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National
Défence

Défense
nationale

Canada



Cover

La bataille de la Châteauguay,
by an anonymous artist, 1880.
Credit : Château Ramezay –
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**FROM COMBAT
STRESS TO
OPERATIONAL STRESS:
THE CF's MENTAL
HEALTH LESSONS
FROM THE "DECADE
OF DARKNESS"**



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TO BATTLESPHERE**

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THE EARLY YEARS – A SHORT HISTORY OF CANADA'S DEFENCE ATTACHÉ PROGRAMME, 1945-1965



THE USE OF WEB CONFERENCING IN JOINT AND COMMAND STAFF PROGRAMME DISTANCE LEARNING



REVIEWING DEFENCE POLICY

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NOTE TO READERS

As a bilingual journal, readers should take note that where citations are translated from their original language, the abbreviation [TOQ] at the end of the note, which stands for "translation of original quote", indicates to the readers that the original citation can be found in the published version of the Journal in the other official language.

Well, yet another picturesque autumn is upon us here in southern Ontario, and as we continue to commemorate the bicentennial of the War of 1812, it occurs to yours truly that perhaps the red coats of the British could have been a rather effective camouflage tactic, as long as said troops were forming up against a grove of sugar maples in the fall...

Seriously, we continue to pay due homage to the War of 1812 in North America through articles and book reviews, but also through the image that graces our cover.

In late-October 1813, a composite force consisting of approximately 1630 French Canadian regulars, militia, and Mohawk warriors under Lieutenant Colonel Charles de Salaberry repulsed an American force of about 4000 attempting to invade Canada and end the war by capturing Montréal. The American plan called for a two-pronged assault; one advancing up the St. Lawrence River from Sackett's Harbour on Lake Ontario, and the other advancing north from Plattsburgh on Lake Champlain. De Salaberry, an experienced soldier who possessed excellent intelligence with respect to enemy strength and movements, established an obstacle-laden defensive position at a ravine where a creek joined the Chateaugay River. All his forces were raised in Lower Canada. The Canadian Fencibles were considered regulars (although only considered liable for service in North America), the Voltigeurs were 'volunteers, but considered regulars,' and the Select Embodied Militia contained some volunteers, but was largely comprised of men drafted by ballot for temporary service of one year. Fearlessly leading his vastly-outnumbered troops from the front, Charles de Salaberry decisively engaged the attacking Americans on 26 October, forcing them to retreat. The results of this battle, and another decisive victory by different defenders at Chrysler's Farm near Cornwall, persuaded the Americans to call off the invasion of Canada. Of note, legend has it that at Chateaugay, when an American officer rode forward to demand the surrender of the numerically-inferior Canadians, since he had failed to do so under a flag of truce, he was (supposedly) shot down by de Salaberry personally. One must observe the niceties ...

Taking the lead in the current issue, Professor Allan English of Queen's University reviews the lessons learned and the progress made in the Canadian Forces with respect to the care provided to veterans who experience mental health problems in today's military, compared to what transpired during the so-called 'Decade of Darkness' of the 1990s. However, Dr. English warns that today's economic challenges may generate a new 'Decade of Darkness' with respect to Operational Stress Injuries, and he recommends several steps, based upon past lessons learned, to be taken to avoid dealing with unnecessary future challenges.

USAF Colonel Brent Griffin recently completed a four year exchange tour on the Directing Staff of the Canadian Forces College in Toronto. Herein, he discusses the College's National Security Programme (NSP), a ten-month course of study designed to immerse "... senior officers, Government of

Canada executives, and select members of the private sector" in Whole of Government approaches to national defence, as well as the "broader playing field" of national security. While the author highlights the need for a course such as this, he also emphasizes the 'value added' of the graduate the programme returns to the system.

Next, Professor Peter Denton examines the battlespace concept, opines that it is dimensionally and functionally inadequate, and offers an alternative consideration, the concept of the 'battlesphere.' This concept, Denton maintains, in terms of identifying conflict parameters and effects, "... enables us to identify and understand the consequences of 21st Century warfare in all its dimensions – physical, social, cultural, environmental and physiological." He also relates the battlesphere to the ecosphere, "the dynamic relational sphere within which all organic/inorganic systems exist on earth," and the ethnosphere, "...the sum total of all thoughts and intuitions, myths, and beliefs, ideas and inspirations brought into being by the human imagination," as a three-sphere dynamic that becomes a better way to explain and manage the inevitable conflicts of this century.

He is followed by Doctor Robert Bunker, a political and behavioural scientist, who discusses Red Teaming as a discipline that is divided into two basic types, analytical and physical. He then offers why both types, when used "to identify, and then simulate 'suicide bomber threat scenarios,'" are a requirement for the force protection training of deploying Canadian military formations.

Leading off our Military History section, Colonel Christopher Kilford, currently the Canadian Defence Attaché in Turkey, provides a brief history of Canada's Defence Attaché Program from its inauguration in 1945, to include the first two decades following the end of the Second World War. In so doing, Kilford charts the *rationale for* and *utility of* this organization, from its first tentative steps, to its attainment of much firmer ground by 1965.

Then, in an exploration of the War of 1812 'from the other side of the fence,' Joseph Miller, a former US Army infantry officer and combat veteran of Iraq, explores the failure of General William Hull to command effectively during the early stages of the invasion of Upper Canada, specifically embodied in his surrender of Detroit to Sir Isaac Brock in 1812. Miller makes an interesting case that suggests Hull's behaviour, which had been highly heroic and laudable during the American Revolutionary War, may well have been attributable to Post Traumatic Stress Syndrome, a condition which has often been viewed as a paradigm of the 20th Century and beyond.

This time out, we have a diverse quartet of opinion pieces to pique the interest of our equally-diverse readership. Regular *Jane's Defence Weekly* correspondent Jim Dorschner explores the requirement to replace the Canadian Forces Fixed Wing Search and Rescue aircraft capability, formally declared in 2004. Jim argues that recent developments now present an opportunity to advance the domestic SAR requirement, and to concurrently add new and improved operational capabilities

EDITOR'S CORNER

by acquiring "... a focused mix of aircraft types." Next, Christine Vaskovics of the Canadian Forces College in Toronto explores the multiple benefits of web conferencing technology as a tool to "improve the delivery, and subsequently, the learning experience" of students enrolled in the various distance learning courses of the Joint Command and Staff Programme currently offered at the College. She is followed by communications practitioner and retired Canadian Forces Public Affairs Officer Tim Dunne, who briefly catalogues Canada's highly significant contributions to the North Atlantic Treaty Organization since NATO's inception, but suggests that the nation needs to revise its modest and self-deprecating self-image of its contributions. Finally, reservist Dan Doran addresses what he believes are some serious shortcomings with respect to Primary Reserve non-commissioned member (NCM) training in the Canadian Army.

In our Commentary column, our own Martin Shadwick tackles the multi-faceted and complex requirement of reviewing Canada's current and future defence policy. We then close with an extensive selection of book reviews, as well as a rare (although not precedent-setting) book review essay of one work by two separate reviewers of a publication considered to be of particular relevance to the Canadian Forces.

Until the next time.

David L. Bashow
Editor-in-Chief
Canadian Military Journal



DND photo IS2012-0019 by Lieutenant Trevor Reid.

Master Corporal Anthony Vail, a Search and Rescue Technician from 442 Transport and Rescue Squadron, 19 Wing Comox, observes a *Cormorant* helicopter approach a confined landing site during an exercise outside Victoria, British Columbia, 27 May 2012.

VALOUR



Sergeant Ronald Duchesne, Rideau Hall Office of the Secretary to the Governor General (2012)

Group shot of recipients at the 22 June 2012 presentation ceremony, Rideau Hall.

Canada's three military valour decorations, namely, the Victoria Cross, the Star of Military Valour, and the Medal of Military Valour, were created by Her Majesty Queen Elizabeth II, Queen of Canada, on 1 January 1993. All the decorations may be awarded posthumously.

