” Less the CF-US Navies, most of the shortcomings listed by Sloan at the joint operational (joint C2 systems) and tactical level (land and air C2 systems) in 2002, are still non-interoperable with their US counterparts in 2005. In addition, a key CF initiative that Sloan referred to as the “Joint Command and Control Intelligence System,” (actually called the Joint Fusion Information and Intelligence Centre, JFIIC, which is supposed to link into CFCS “TITAN”), that was to be in place in 2003, did not commence its initial “start-up” until the summer of 2004, and has yet to become operational and interface with much needed US systems and data.

<sup>49</sup>Department of National Defence, *Interoperability – The Challenge in 2010* (Ottawa: DND (DGSP), 1999), 6.

<sup>50</sup>With today’s C4ISR capabilities, in a US-led scenario, a strategic asymmetric threat’s asset can be jointly identified, and processed for targeting (supported by all services), whilst awaiting national approval in accordance with ROEs, followed by immediate delegation down to the tactical level for prosecution of the target. This is the US military’s “joint battlespace” – from sensor (strategic Unmanned Aerial Vehicle or UAV) to shooter (an infantry soldier receiving the order to execute via a wireless display monitor). This compressed strategic-to-operational-to-tactical “joint battlespace” is a reality of today’s international conflicts and the CF must have doctrine, technology, and procedures, interoperable with the US to participate.

environments and joint organizations to effectively fight in this “joint battlespace.” The CF must be cautiously selective and strategic, and regiment a “top-down” procurement, vice “bottom-up,” which often leads to not being interoperable with other CF environmental and joint staffs, let alone US forces.<sup>51</sup> As stated by Director General Strategic Planning:

Procurement of joint systems to meet joint requirements will require specific emphasis and resource allocation at the strategic level.<sup>52</sup>

Whatever capabilities and equipment the CF chooses to invest in cannot be “bottom-up buy and forget” options.

***While interoperability at all levels can often be achieved for short periods of time, sustaining it consistently will demand a continuous evolution in concepts.***  
***- Director General Strategic Planning, 1999<sup>53</sup>***

Sustainment of emerging joint capabilities is a huge challenge, and in a US-led coalition, armed forces with logistical capabilities that are not interoperable will be deemed “no added value” to an international security force. Dr. Douglas Bland of Queen’s University gives countless lessons learned regarding NATO’s logistical problems in the early 1980s and the requirement to promote interoperability to counter

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<sup>51</sup>Procurement during the Cold War (and some would argue even today), was more or less bottom-up, at the tactical level, driven by “service requirements,” e.g. if the Army wanted a capability, it would request it at Unit level to get it – standards and requirements for technologies and procedures to be interoperable with the higher joint operational level did not necessarily matter. This paper supports the view that in the post-Cold War (and the likelihood of facing an asymmetric threat), it is essential that top-down procurement with fully interoperable capabilities be mandated. Environmental services can or may modify additional capabilities if required, however, national and international interoperability must remain the number one priority.

<sup>52</sup>Department of National Defence, *Interoperability – The Challenge in 2010 . . .*, 7.

<sup>53</sup>*Ibid.*, 1.

the Warsaw Pact advantage.<sup>54</sup> In the article *The CF and the Doctrine of Interoperability*, Drs. Middlemiss and Stairs discuss in great deal the imperatives of interoperability with the US in the 1999 Kosovo campaign as well as operations in the Persian Gulf in 1990/91. They list interoperable successes, mostly at the tactical level, with the CF's maritime contribution in the Persian Gulf in 1990-91. The air contribution experienced several interoperability shortcomings with technology and equipment for the CF-18 A/B model. For example, the lack of secure communications equipment to interoperate with the US air component to “. . . sustain secure transmissions . . .” with the US anti-aircraft cruisers, providing fleet security was serious. Other shortcomings included: no secure voice radio communications; no strategic refueling capability; and limited Precision Guided Munitions (PGMs). Sustainment of the CF contingent lacked interoperability with the US military, from ammunition and fuel, to strategic airlift, and diminished combat effectiveness.<sup>55</sup>

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<sup>54</sup>Douglas L. Bland, “Military Interoperability: As Canadian as a Beaver,” in *The Canadian Forces and Interoperability: Panacea or Perdition?*, ed. Ann L. Griffiths, 49-63 (Halifax: Dalhousie University Press, 2002), 52-54. Several examples of equipment, technology, and procedures are listed that are not interoperable with the US, yet deployed by the CF on US-led operations.