The **Victoria Cross** is awarded for the most conspicuous bravery, a daring or pre-eminent act of valour or self-sacrifice, or extreme devotion to duty in the presence of the enemy.

The **Star of Military Valour** is awarded for distinguished or valiant service in the presence of the enemy.

The **Medal of Military Valour** is awarded for an act of valour or devotion to duty in the presence of the enemy.

Additionally, the **Mention in Dispatches** was created to recognize members of the Canadian Forces on active service and other individuals working with or in conjunction with the Canadian Forces for valiant conduct, devotion to duty, or other distinguished service. Recipients are entitled to wear a bronze oak leaf on the appropriate campaign or service medal ribbon. Like the military valour decorations, the Mention in Dispatches may be awarded posthumously.

On 22 June 2012, His Excellency the Right Honourable David Johnston, Governor General and Commander-in-Chief of Canada, presented 6 **Military Valour Decorations** and 38 **Meritorious Service Decorations** to members of Canadian and allied forces. The Governor General said, in part:

"We honour today your bravery in the field, your actions which directly enhanced the safety of your comrades-in-arms. Yet, I would be remiss if I did not also honour how you have defended the ideals that we hold dear and how you helped to promote peace, sometimes by the strength – by the virtue – of your character alone. Congratulations to all of you and thank you for your continued service."

MILITARY VALOUR DECORATIONS

Medal of Military Valour

Corporal Brian Bélanger, MMV ~ Montréal, Quebec
Captain Ashley Collette, MMV ~ Yarmouth, Nova Scotia
Specialist David Fletcher Graves, MMV (US Army) ~ Wolfe City, Texas
Staff Sergeant Adam Herver, MMV (US Army) ~ Peabody, Massachusetts
Corporal Eric Monnin, MMV ~ Cornwall, Ontario
Master Corporal Charles St-Pierre, MMV ~ Saint-Quentin, New Brunswick

CITATIONS

Corporal Brian Bélanger, MMV
Montréal, Quebec
Medal of Military Valour

On April 13, 2011, Corporal Bélanger's joint Canadian-Afghan patrol was ambushed in the Panjwayi district, resulting

VALOUR

in an Afghan soldier being wounded. Exposing himself to enemy fire, Corporal Bélanger, the patrol's medical technician, resolutely made his way to the wounded soldier and dragged him to cover. As bullets continued to ricochet around them, he administered first aid. Because of his professionalism and dedication, Corporal Bélanger saved the life of a fellow soldier.

Captain Ashley Collette, MMV
Yarmouth, Nova Scotia
Medal of Military Valour

As a platoon commander from May to December 2010, Captain Collette demonstrated front line leadership that was critical to her soldiers' success during intense combat in Afghanistan. Stationed in volatile Nakhonay, her platoon regularly faced the threat posed by improvised explosive devices, all while repelling numerous attacks on their base. Despite suffering casualties within the group, she kept her soldiers focused and battle-ready; her desire to succeed never wavered. Captain Collette's fortitude under fire and performance in combat were critical to defeating the enemy and disrupting all insurgent attempts to reoccupy this key village.

Specialist David Fletcher Graves,
MMV (United States Army)
Wolfe City, Texas, USA
Staff Sergeant Adam Hever, MMV (United States Army)
Peabody, Massachusetts, USA
Medal of Military Valour

On August 3, 2010, Specialist Graves and Staff Sergeant Hever, both of the 1st Squadron, 71st Cavalry Regiment of the United States Army, and part of the Canadian-led Task Force Kandahar, were conducting a training exercise within Kandahar Airfield when insurgents tried to force their way inside the compound. Unarmed and under fire, Specialist Graves and Staff Sergeant Hever secured weapons and moved to a posi-

tion of cover in order to engage the enemy. Despite intense enemy action, they maintained their position and delivered accurate return fire. Their courage, decisiveness and soldiering ability neutralized the attack and enabled friendly forces to find safety.

Specialist Graves will receive his insignia at a later date

Corporal Eric Monnin, MMV
Cornwall, Ontario
Medal of Military Valour

On July 9, 2010, two of Corporal Monnin's fellow soldiers were wounded during a combat operation in Afghanistan. Under increasing enemy fire, he requested permission to move forward and then sprinted across the exposed terrain to reach their position. As bullets continued to fly, he rendered first aid, assisted with the wounded soldiers' extraction, and rejoined his platoon for the remainder of the engagement. Whether rendering first aid under fire or engaging the enemy, Corporal Monnin saved the lives of his comrades through his courageous and selfless actions.

Master Corporal Charles St-Pierre, MMV
Saint-Quentin, New Brunswick
Medal of Military Valour

From July 30 to August 2, 2010, Master Corporal St-Pierre displayed courage and composure while providing fire support coordination during a four-day combat operation in the Arghandab Valley of Kandahar, Afghanistan. Constantly under fire, he willingly and repeatedly exposed himself to attacks while identifying enemy positions and directing fire upon them. Despite being struck in the helmet by an enemy bullet, he never wavered from his responsibilities. Master Corporal St-Pierre's courage and soldiering ability were critical to the success of the operation.



Victoria Cross



Star of Military Valour



Medal of Military Valour

LETTERS TO THE EDITOR



The statue *Veritas*, by Walter S. Allward



The statue *Justitia*, by Walter S. Allward

Philippe Landreville, photographer, © Supreme Court of Canada Collection

Philippe Landreville, photographer, © Supreme Court of Canada Collection

Michael Gibson
Colonel
Deputy Judge Advocate General Military Justice
President of the Canadian National Group ISMLLW

I seek the support of the *Canadian Military Journal* in publicizing the creation of a Canadian National Group of the International Society for Military Law and the Law of War (ISMLLW), and to share some information with your readers regarding this organization. The ISMLLW is an International Non-Profit Organization governed by Belgian Law, originally created in 1956. The official languages of the ISMLLW are English and French.

The objectives of the ISMLLW are: the study of legal issues related to security and defence affairs, from an international law and comparative law perspective; the promotion and dissemination of knowledge of the law related to security and defence affairs, including international humanitarian law, military law, and the principles of human rights; and research into harmonization of internal systems of law in these respects.

The ISMLLW holds Congresses every three years at different locations around the world, and also holds issue-specific meetings in various countries on a more frequent basis. For example, the most recent Congress was held in Québec City in May 2012, and topic-specific meetings were held in 2011 in Rhodes, Greece, and in Beijing.

The internet website of the ISMLLW may be found at: http://home.scarlet.be/~ismllw/index_UK.htm.

The ISMLLW has over 700 members, among whom are university professors, military or civil magistrates, high state officials, lawyers, and general and field grade officers from over 50 countries. In 1997, the Society was granted consultative status by the United Nations.

Moreover, the ISMLLW is a liaison organization for 22 National Groups, each with a distinct status, that work for the same objectives pursued by the ISMLLW, and which organize their own activities on the national level.

Persons may be admitted to membership of the ISMLLW either individually, or by acceptance into a recognized National Group. The National Group is responsible for collecting annual membership dues, and for forwarding them to the ISMLLW in Brussels.

The advantage of joining a National Group is that it permits a greater focus and concentration of efforts to be made by individuals within each country at the national level, while also allowing those individuals to participate fully in the activities of the ISMLLW at the international level.

Recently, at the 19th Congress of the ISMLLW held at Québec City, the formation of a Canadian National Group was authorized by the ISMLLW Board of Directors, and I was designated as the President of the Canadian National Group. At the same meeting, the Judge Advocate General, Brigadier-General Blaise Cathcart, was elected as a Vice-President of the ISMLLW itself.

LETTERS TO THE EDITOR

The creation of a Canadian National group presents an exciting opportunity to expand and improve upon the study of military law in Canada, with particular emphasis on military justice, international humanitarian law, international human rights law, and procurement law. Membership in the Canadian National Group is open to all interested individuals, military and civilian, of any academic background or profession.

The Canadian National Group will be a bilingual organization, and its activities will be conducted on a bilingual basis.

We are seeking to create a website for the Canadian National Group in the near future in order to provide information and to promote its activities. In addition to an annual meeting, possible options envisaged for Canadian National Group activities currently include:

- A military law blog on the website
- A Newsletter
- To co-organize conferences with:
 - The CBA National Military Law Section
 - University Law faculties
 - The Canadian Council for International Law
 - The Office of the Judge Advocate General

- The US National Group of the ISMLLW

We have already had discussions with the Canadian Bar Association about the possibility of co-hosting an event next year on the topic of Child Soldiers.

The Annual Membership fee for the Canadian National Group will be \$50. Most of this will be remitted to the ISMLLW in Brussels to maintain the membership of all the members of the Canadian National Group in the ISMLLW, as required by the Statute of the ISMLLW, and the balance will be used to fund National Group activities.

Persons interested in joining the Canadian National Group of the ISMLLW are invited to send an email to: CanNatlGroupISMLLW@gmail.com.

Suggestions for future activities for the Canadian National Group are also welcome at the same email address.

We look forward to creating a vibrant Canadian National Group of the ISMLLW and to the exciting opportunities that it presents.

Please do not hesitate to contact me should you wish to receive further information about the Canadian National Group.

D.R. (Derek) Spencer
Major
Chief of Operations and Training
Directorate of Geospatial Intelligence
Canadian Forces

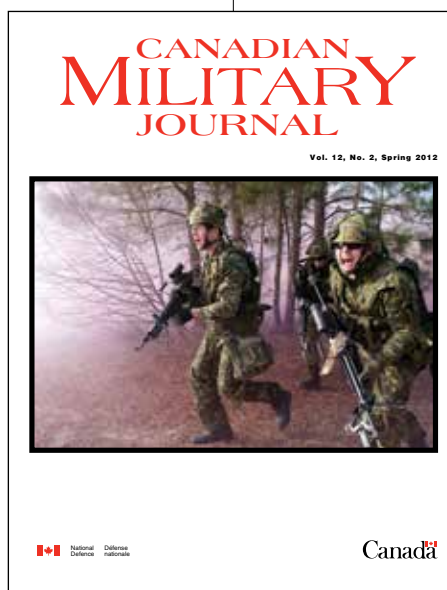
I read with great interest the article in the Volume 12 No 2 edition entitled *The Comprehensive Approach: Establishing a NATO Governance Support Team*, by Lieutenant-Colonel Paul Cooper. It is excellent to see the intellectual development of the Comprehensive Approach as we, the Canadian Forces, grow beyond the more limited 'Whole of Government' view, and look to how we can be integrated with the larger community during expeditionary operations. Lieutenant-Colonel Cooper's proposal is an excellent step forward from the great work done by the Strategic Advisory Team in Afghanistan, and is consistent with NATO's Comprehensive Approach to Operations.

However, I would like to propose that the term 'GST' is quite misleading,

as the term is well established within Canadian Military doctrine. While not considered NATO terminology, the term 'GST' has referred to a 'Geomatics Support Team' as an enabling element providing geospatial expertise and products to joint operations since prior to 1999. Geomatics Support Teams are well-described in "Military Engineer Support to Operations (B-GG-005-004/AF-015)," and have been employed on Operations in Bosnia, Ethiopia, and Afghanistan, as well as at the 2010 Vancouver Olympics, in the Canadian Arctic, and in response to many Red River floods. A quick review of Termimum: <http://www.termiumplus.gc.ca/site/termium.php?lang=eng&cont=001>, or the Defence Terminology Bank <http://terminology.mil.ca/term-eng.asp>, will reveal the same results.

The concept that Lieutenant-Colonel Cooper describes is excellent, and it should be promoted both doctrinally and as a CF capability for operations.

However, use of another term would be less counter to Canadian doctrine and operational practice.



DND photo AR2006-P005-0011 by Sergeant Lou Penney



FROM COMBAT STRESS TO OPERATIONAL STRESS: THE CF'S MENTAL HEALTH LESSONS FROM THE "DECADE OF DARKNESS"¹

by Allan English

Introduction

Today, the care provided for members of the Canadian Forces (CF) and veterans who experience mental health problems as a result of military service is arguably as good as it has ever been in our history. This enviable situation came about because of many improvements to the ways the Department of National Defence (DND) and Veterans Affairs Canada (VAC) treat those with mental health problems, based upon lessons learned from the 'Decade of Darkness' – a time in the 1990s when the CF's reputation in this area was at a historic low.² The publication in 2000 of the findings of the Croatia Board of Inquiry (Croatia BOI) was the catalyst for many of these changes. It drew public attention to the shameful way Canada treated its wounded service personnel, suffering from both physical and mental wounds, in economically challenging times. Together, these changes resulted in a paradigm shift in how those suffering from mental health-related problems were dealt with by DND and VAC.³ The adoption by the CF of the term "Operational Stress Injury" (OSI), to encompass a wide range of mental health issues, and to reduce the stigma associated with mental illness, was symbolic of this paradigm shift, and it represents the progress made in addressing these issues.⁴

However, the CF and veterans may be facing a new decade of darkness, as ominous economic circumstances and declining government support for the military have already reduced funding to all government programs, but especially defence - the government's largest discretionary expenditure.⁵ This is to be expected, given the cyclical nature of public support for defence spending in Canada and that fact that, "Defence policy will receive, except in emergencies, what funds that are available and not funds white papers and rational strategies and commitments demand..."⁶ These cuts have already affected both serving members' and veterans' health programs.⁷ Furthermore, these cuts only address the current deficit in government spending, and it is widely recognized that, in the face of future efforts to reduce the national debt, current long-range defence spending plans are "unaffordable."⁸

Yet, while budgets decline, the incidence of OSIs among veterans receiving disability benefits from VAC has been increasing steadily since the late-1990s. A 2011 Parliamentary report noted that "... three quarters of the veterans taking part

Professor Allan English, CD, PhD, a former Canadian Air Force navigator, teaches Canadian Military History at Queen's University, Kingston, Ontario, and he is a member of the College of Peer Reviewers of the Canadian Institute for Military and Veteran Health Research.

in VAC rehabilitation programs following their release for medical reasons are suffering from mental health problems,” and over the next five years, it is expected that “... at least 6,500 (26%) of these new veterans will suffer from the consequences of an operational stress injury” and “... at least 2,750 (11%) will suffer from a severe form of PTSD.”⁹

Therefore, to ensure proper long-term support for members of the CF and veterans, we must consider mental health issues in the wider context of having adequate resources to provide proper care in the future. This article will argue that considering these issues in an integrated and systemic fashion is critical to ensuring that the progress made in standards of care is maintained. It uses lessons from the past, especially those from the Decade of Darkness, to see how they might guide decision makers now and in the future in formulating policies related to military and veterans’ mental health.

Perceptions of Mental Illness

The policy responses to the changing challenges of dealing with military stress casualties often appear in cycles with a number of phases. If we understand where we are in each cyclical process, we have a better chance of dealing with the different challenges that we find in each phase. Before describing these cycles, it is important to understand that the course of each cycle is affected by diverse perceptions of mental illness, which are influenced by factors such as: 1) explanations for causes of sufferers’ symptoms; 2) national culture; and 3) the economic situation.

Explanations for the causes of illness have varied over time, and are, in part, cultural issues, since various societies at different times in their history have had many explanations for the causes of sickness, for example, organisms like bacteria, bad luck, divine retribution for misconduct, carelessness, and character flaws. Not surprisingly, whenever injury and illness among military personnel are perceived as being due to personal failings of any kind, support for military and veterans’ health care decreases.¹⁰ This is particularly true of psychological disorders like OSIs, which, even today, are often attributed to personal weakness or “lack of moral fibre.”¹¹

Under the heading of national culture, three factors can be highlighted: perceptions of the military in a society, perceptions of the conflict in which injuries occurred, and perceptions of how military personnel and veterans are being treated in relation to others in society. Extremes of perceptions of the military in a society can be illustrated by these contrasting views held by two prominent Canadian politicians, Sir John A. MacDonald (Canada’s first prime minister) and W.F. Nickle (Kingston’s Member of Parliament 1911-1919), respectively:

- ...‘regulars’ are useful only for hunting, drinking and chasing women...they are soldiers because they are no good at anything else.¹²
- ...this war has clearly demonstrated ...that the hero is to be found under practically every jacket...¹³

It does not take a great amount of imagination to deduce how each man might differ in his views on the allocation of resources to military and veterans’ health care.