<sup>55</sup>Middlemiss and Stairs, “The Canadian Forces . . .,” 18-21. Several tactical level issues are discussed which CF environments are attempting to remedy as part of the “lessons learned-approach” from the Persian Gulf (Operation Friction) and Kosovo (Operation Echo) conflicts. It cannot be stressed enough the seriousness of the CF lacking interoperability with the US for these two missions. CF personnel were put in additional harms way or forced their US counterparts to alter their doctrine and procedures to accommodate CF (and other nations) shortcomings. For Operation Friction, evasive manoeuvres for the CF-18s, different than US procedures, would have had to be used by CF pilots due to lack of “Havequick” technology (secure voice) by Canada, adding additional risk to sorties – less desired “higher altitudes” were used to accommodate the CF.

Many of these shortcomings resurfaced during the Kosovo campaign.<sup>56</sup> The continued lack of secure voice communications for the CF-18 A/B limited its operational use in the campaign, and strategic refueling and airlift greatly impacted sustainment. Recent deployments to the Balkans and Afghanistan have experienced similar deficiencies, with additional examples such as incompatible joint operational command systems (CFCS and GCCS mentioned earlier), which effected operational efficiency – the inability to “share” CF-US information on logistic resources, or “total asset visibility.”<sup>57</sup>

Sustainment of CF forces has become almost totally dependent on US support, from strategic airlift and refueling, to land and maritime re-supply of deployed troops. The CF must be able to command, control, and sustain its deployed forces at all levels of war. Whilst Canada’s contribution to recent conflicts has been modest in the bigger picture, it has been significant nonetheless. The inability to sustain Canada’s deployed forces in a US-led coalition jeopardizes CF combat capability.

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<sup>56</sup>Bruce R Nardulli, *Disjointed War: Military Operations in Kosovo, 1999* (Arlington, Virginia: RAND Corporation, 2002), 120-121. For Operation Echo, basic equipment such as: secure radio; “Link 16;” Global Positioning System (GPS); night-vision goggles; helmet-mounted sights; and, Forward Looking Infrared (FLIR), all impacted on the CF contribution and added further danger to pilots. If unchanged, this lack of interoperability with US air components will lead to being labeled a “non-player” by the US, or at a minimum, result in CF contingents being relinquished to simple escort missions.

<sup>57</sup>Numerous operational sustainment deficiencies were identified prior to recent deployments to the Balkans and Afghanistan, however, there is not significant movement by senior DND/CF leadership to rectify them, such as: strategic airlift; Common Operation Picture (COP) interoperability; Defence Total Asset Visibility (DTAV) interoperability with US logistical systems (often referred to as “shared” or “focused logistics”); common Situational Awareness (SA) system; “Blue-Force” tracking capability to reduce fratricide incidents; and, the CF-to-US military C2 operational systems (CFCS-to-GCCS).



## International and Domestic Operations

***Given the potential scope of conceptual and doctrinal changes in the next decade, the allocation of resources in this critical area needs to be addressed and, where necessary, rationalized.***

***- Director General Strategic Planning, 1999<sup>58</sup>***

Internationally, the CF must also be attentive of new and emerging doctrine effecting how it will operate at various levels with other militaries, agencies, and departments in the “international battlespace.” If Canada is to continue to contribute forces as part of US-led coalitions, then given that the US, not NATO, has spent considerable effort since Gulf War I at the operational level to develop joint doctrine, it makes sense that the CF should integrate US joint operational doctrine into its forces. This is not to dismiss our commitment to NATO or the UN;<sup>59</sup> rather, it would better reflect our current and likely future deployments within US-led coalitions.<sup>60</sup>

Domestically, CF disaster relief such as the Manitoba floods of 1997 or the Ontario-Quebec ice storm of 1999 has also seen the merging of the “domestic battlespace” into a smaller arena, which overlaps international operations. The NSP has listed several domestic initiatives to ensure that “. . . Canada is not a base for threats to

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<sup>58</sup>Department of National Defence, *Interoperability – The Challenge in 2010 . . .*, 3.