Resource allocation is also related to society’s perception of the conflict in which military injuries occurred. For example, Canadians today are much more sympathetic to compensating military personnel injured in operations in Afghanistan than they were to compensating those who were disabled as a result of service in Somalia or in the Former Yugoslavia in the 1990s.¹⁴ However, perceptions of any given conflict can change over time as new interpretations of conflicts appear, or as the demographics of a society change.¹⁵

Lastly, perceptions of how military personnel and veterans are being treated in relation to others in society have also been an important factor in determining levels of public and government support for them. For example, between the First and Second World Wars, the annual cost of veterans’ programs and pensions was the second-largest government expense, next to servicing the national debt. Furthermore, by 1939, in trying economic times, those outwardly uninjured veterans pensioned in Canada for “shellshock” represented 50 percent of the more than 70,000 veterans receiving pensions, causing many to think that veterans’ pensions were too generous.¹⁶

In difficult economic times, comparisons will always be drawn between health care resources allocated to injured veterans and similar resources available to civilians, and the factors just discussed will influence how Canadians judge any discrepancies.



DND photo KAZ005-R105-0013 by Corporal Dan Shouinard

Dealing with OSIs

I will now examine two models that can help to explain how Canadians perceive, and, therefore judge the funding of programs for those with OSIs. They are the *response cycle model* (awareness of and handling of stress casualties) and the *systems cycle model* (how stress casualties are handled from an organizational systems perspective). I characterize these models as cyclical because, over time, the phases of each cycle tend to repeat themselves, as we shall see.

Response Cycle Model. The first cycle is one way of describing how organizations respond to mental health problems in military personnel. This cycle has four phases: 1) “blissful ignorance,” 2) awareness of the severity of the problem, 3) debate over how to handle the problem, and 4) implementing standardized procedures for dealing with the problem.

The first phase, which I call “blissful ignorance,” is a period where there is no real awareness of the unique challenges of dealing with mental health problems in military personnel, and civilian models of diagnosis and treatment are the norm. Early during the First World War (1914-1915), those who could not cope with the mental strain of combat in the British and Canadian armies were often diagnosed as suffering from “hysteria,” a disease believed to occur most often in young women, and thought to be caused by a lack of will-power, laziness, or moral depravity. Casualties were treated as they would have been in a civilian clinical setting. They were evacuated to Britain, where, given “rest and sympathy,” and, while symptoms disappeared in some, most ended up institutionalized, and then became chronic cases.¹⁷

A similar situation occurred in the period 1990-1995 as most militaries, including the CF, believed that the only ‘legitimate’ stress casualties were those whose condition could be directly attributed to conventional combat. This was reflected in the terminology in use at the time to describe stress casualties, which was “combat stress reaction” (CSR).¹⁸ In the 1990s, it was assumed that there was a clear distinction between *combat* and *non-combat* missions, and all CF operations at the time were considered to be non-combat, what the US military dismissively referred to as Military Operations Other Than War (MOOTW - pronounced “moot-wah”). When senior military leaders, like the Chairman of the US Joint Chiefs of Staff, declared, “Real men don’t do moot-wah,” the status of these operations was made clear to all.¹⁹ Consequently, many believed that the nation had little or no responsibility for those injured on “non-combat” opera-

tions. This led to situations where even those who had suffered severe physical injuries received little official support. For example, Canadian Major Bruce Henwood, who lost both his legs below the knee as a result of his vehicle striking a mine in Croatia in 1995, was initially denied adequate compensation because his injuries were sustained on what was believed to be a benign peacekeeping mission.²⁰

Another outcome of the assumption that the CF was not engaged in combat meant that there was little support for research on mental health issues related to CF operations. The resulting state of “blissful ignorance” was articulated by a Senate report on OSIs in the Decade of Darkness: “People conclude that since there is no data, it is questionable that PTSD exists.”²¹ Today, the CF acknowledges that OSIs can result from many types of military missions, from ‘peacekeeping’ and ‘peacemaking’ operations, such as those in the former Yugoslavia, Somalia, and Rwanda, to domestic operations, like Operation *Persistence* (Swissair 111body recovery).²² Nevertheless, debate over the meaning of OSI appears to be ongoing as a clear definition, found on the Chief of Military Personnel website (and other CF websites) as late as September 2011, has now been removed. This leaves a number of different possible definitions available on the internet.²³

The second phase of the cycle, awareness of the severity of the problem, normally occurs after some event draws public attention to the military stress casualties in a dramatic way. In the First World War, this phase began after the first Battle of the Somme in July 1916, when “several thousand soldiers” were withdrawn from battle due to “nervous” disorders, and most were permanently lost to the military because the civilian models of treatment that were used at the time proved largely ineffective in a military context.²⁴



Wounded Canadian soldiers en route to a dressing station via light railway, September 1916. The strain of combat is telling.

W.I. Castle/Canada. DND/Library and Archives Canada/PA-000912



CFIJC PL-15626

Dinner being served to Canadian fighter pilots in the Middle East after a hard and trying day, 21 February 1943. Again, the fatigue is self-evident.

V), which spells out accepted definitions and treatments for mental illness.²⁸ While attentive to the debates in the civilian sphere, armed forces have sometimes eschewed civilian standards of treatment and created their own systems of dealing with those suffering from OSIs, based upon military needs and practices within the profession of arms, of which health care providers in uniform are members, according to Canadian doctrine.²⁹ If consensus about dealing with military stress casualties is reached, the final phase in the cycle may be achieved.

This fourth phase, implementing standardized procedures, is an ideal that is not always reached. It implies that within a military force there is an accepted process, both medical and administrative, for dealing with OSIs. For example, despite the inability of the medical community to reach consensus

Real awareness of the severity of the problem in the Decade of Darkness era began in 2000 when the Croatia BOI reported that those who participated in the deployments under investigation suffered from certain stress-related illnesses at rates at least three times higher than those found in the Canadian population.²⁵ With public attention drawn to this issue, as well as the issue of the deplorable treatment of injured CF members, the stage was set for the next phase of the cycle.

A widespread debate over how to handle the problem often occurs once decision makers acknowledge that something must be done. In the First World War, debate in British Commonwealth forces over how to deal with stress casualties started in earnest in 1917, although concerns with respect to treatments used had been voiced early in the war, when "... the idea that the *British* soldier or 'hero' could not possibly show 'mental' symptoms" was raised [emphasis in original].²⁶ The medical community then engaged in a lively debate over the merits of various treatment regimes in competition for attention and resources. This situation was not resolved satisfactorily, and the lack of consensus among medical personnel and policy makers was reflected by official use of the term "Not Yet Diagnosed - Nervous" (NYDN) among Commonwealth forces from about 1917 until, at least, the middle of the Second World War.²⁷

There is a similar, and ongoing, debate over the best ways to deal with OSIs. This debate reflects discussions in the civilian sphere about what should be included in the latest edition of the 'bible' of mental health (now in draft form – the Diagnostic and Statistical Manual of Mental Disorders (DSM)

about diagnosis and treatment of stress injuries during the First World War, British and Canadian military medical authorities implemented a simple but effective forward treatment method for dealing with soldiers exhibiting signs of "shell shock." This system represented agreement on the immediate treatment of stress casualties, even if the nomenclature and causes of psychological disorders among military personnel were still a matter of debate.³⁰ Despite the existence of a relatively coherent and co-ordinated framework for dealing with stress casualties in the Canadian Expeditionary Force in 1918, by the time of the Decade of Darkness, much of this acquired knowledge had been forgotten.



Exhausted Canadian infantry near Nijmegen, Holland, late in the war, by Alex Colville.

CWM 19710261-2079 Beaverbrook Collection of War Art Canadian War Museum

It was only after a public outcry about the treatment of wounded soldiers and veterans, particularly those suffering from OSIs, during the Decade of Darkness that the CF began to rediscover many of the lessons of 1918, which led to the current CF system for dealing with OSIs.³¹ While neither the 1918 system nor the current CF system could be characterized as perfect, they *were* and *are* a great improvement upon the chaos that had reigned in dealing with OSIs prior to their implementation. However, in order to devise effective responses to mental health problems in military personnel, policies must be based upon an integrated personnel sustainment system.

“It was only after a public outcry about the treatment of wounded soldiers and veterans, particularly those suffering from OSIs during the Decade of Darkness, that the CF began to rediscover many of the lessons of 1918...”

public financial support. Therefore, as a government department, it behooves DND to take a holistic approach to these issues to ensure that even if someone cannot remain in the CF, they will be able to contribute to society after leaving the military.

To illustrate the personnel sustainment cycle from an OSI perspective, examples primarily from the Royal Canadian Air Force’s (RCAF) handling of “flying stress” casualties during the Second World War, and the CF’s handling of OSIs in the past 20 years will be used. There are generally three approaches that we find to address OSIs from this perspective – disciplinary, medical, and systemic. The first two represent the ‘stovepipe,’ or uncoordinated approach.

Personnel Sustainment Systems Cycle Model

In 2002, it was estimated that the cost of recruiting, selecting, training, and preparing a single CF infantry soldier for operations was \$315,000.³² This gives an idea of the magnitude of the financial cost of preventable personnel losses, not to mention the future costs to society of caring for veterans and their families if they cannot lead fully productive lives following military service. The personnel sustainment cycle model (see Figure 1) is one way of seeing this issue from an organizational systems perspective, encompassing the creation (selection and training), employment, conservation, and recycling (re-employment) of military forces.

Organizations typically see OSIs first as a disciplinary problem where certain individuals are singled out for punishment or released from the military, for example in the Second World War demoting or sending to punishment barracks Commonwealth NCO aircrew, and releasing officer aircrew deemed to have a “lack of moral fibre.”³⁴ During the 1990s, those with stress-related illnesses were often released from the CF, based upon a belief that their behaviour was the result of a character defect. Others were punished, either formally or informally.³⁵ However, the disciplinary approach leads to avoidable losses in the personnel sustainment cycle, as conservation and re-employment of personnel is not a priority during this phase.

When the disciplinary approach fails to reduce the number of stress casualties, organizations often assume next that this is purely a medical issue to be dealt with principally by health care professionals. The medical approach normally has some positive effects upon individual health outcomes, but if medical treatment is not closely co-ordinated with all other phases of the personnel sustainment cycle, personnel losses often continue at unsustainable rates, with many being discharged who could be usefully employed in some capacity.³⁶

The last approach (if it is reached, and often, it is *not*) has stress casualties dealt with as part of a holistic personnel sustainment system. For example, the creation in 1944 of the RCAF Reselection Centre, with a Special Cases Committee to examine the files of all aircrew removed from flying duties for what was often referred to as “flying stress,” in combination with other administrative measures, led to a significant reduction in personnel losses due to mental health issues. Many of those previously discharged were gainfully employed, and this helped to mitigate a serious shortage of aircrew.³⁷

The key to the effectiveness of the systemic approach is that senior decision makers must maintain oversight over all aspects of the personnel system to ensure that the various parts of the system are working in harmony and not at cross purposes.



Figure 1 - Sustainment Cycle Model

In order to successfully optimize personnel sustainment, military organizations must address all parts of the sustainment cycle. Unfortunately, most militaries usually treat personnel issues as ‘stovepipes,’ and rarely use an integrated system to manage effectively all aspects of personnel sustainment, let alone OSIs.³³ And from a wider national perspective, if those released from the CF cannot lead productive lives in the civilian sector, they may require significant

Allan English and 17 Wing Publishing Winnipeg



main areas of inquiry – mental health issues among the troops.⁴⁰

This experience shows that all those involved in military personnel policy making must stay abreast of the latest findings in defining and dealing with mental illness. In so doing, they can avoid both the “blissful ignorance” and the “awareness of the severity of the problem” phases of the response cycle, thereby enabling them to move expeditiously to the “debate over how to handle the problem” and the “implementing standardized procedures for dealing with the problem” phases. But even if awareness and standardization are attained relatively quickly, the effectiveness of dealing with OSIs will be limited if they are not managed systematically.

Lessons from the Decade of Darkness

I see four key OSI-related lessons that emerge from the Decade of Darkness. These lessons are actually *old* lessons, but they had been largely forgotten by the end of the 20th Century. They are presented here in the hopes that we will not have to learn them again as the CF and VAC face the mental health challenges of the post-Afghanistan era.

Lesson #1- Establish Consensus Quickly. One of the most difficult challenges for armed forces is to reach an internal consensus with respect to how to define and deal with OSIs. For over 300 years, similar symptoms have been observed in those military personnel with mental health problems, but they have been interpreted differently.³⁸ Studies in the field of cross cultural mental health have become increasingly influential in shaping our understanding of this phenomenon. Some pertinent findings are that: all mental illnesses are influenced by cultural beliefs and expectations; the expectations and beliefs of sufferers shape their symptoms; the expectations and beliefs of clinicians shape their diagnoses; and national and group cultures feature prominently in how a society defines ‘abnormal’ behaviour. These factors have a direct impact upon shaping responses to mental illnesses, which affects the outcomes for the sufferers.³⁹

During the 1990s, we were in a “blissful ignorance” phase regarding OSIs. It was believed that behavioural disorders in military personnel had physical causes because, in the absence of traditional combat missions, the symptoms clearly could not be a “combat stress reaction.” Therefore, when the Croatia BOI was convened, its explicit mandate was to discover the physical causes (expected to be environmental, like contaminated soil) that were presumed to be the source of the troops’ illnesses. However, by the fall of 1999, scientists had told the Board that there were no discernible physical causes for the illness. The Chair of the Board then used an obscure paragraph in the BOI’s terms of reference, which allowed it to examine essentially anything that it might consider relevant, to shift the attention of the Board to what then became one of its

Lesson #2 - OSIs are a Systems Issue. Ensuring that OSIs, as a force health protection issue, are addressed systematically remains a challenge for policy makers.⁴¹ And dealing with OSIs dispassionately is perhaps an even greater challenge for them because of the cultural and social issues surrounding these injuries to the mind. Stigma remains a major barrier to dealing with OSIs *systemically* as a force sustainment issue. And yet, with the all progress made in treating diseases and injuries with physical causes, OSI casualties are potentially the greatest source of *loss*, and, therefore *savings*, in the personnel sustainment cycle.⁴² However, even if OSIs are recognized as a systems issue, success in dealing with them will be limited if commanders at all levels do not take responsibility for dealing with them.

Lesson #3 – Commanders are responsible for the health of their troops. In both conceptualizing and dealing with force health protection issues, including OSIs, Western militaries frequently see them as a medical matter, and, therefore, the domain of health care professionals in the medical ‘stove-pipe.’ This was true during both World Wars and during the Decade of Darkness. For example, the British 14th Army fighting in Burma in 1943 had high casualty rates because prescribed measures to prevent malaria were not being followed. The loss rates were only significantly reduced when its new commander, William Slim, held regimental officers directly responsible for ensuring that the prescribed prophylaxis routines were followed, and fired those in whose units malaria re-occurred, where it had previously been eradicated.⁴³ More recent examples of an absence of command responsibility resulting in outbreaks of diseases for which effective prophylaxis was available include Canadian soldiers in East Timor (2000) and Afghanistan (2003) and US Marines in Liberia (2003).⁴⁴ Related problems with leadership training shortcomings, command responsibility imbalance, and inadequate doctrine have also been identified as impediments to providing the CF with optimal health force protection.⁴⁵ Similarly, the issue of commanders’ responsibility for the mental health of their subordinates is a longstanding issue that has been raised

during and since the Decade of Darkness.⁴⁶ A recurring criticism is that CF leaders have not done enough to effect the culture change required to reduce the stigma associated with OSIs, which would, in turn, reduce OSI casualties.⁴⁷ These issues remind us that the concept of leaders' responsibility for their subordinates' health, an old axiom, requires constant reinforcement. This leads to the final lesson – how to ensure that relevant knowledge is reliably transmitted to successive generations of military professionals.