<sup>59</sup>Privy Council Office, *Securing an Open Society . . .*, 47-49, 51-52. As stated, Canada remains committed to providing resources to both NATO standing forces and the UN’s SHIRBRIG organizations, which was reemphasized in the recent NSP released 27 April 2004.

<sup>60</sup>Ross and Thalakada, “Interoperability, Policy and Sovereignty . . .,” 196-197. Instead of carrying NATO, US, UK, and “CF-hybrid” joint operational doctrine in several publications and teachings at staff colleges, the CF should adopt US doctrine and “modify” only if required. Other nations’ doctrine should be monitored (with a view to using only when required), but not be allowed to initiate “mission creep” into the CF because an individual and/or department prefer “the UK approach” or the “Australian approach.” Currently, on any given day, it is a fair assessment to state that staff at the joint operational level are using a “hodgepodge” of NATO, US, UK, Australia, French, and CF-hybrid doctrine – this is not an effective way to standardize operational headquarters.

our allies . . . .”<sup>61</sup> With the recent reorganization of the Department of Public Safety and Emergency Preparedness Canada (PSEP-C), the government is making a strong effort to have a central agency (PSEP-C), coordinate domestic threats that include everything from a “dirty bomb” detonation along the Canada-US border to simply tracking suspected terrorist movement in Canada. Regardless of the scenario, this is new ground for the CF as it means greater interoperability with Other Government Departments (OGDs) and Non-Governmental Organizations (NGOs) for domestic operations.

Due to the common geography and integrated society that we share with the US, it also requires greater interoperability and information sharing with US organizations such as the Federal Emergency Management Agency (FEMA) and US Northern Command (NORTHCOM) who are charged with US domestic security.<sup>62</sup> The observations made in the 1994 Defence White Paper are still a propos in that:

. . . Canada will continue to rely on the stability and flexibility its relationship with the United States provides to help meet this country’s defence requirements in North America and beyond.<sup>63</sup>

The fact that the government has both in the past, and currently acknowledged its reliance on US support to defend Canada’s territories should quash all nay-sayers who

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<sup>61</sup>Privy Council Office, *Securing an Open Society* . . . , vii. Throughout this document, domestic initiatives are mentioned to ensure the safety of the Canadian public. Full cooperation with US organizations such as Northern Command (NORTHCOM), US Federal Emergency Management Agency (FEMA), etc, are accentuated as key players in combating threats on Canadian soil.

<sup>62</sup>No other nation in the world has a comparable situation to Canada-US ntior5-1(s2((, )no o)-5 evth)-5ion thUKUS

question the reasoning for US interoperability.<sup>64</sup> The government has demonstrated that it will not hesitate to use the CF in domestic operations, including difficult ones such as the Oka crisis in the 1990s or the FLQ crisis in Quebec and Ontario in the 1970s. With a “shrinking battlespace” and a legitimate asymmetric threat, the CF must be interoperable with their US counterparts to protect Canadian territory.

### **Is US Interoperability “a Must” for the CF, and at What Cost?**

In Dr. Bland’s article *Military Interoperability: As Canadian as a Beaver*, one can interpret his pro-American and complacent-Canadian tone as somewhat cynical, especially when he refers to nay-sayers of Canada-US interoperability:

. . . Canada’s prudent leaders, from all times and all parties, preach against interoperability [with the US], but only like Br’er Rabbit, pleading not to be thrown into the briar patch. Interoperability as dependence is the perfect defence concept for Canadian politicians . . . the best advice to them [Canadian politicians] is not to throw it away but to embrace it, always go with proven expediencies.<sup>65</sup>

What Dr. Bland is stating tongue-in-cheek is reality; we have profited immensely in the past by promoting interoperability with the US. Interoperability should not be regarded however as just a cost-savings to Canada, nor should the CF adopt Dr. Bland’s

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<sup>64</sup>Despite recent setbacks in Canada-US relations, the government continues to stress the requirement for Canada to have strong relations with the US – especially as they apply to security issues. Recent “speed bumps” as referred to by both President Bush and Prime Minister Martin over the US-led Ballistic Missile Defence of North America have brought a plethora of anti-American criticism and a small, but vocal, “let’s go it alone” attitude by some Canadian activists. The fact remains, political disagreements have and will continue to occur, however, the government has not wavered on its policy of maximizing cooperation and compatibility with the US when it comes to the collective defence of North America.