Lesson #4 – Lessons Must be Constantly Learned AND Taught. Perhaps the most important lesson to be learned from the Decade of Darkness is that unless we establish and maintain systems to distill and teach lessons from our past experience, the knowledge we have acquired so painfully in the past will be lost again - until necessity forces us to rediscover it, often at great cost to our troops.⁴⁸ The CF's current Surgeon-General put it this way: "...history teaches that we often do not learn from our past...Although low injury and disease rates are usually the fruit of persistent and prolonged health protection and promotion efforts, their achievement is often seen as justification to scale back such programs...as recent problems recede from memory, the cycle will predictably repeat itself."⁴⁹ And, transmitting "institutional memory" through effective CF-wide training and education programs to ensure that problems do not recede from our memory is the "... most effective way to reduce the stigma associated with operational stress injuries and tackle culture change."⁵⁰

However, what is often referred to as "institutional memory" is only as good as the training and professional education that each generation receives, and only effective institutional learning creates "institutional memory." However, one of the biggest challenges the CF faces is in creating an enduring institutional memory is the establishment of a cohesive knowledge creation and education system that imparts the necessary information about OSIs to the right people at the right time, especially when these systems are often one of the first targets of budget cuts.⁵¹

Conclusions

The 1990s are not just our past - they may be our immediate future as well. A 2011 statement by the Chief of the Defence Staff (CDS) closely parallels statements by defence policy makers during the Decade of Darkness: "In the challenging financial conditions faced by our country, our ability to accomplish...priorities rests on our willingness to find better ways to deliver defence capability, while achieving savings and reductions mandated by the government."⁵² With significant budget cuts either underway or forecast for all Western armed forces, the next ten years could easily be a new Decade of Darkness; therefore, the lessons from the 1990s have a particular relevance to us.⁵³ What follows are three steps, based upon past lessons, which might be used to deal with future challenges in dealing with OSIs.

The first step is to recognize the important effect of culture in its many forms (i.e., national, organizational, military, unit) on mental health issues. From an organizational response perspective, culture is assuming new prominence in discussions about mental health policy, and, while evidence-based studies are an important component in this process, knowing that culture affects what research is considered 'appropriate,' and how evidence is gathered and interpreted, gives us valuable insights into how culture shapes what society defines as and deals with 'abnormal' behaviour. From an organizational behaviour perspective, leaders at all levels play a part in shaping culture so that it supports organizational goals, because "...leaders are the ones who promote resiliency training, who create a supportive esprit within the unit, and who oversee the reintegration into the unit of those who have sought care."⁵⁴

The second step is to treat OSIs as a *systems* issue. If we understand that OSIs are part of a larger personnel sustainment system, this often-overlooked approach allows us to see them as an important factor in reducing preventable personnel losses. The 1990s showed us that debates about OSIs have often revolved around value judgments about who was 'entitled' to have symptoms, frequently based upon the cause of the stress, i.e., combat vs non-combat. However, from a systems or organizational perspective, it is essential to reduce losses due to OSIs no matter how they are caused – this becomes a practical issue about reducing wastage. Implicit in this approach is that the CF consider moving beyond the label 'operational' in OSI, as it did with 'combat' in CSR, and deal with all CF stress injuries as part of a holistic system, no matter what their origin.

The third step is for DND to create and sustain a viable 'institutional memory.' A key problem during the Decade of Darkness was a failure on the part of DND to collect, analyze, and transmit data about many important personnel sustainment issues, including OSIs, an



CFJIC LG2005-0121d, by Corporal Bill Gomm

The official opening of the Occupational Stress Injury Clinic in Winnipeg, 11 April 2005.

area where relatively small investments can make a big difference. In fact, some of the first targets of cuts in that era were to what were seen to be non-essential capabilities related to research, education, and training. Today, we see calls to reduce or eliminate some of these functions once again as part of the CF's most recent Transformation and cost-cutting efforts – in the name of “operational effectiveness.”⁵⁵ However, what is often forgotten amid these cries to keep ‘sharp end’ forces at the expense of other parts of the organization is that without proper knowledge of how to best use and conserve those forces, the sharp end can quickly lose its edge, due to unnecessary attrition. I am not arguing here that cuts are not necessary, only that cuts to the ‘brain’ of the organization (headquarters, staffs, and education and research capacity) need to be considered very carefully because strong limbs are not much use without intelligent direction.

These steps represent some new ways of doing things, without any need for additional financial resources. In fact, if imple-

mented, they could not only improve the way we treat those members of the CF and veterans suffering from mental illness, but they could also help to realize the CDS's mandate to deliver better capability while reducing costs.



Empathy

DND photo AR2011-0124-38 by Corporal Tina Gillies

NOTES

1. This article is based upon a presentation given at the Annual Gregg Centre - Combat Training Centre Fall Conference – “The Mind at War: Understanding, Preparing, and Treating Combat Stress,” 12-13 October 2011, University of New Brunswick, Fredericton, NB. My interest in this topic began when I wrote a study in December 1999 entitled, “Creating a System for Dealing with Operational Stress in the Canadian Forces,” for the Croatia Board of Inquiry.
2. The 1990s has been referred to as DND's ‘Decade of Darkness,’ because cuts to the CF during the defence retrenchment at the end of the Cold War were exacerbated by public perceptions of wrong doing in the Somalia mission, and by widespread distrust in the senior leadership of the CF. Veterans Affairs Canada - Canadian Forces Advisory Council, “The Origins and Evolution of Veterans Benefits in Canada, 1914-2004,” Reference Paper (March 2004), np, at <http://www.vac-acc.gc.ca/clients/sub.cfm?source=forces/nvc/reference>, accessed 18 December 2010; and G.E. Sharpe and Allan English, “The Decade of Darkness – The Experience of the Senior Leadership of the Canadian Forces in the 1990s,” paper written for the CF Leadership Institute, dated 24 February 2004. The expression ‘Decade of Darkness’ was popularized by General Rick Hillier when he was CDS, but it was actually coined by Lieutenant-General (retired) Al DeQuetteville in an interview in 2003 with Joe Sharpe.
3. G.E. (Joe) Sharpe, *Croatia Board of Inquiry: Leadership (and Other) Lessons Learned* (Winnipeg, MB: CF Training and Material Publishing Centre, 2002), pp. vii-viii.
4. An OSI can be defined as “... any persistent psychological difficulty resulting from operation-
- al duties performed by a member of the Canadian Forces and includes a host of problems such as anxiety, major depression, alcohol abuse and post traumatic stress disorder (PTSD).” In September 2011, this definition was on the Chief of Military Personnel website under “Operational Stress Injury Social Support (OSISS) Program.” It has since been removed. It can still be found, however, on the Air Force, Cold Lake, Deployment Support Centre website at http://www.airforce.forces.gc.ca/DSC/ColdLakeDSC/DIS/OSI_e.asp, accessed 28 May 2012.
5. David Pugliese, “Defence Department Bureaucrats Have Gone ‘Rogue’ Says Opposition, Auditor General Fights Back Against DND Claims,” in the *Ottawa Citizen*, 16 May 2012, at <http://blogs.ottawacitizen.com/2012/05/15/defence-department-bureaucrats-have-gone-rogue-says-opposition-auditor-general-fights-back-against-dnd-claims/>, accessed 16 May 2012; and Murray Brewster, “DND cuts account for one-fifth of federal budget cuts over next three years,” in the *Winnipeg Free Press*, 29 March 2012, at <http://www.winnipegfreepress.com/canada/dnd-cuts-account-for-one-fifth-of-federal-budget-cuts-over-next-three-years-144956585.html>, accessed 28 May 2012.
6. Allan English, “Not Written in Stone: Social Covenants and Resourcing Military and Veterans Health Care in Canada,” in Alice B. Aiken and Stephanie A.H. Belanger, (eds.), *Shaping the Future: Military and Veteran Health Research* (Kingston, ON: Canadian Defence Academy Press, 2011), pp. 230-238; Douglas Bland, “What next for the military? A false dichotomy,” in the *Globe and Mail*, 27 October 2010, at <http://www.theglobeandmail.com/news/opinions/opinion/what-next-for-the-military-a-false-dichotomy/article1773956/>, accessed 28 May 2012.
7. Murray Brewster, “DND brass on defensive over cuts to mental-health research,” in the *Globe and Mail*, 4 May 2012, at <http://www.theglobeandmail.com/news/politics/dnd-brass-on-defensive-over-cuts-to-mental-health-research/article2423336/email/>, accessed 6 May 2012.
8. Lee Berthiaume, “Government knew last year it couldn’t afford billions in defence spending: documents,” in *Postmedia News*, 4 June 2012, at http://www.canada.com/story_print.html?id=6728473&sponsor=, accessed 5 June 2012.
9. Jean-Rodrigue Paré, “Post-traumatic Stress Disorder and the Mental Health of Military Personnel and Veterans,” Background Paper Publication No. 2011-97-E (Ottawa: Library of Parliament, 14 October 2011), pp. 7-9.
10. See Allan English, “Leadership and Operational Stress in the Canadian Forces,” in the *Canadian Military Journal* Vol. 1, No. 3 (Autumn 2000), pp. 33-38 for a discussion of these issues.
11. Greg Jaffe, “New name for PTSD could mean less stigma,” in the *Washington Post*, 5 May 2012, at http://www.washingtonpost.com/world/national-security/new-name-for-ptsd-could-mean-less-stigma/2012/05/05/gIQAIV8M4T_story.html, accessed 6 May 2012. The stigma associated with mental illness remains a significant problem in dealing with mental illness in civilian society as well: “Bell creates world’s first chair in anti-stigma research at Queen’s,” in the *Queen’s University News Centre*, 7 February 2012 at <http://queensu.ca/news/articles/bell-creates-world-s-first-chair-anti-stigma-research-queen-s>, accessed 31 May 2012.

12. Allan English, *Understanding Military Culture: A Canadian Perspective* (Montreal & Kingston: McGill-Queen's University Press, 2004), p. 87.
13. Cited in James Wood, *Militia Myths: Ideas of the Canadian Soldier, 1896-1921* (Vancouver: UBC Press, 2010), p. 259.
14. Michael Valpy, "Canada's military: Invisible no more," in the *Globe and Mail*, 20 Nov 2009, at <http://www.theglobeandmail.com/news/politics/canadas-military-invisible-no-more/article1372117/>, accessed 20 December 2010.
15. English, *Understanding Military Culture*, pp. 111-114.
16. Desmond Morton, "Military Medicine and State Medicine: Historical Notes on the Canadian Army Medical Corps in the First World War 1914-1919," in David C. Naylor, (ed.), *Canadian Health Care and the State* (Montreal & Kingston: McGill-Queen's University Press, 1992), pp. 38-66; and Desmond Morton, *A Military History of Canada*, 3rd Ed., (Toronto: McClelland & Stewart, 1992), p. 167.
17. Chris Feudtner, "Minds the Dead Have Ravished: Shell Shock, History, and the Ecology of Disease Systems," in *History of Science*, Vol. 31 (December 1993), pp. 377-420.
18. At the time, two influential works on the subject were Shabtai Noy, "Combat Stress Reactions," in *Handbook of Military Psychology*, Reuven Gal and A. David Mangelsdorff, (eds.) (Chichester, UK: John Wiley, 1991), pp. 507-530; and Solomon Zahava, *Combat Stress Reaction: The Enduring Toll of War* (New York: Plenum Press, 1993).
19. Fred Kaplan, "The Post-9/11 Military," in *Slate*, 2 September 2011, at http://www.slate.com/articles/news_and_politics/war_stories/2011/09/the_post911_military.html, accessed 1 June 2012.
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21. Canada, The Standing Senate Committee on National Security and Defence, "Occupational [sic] Stress Injuries: The Need for Understanding," Fourteenth Report (Ottawa: Senate of Canada, 19 June 2003) at <http://www.parl.gc.ca/Content/SEN/Committee/372/vete/rep/rep14jun03-e.htm>, accessed 16 September 2011.
22. Don Richardson, et al., "Operational Stress Injury Social Support: A Canadian Innovation in Professional Peer Support," in the *Canadian Military Journal*, Vol. 9, No. 1 (nd [2008]), pp. 57-64, at <http://www.journal.dnd.ca/vo9/no1/09-richardson-eng.asp>, accessed 16 September 2011. See Note 4 above.
23. Robert H. Ahrenfeldt, *Psychiatry in the British Army in the Second World War* (New York: Columbia University Press, 1958), pp. 5-6, 8; Great Britain, "Report of the War Office Committee of Enquiry into 'Shell-Shock,'" Cmd 1734, (London: HMSO, 1922), p. 119n.
24. English, "Leadership and Operational Stress in the Canadian Forces," p. 34.
25. Ahrenfeldt, *Psychiatry in the British Army in the Second World War*, pp. 5-7.
26. Terry Copp and Mark Humphries, *Combat Stress in the 20th Century: The Commonwealth Perspective* (Kingston, ON: Canadian Defence Academy Press, 2010), pp. 14-15, 126n, 129.
27. Jaffe, "New name for PTSD could mean less stigma."
28. Canada, DND, *Duty with Honour: The Profession of Arms in Canada* (Kingston, ON: CF Leadership Institute, 2003), pp. 51-52. See Rakesh Jetly and Alexandra Heber, "Mental Health Care for Canadian Forces Members in Afghanistan," in Aiken and Belanger, eds., *Shaping the Future: Military and Veteran Health Research*, pp. 154-159 for a discussion of recent challenges faced by uniformed practitioners in adapting civilian best practices to a military setting.
29. Simple forward treatment protocols for OSIs today are based on the PIES (Proximity, Immediacy, Expectancy, and Simplicity) principles used in the First World War, Donna Miles, "Military Confronts Combat Stress at Front Lines," *American Forces Press Service*, 11 April 2005, at <http://www.defense.gov/news/article.aspx?id=31454>, accessed 1 June 2012. An early detailed account of these protocols, based on British, Canadian and French experience, can be found in Pearce Bailey, et al., *The Medical Department of the United States Army in the World War*, Vol. 10: *Neuropsychiatry* (Washington: US Government Printing Office, 1929), 271, 273, 277-81, 294-6, 306-7, 309, 311, 313. The creation of a consensus-based primary care management "algorithm" for "Concussion (mTBI) [minor Traumatic Brain Injury] in a Deployed Setting" by the CF in 2008 is a recent example of health care personnel agreeing on a protocol for the immediate assessment and treatment of potential stress casualties, despite considerable debate over the nature of mTBIs. Jetly and Heber, "Mental Health Care for Canadian Forces Members in Afghanistan," pp. 156-159.
30. Richardson, et al., "Operational Stress Injury Social Support, 57-58, 62-63.
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Officers Mess, Canadian Forces College.