<sup>65</sup>Bland, “Military Interoperability: As Canadian as . . .,” 62.

contemptuous definition:

. . . Canadian definition of interoperability – i.e., the defence of Canada by free-riding on the American eagle.<sup>66</sup>

Middlemiss and Stairs espouse a more favourable interpretation of Canada-US

interoperability:

In practice, Canada has always operated militarily overseas in coalitions with others . . . in the conduct of war . . . [and] enforcing of peace . . . most of Canada’s standing (or contingency) defence arrangements and commitments have been institutionalized in lockstep with the Americans in particular . . . Obviously not all of these arrangements have entailed technical interoperability for the Canadian Forces at the practical (that is, operational, or combat) level, but they have certainly encouraged it.<sup>67</sup>

Since 1940, when President Roosevelt and Prime Minister King first established the Canada-US Permanent Joint Board on Defence (PJBD), there has been a goodwill between the two military forces, and a desire to be interoperable – Canada can ill afford to let downsizing, budget cuts, and poor strategic decisions further erode the CF’s combat capability. The nay-sayers will continue to assert that CF-US interoperability will erode Canada’s sovereignty, ability to make independent strategic decisions, and force its leadership to tag along with US strategy and policy. Based on what? This is nothing more than scare tactics and politics with little logic or justification. When the opportunity is in Canada’s favour, of course we will “tag along” as we did in Afghanistan, Kosovo, and the Balkans. However, we opted out of an operational deployment to Iraq as well as the US’s strategic Ballistic Missile Defence (BMD) project – interoperability did not force us to participate.

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<sup>66</sup>*Ibid.*, 2.

<sup>67</sup>Middlemiss and Stairs, “The Canadian Forces . . .,” 3.

Opponents will concede that interoperability with the US at the tactical level may make sense to ensure combined operations can occur with like-services (e.g. CF ships working with US ships), however, they assert that Canada should develop its own joint operational doctrine and be self-sufficient so as to deploy as a “CF-complete” force from the strategic to tactical level.<sup>68</sup> Whilst this is an optimum goal the cost of sustainment of such a force, as well as the possible creation of a “uniquely Canadian” solution, risks labeling the CF as a “niche force” by the Americans with medium to low intensity employment, or worse, nothing more than a constabulary force.

Unlike the US, UK, or even Australia (with a similarly sized military), Canada has never embraced the desire to strategically deploy and conduct joint operations as an independent nation. Its unique relationship with the US allows Canadian leadership to make that choice and operate in coalition joint operations – a fully interoperable force will solidify this capability. The cost of not doing this will mean forfeiting US capabilities that are not interoperable with CF technologies, doctrine, procedures, or equipment. Would the government then be willing to step-up and provide the additional resources required? Probably not, and CF personnel would be either put in harms way or

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<sup>68</sup>As mentioned earlier, a frequent claim against a policy of US interoperability is the fear of committing CF resources to US-led coalitions only, thus ostracizing our traditional NATO and UN commitments. Firstly, the US is both a member of NATO and the UN so they still, despite current tensions, have an interest in both institutions. Secondly, as mentioned earlier, NATO is experiencing “competition” from an ambitious EU organization (which excludes Canada) and is not in as favourable a position for multiple security deployments as it had been in the past. Similarly, the UN is under heavy criticism for waffling on deployments that require leadership and forces to stabilize regions such as Sudan and other failed, or failing states in Africa. Lastly on this claim, regardless of whether it is a NATO or UN-led mission, it is safe to say that the US will provide both leadership and resources in support. The reality is that for the foreseeable future the US will be leading more and more coalitions to stabilize regions – not the UN, nor NATO.

be relinquished to participating in only “block one” of the “three-block war.”<sup>69</sup>

### **Leveraging US-led Initiatives for the CF – The Way Forward**

As stated earlier, the US has recognized the requirement to deploy as a part of a coalition and that the RMA has yielded concepts, doctrine, and technologies that the US intends to integrate into their military, but must be prudent to include their principal allies. As such, several of the nine US unified commands,<sup>70</sup> such as Joint Forces Command (JFCOM) and Northern Command (NORTHCOM), have promoted initiatives such as the Coalition Warrior Interoperability Demonstration (CWID) programme.<sup>71</sup> CWID is a unique opportunity for nations to annually participate in a synthetic environment, using a realistic asymmetric threat scenario to conduct technical interoperability trials at the joint operational and tactical level. CWID also examines concepts, doctrine, policies, and procedures, to include OGDs and NGOs, to tackle

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<sup>69</sup>Department of National Defence, *Army Transformation: Soldier's Guide* [journal on-line]; available from [http://www.army.forces.gc.ca/lf/English/5\\_4\\_1\\_1.asp?FlashEnabled=1&](http://www.army.forces.gc.ca/lf/English/5_4_1_1.asp?FlashEnabled=1&); Internet; accessed 25 April 2005, 1. General Charles Krulak, US Marine Corps, coined the phrase “three-block war” which the CF endorses as doctrine, and was supported by Canada’s International Policy Statement, released by Bill Graham, Minister of National Defence on 19 April 2005. The “three-blocks war” refers to fighting a war which has a “humanitarian, peace-support, and high-intensity” portion happening simultaneously, (such as in Somalia), requiring a highly combat capable force to deal with all “three-blocks.” This paper attests that the CF could be reduced to participating only in “block-one” (humanitarian aid and assistance) if it is not interoperable with the US, who will likely lead these types of future missions.

<sup>70</sup>US “Unified Commands” have been geographically organized to distribute global responsibility of US forces, such as “NORTHCOM” for defence of North America, “SOUTHCOM” for South America, “PACOM” for the Pacific Rim area, and “EUCOM” for European Command. Joint Forces Command, or “JFCOM” is responsible for Joint operations across the Unified Command structure.

<sup>71</sup>CWID is sponsored by NORTHCOM and led by JFCOM, and is one of the largest interoperability “testing beds” sponsored by the US military. This programme used to deal with just technology interoperability at the US joint and tactical level. It has now changed to better reflect the demand for interoperability with the US military amongst its principle allies, (primarily the UK, Canada, and Australia). In addition to ensuring new and emerging US technologies interoperate with other nations’ C2 systems and technologies prior to fielding them, CWID also focuses on doctrine and procedures within a synthetic Coalition operational environment, reflecting real-world conflicts.

interoperability issues largely at the operational level with additional focus on strategic and tactical issues. Although 22 nations are currently participating in the CWID programme, the largest players other than the US, are the UK, Canada, and Australia.<sup>72</sup>

Other initiatives have been sponsored by JFCOM to tackle emerging concepts such as EBO and NCW. The US has been prudent to include Canada, Australia and the UK (coined the “4-eyes nations”), to ensure that adjustments to doctrine, procedures and techniques are “coalition friendly.” The US continues to invite Canada as a “4-eyes nation” to participate in “coalitions procurement” of emerging equipment, networks, and systems. This not only provides a cost-sharing environment, to include potential defence contract spin-offs, but ensures interoperability from the get-go, vice Canada footing the entire research and development bill, and risking another “unique Canadian solution” as has been done in the past.<sup>73</sup>

Lastly, the US continues to encourage CF liaison staff deployment to all of their unified commands, headquarters, training facilities, staff colleges, equipment procurement projects, and to participate in synthetic environment experimentation to tackle interoperability issues, both technical and operationally. The CF must deem this

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<sup>72</sup>Canada actually exceeded the UK in level of participation in 2004 and may do so again in 2005, as there has been exponential interest created in this programme to tackle interoperability issues, largely procedurally and doctrinally, between Canada and the US for domestic operations including US FEMA and PSEP-C participation with the CF and US military.

<sup>73</sup>Whilst it is fully understood that Canadian business will be the government’s priority for any defence contracts, it remains irresponsible not to accept a US invitation to jointly developing capabilities. An “upfront” commitment is often not required by the US for CF liaison and procurement staff for early R&D meetings – the capability must be the focus, not the platform at this stage. Canada must take full advantage of the US defence industry which often welcomes the CF with open arms. This is not to say that Canada must sign up to the US’s Joint Strike Fighter jet project, or the “Stryker” direct fire armoured vehicle, or buy US C-17 aircraft for strategic airlift. It is merely suggesting that strategic decisions should be considered in consultation with our closest ally and potential impacts on interoperability be thoroughly studied before making decisions. Joint ventures can often benefit Canadian industry as well, such as the Canadian built Light Armoured Vehicle (LAV) family, produced in London Ontario’s General Motors division.

“invitation” as essential, not optional, and ensure that high quality staff engage these positions and facilitate an interoperable CF-US environment.

In sum, for future operations the choice from a US perspective becomes either “go it alone,” or conduct operations with like-minded nations. If they choose the latter, they risk being forced to “dumb down” networks, capabilities, concepts, etc, if nations do not engage US initiatives and not commit to being interoperable – not only is this not the way to build a coalition, and command, control, and sustain a war, it will also add to potential “blue on blue” incidents.<sup>74</sup> As such, the US will likely be more cautious of inviting only serious candidates to participate in their initiatives – Canada needs to be engaged.

## CONCLUSION

***Only one thing in war is worse than having to fight it, and that is having to fight it without the United States as your ally.***  
***- Sir Winston Churchill, WWII<sup>75</sup>***

The concept of interoperability was born out of NATO’s will to tackle its incompatible logistics problem in the 1950s, but has since transformed into a concept which encompasses both a technical and operational dimension, spanning all levels of conflict, internationally and domestically.

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<sup>74</sup>Middlemiss and Stairs, “The Canadian Forces . . .,” 19-21. In this paper, there are several accounts of the US, both in Kosovo and recent operations in Afghanistan, “dumbing-down” the operation to accommodate coalition members without basic capabilities such as: no “Link 4 and 16” communications for fighter aircraft; and, no Common Operation Picture (COP) capability and Situational Awareness (SA) to interface with US operational HQs for one “joint battlespace picture” for planning and execution, and more importantly, avoidance of fratricide. As this can be perceived as putting both the US and its allies at unacceptable risk, it is likely that for future operations, the US will only participate in high-intensity fighting with nations that possess interoperable capabilities to avoid the problems experienced in Kosovo. Nations unable to interoperate will be relinquished to “lower profile missions” (humanitarian aid, rear area security, sustainment escorts, etc).

<sup>75</sup>Colonel Patrick J. Dullin, “Finding the Friction Points in Coalition Logistics,” *Army Logistician* 34, no. 2 (March-April 2002): 5. Taken from Sir Winston Churchill’s comments on having the US join the fight in WWII and seeing the leadership, capabilities, and resources that they brought to the conflict.



The events of 11 September 2001 and the emergence of US-led coalitions replacing NATO and UN forces have called for Western militaries to push towards US interoperability. Canada's unique relationship with the US puts her in a favourable position to readily engage US concepts, doctrine, procedures, and technology to enhance the CF's combat capability. What is lacking is a clear definition of what US interoperability means for the CF, and more importantly, clear issuance of strategic direction vis-à-vis an updated Defence White Paper, preferably with the CF-US interoperability guidance as written in *A Strategy for 2020* adopted as CF policy.

This paper does not attest that there will ever be complete uniformity of interoperability between the CF and the US at the strategic and operational levels – the spectrum is too large and there are national policies, procedures, and laws in place that would not permit 100% compliance on either side. However, maximum effort on Canada's part must be made with a view to being able to completely integrate into the US system when and where required – anything less risks irrelevancy for the CF and jeopardizes national security. Senior military leadership must be wary of nay-sayers who use politics to undermine the unique relationship that Canada shares with the US – one which should be nurtured to foster interoperability and benefit the CF. Canada must recognize her dependence on the US for its security, and ensure that the CF is interoperable with the US military – to do otherwise risks spiraling into irrelevancy.

***We [Canada's military] are not going to be out there as the handmaiden to of any country. We are going to exercise an independent foreign policy in those areas where we believe that we have a role and the ability to play where others don't.***

***- Prime Minister Paul Martin, on Military Review, 19 April 2005<sup>76</sup>***

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<sup>76</sup>Stephanie Rubec, "PM Reports On Military Review," *The Ottawa Sun*, 19 April 2005, 12.

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