EDUCATING THE NEW NATIONAL SECURITY PROFESSIONAL: A REVIEW OF THE NATIONAL SECURITY PROGRAMME AT THE CANADIAN FORCES COLLEGE

by Brent Griffin

Introduction

With the demise of the Soviet Union more than twenty years ago, the relatively clear lines dividing the superpowers began to fade, and as one pole of the post-war, bipolar world dissolved, national and cultural feelings previously contained by the force of Cold War political reality began to resurface. Exacerbated by increasing globalization, this rise flared into violence and increasing instability across the globe, as post-Cold War flashpoints began to seemingly or actually threaten national interests in established states. The Cold War world, defined by the stand-off between two armed contenders, devolved into a 'new normal' with a host of new concerns characterized by a variety of new terms – the 'Axis of Evil' and the 'Arc of Instability' to name but two.¹ This new environment shared none of the seemingly comprehensible qualities of the preceding half-century; on the contrary, it proved increasingly subject to ostensibly intractable problems that, on the surface, made nuclear chess look downright reasonable. At the very least, the protagonists during the Cold War shared a relatively common and understandable interest in survival, even if their ideologies

did not match. Given this changed reality, how does today's state deal with religious zealotry, racial antagonism, 'warlordism' and other movements which cascade through Westphalian state boundaries and threaten neighbouring political entities or even those half a world away? And in a similar vein, what impact can less dramatic phenomena like globalization, resource scarcity, and migration have on state security?

The answers to these questions and others like them are not readily apparent, and in some cases, they are conspicuously absent. In many cases, today's wisest minds have not even determined the proper questions to ask. In the two decades since the implosion of the Soviet Union, governments have begun to grasp both the enormity of the problems they face, and their interconnectedness. The organizational effort to cope with the real national and transnational issues of the day has begun, but the educational process is anything but com-

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plete. While ‘Whole of Government’ is a phrase understood by many both within the Canadian Forces (CF) and the broader Government of Canada (GOC), in so many ways, it is only a nebulous concept that suggests some level of coordination with other government departments and agencies, most often in the context of national defence or overseas peace building efforts. This is, perhaps, too limited a focus, based upon an arguably false analogy that equates national security with national defence. Perhaps whole-of-government policy and strategy should extend beyond the narrow confines of defence to the broader playing field of national security. The immersion of senior CF officers, GOC executives, and select members of the private sector in issues like those above is the focus of the National Security Programme (NSP), a ten-month course of study designed to help its participants grapple with the problems of the new normal, and to develop comprehensive methods for dealing with them.

The Environment

Not surprisingly, the 2008 *Canada First Defence Strategy* has characterized the new normal as volatile and unpredictable, stating: “Today we live in an uncertain world, and the security challenges facing Canada are real.”² But while the *Strategy* alludes to a broader definition of security than the ‘military-centric’ version generally espoused by those in uniform, it does not explicitly define the term. For that, one must look four years earlier to *Securing an Open Society: Canada’s National Security Policy*, a document which describes itself as “... the first-ever policy of its kind in Canada.”³ In its opening chapter, *Securing an Open Society* defines the scope of national security as follows:

National security deals with threats that have the potential to undermine the security of the state or society. These threats generally require a national response, as they are beyond the capacity of individuals, communities or provinces to address alone.⁴

This is not an entirely different sentiment than that attributed to one of America’s greatest diplomats, George Kennan. In a draft paper entitled *Comments on the General Trend of US Foreign Policy*, Kennan defined national security as, “... the continued ability of [a] country to pursue the development of its internal life without serious

interference, or threat of interference, from foreign powers.”⁵ These definitions are both deliberately and necessarily vague, in large part because the environment that they define is both ambiguous and complex, and the threats that they envision cannot be relegated to any given sphere – diplomatic, informational, military, economic, or cultural. In short, they describe an idea that is anything but clean, and suggest that the nature of policy to support it should be anything but linear or restricted to a single solution.

If one accepts the above definitions as realistic (if not concrete), one would likely also accept, as just inferred, that courses of action in addressing national security issues can include a variety of approaches – or perhaps even more accurately stated, a comprehensive approach involving multiple forms of national power. Although victory in the Cold War can hardly be attributed only to military might, the militaries of the West have had considerable difficulty in ‘jettisoning’ the Cold War paradigm of the garrison force and a purely military response, to issues related to national security. This certainly is not meant to imply that progress has not been made in this regard; on the contrary, the past decade has seen remarkable improvements in intra- and inter-governmental cooperation in domestic and international operations. But this cooperation has been two decades in the making, and it has largely been a result of trial and error. Teamwork has often been a result of ‘hard knocks’ delivered through years of hard work in Afghanistan, Iraq, and other hot spots around the globe. Many barriers have been broken, yet these barriers have been largely at the tactical and operational levels. To date, there has been very little in the way of a formal framework developed to link national policy with national strategy in a comprehensive, whole-of-government manner. On the inter-governmental front, while international organizations and laws exist to facilitate cooperation, many of today’s issues range from contentious to insoluble – despite the best of intentions and efforts to build ‘coalitions of the willing.’

Officer Development Periods				
DP1	DP2	DP3	DP4	DP5
NCdt/OCdt A/SLt/2Lt • Basic Military Officer Qualification (BMOQ) • Environmental training • Basic occupational training	Lt(N)/Capt • Intermediate Occupational & Environmental Quals • Officer Professional Military Education (OPEM) • Joint Staff Operations Programme (JSOP)	Cdr/LCcol LCdr/Maj • Advanced Occupational Quals (as required) • Joint Command and Staff Programme (JCSP) • Post Grad • Canadian Security Studies Programme (CSSP)	Capt(N)/Col • Develop Advanced Management & Institutional Leadership Ability • National Securities Programme (NSP) • Post Grad • Second Language Training (as required)	Flag/General Officers • Develop Executive Level Management & Institutional Leadership Ability • Executive Leader Programme (ELP) • Executive Development Programme (EDP) (4 modules - under development) • Second Language Training (as required)

CDACFPDS Officer Development Periods

The Gap

Where does this leave the Canadian Forces senior officer and the CF's developmental education continuum? The latter is perhaps the easier to answer, at least in the pre-developmental period (DP) four arenas. Represented at the Canadian Forces College (CFC) by the Joint Command and Staff Programme (JCSP), DP-3 focuses upon the operational level of war. The stated aim of the JCSP is "... to prepare selected senior officers of the Defence Team for command and/or staff appointments in a contemporary operating environment across the continuum of operations in national and international settings."⁶ As its aim implies, JCSP is the bridge between the tactical and the strategic. While it bleeds into both, it does so only to understand tactical limitations and strategic realities at the operational level. Given the DP-3 focus upon the operational level of war, it stands to reason that DP-4 should look *beyond* the operational towards the strategic. How has it met this expectation over time?

Prior to 2008, the CF relied upon two courses at CFC to meet the mandate of DP-4 education: the Advanced Military Studies Programme (AMSP), and the National Security Studies Programme (NSSP).⁷ Situated firmly in the nexus between the operational and strategic levels of war, the aim of the AMSP was "... to prepare selected Colonels/Captains(N) for operational level command and for senior staff appointments within operational level joint and combined headquarters."⁸ Its counterpart, the NSSP, sought "... to prepare general/flag officers, selected colonels/naval captains and civilian equivalents, for strategic responsibilities in the development, direction and management of national security and defence policy."⁹ In tandem, these two programmes carried professional military education delivered in earlier development periods to a broader, if somewhat military-centric, level of understanding regarding the strategic arena. Running sequentially over 15- and 25-week periods respectively, the AMSP and NSSP were mutually reinforcing programmes which together delivered DP-4 credit to a Canadian senior officer. More often than not, delivery was staggered over a multi-year period, allowing the officer to dedicate smaller chunks of time to education. The benefit of this dual-programme approach to learning was its flexibility. Its disadvantage was its military-centric nature – the foci of the strategic-level NSSP being strategic command and institutional leadership; defence resource management; Canadian national security and international relations; and power, military strategy, and readiness.

Student profiles on AMSP and NSSP reflected the martial nature of the two programmes. Reflecting its aim, AMSP counted only military officers amongst its participants, a portion of them internationals. NSSP, on the other hand, did incorporate 'civilian equiva-

lents' into its ranks, although not in very significant numbers.¹⁰ Moreover, each of these civilians came from the Department of National Defence (DND) – and nearly all from Defence Research and Development Canada. So, although these participants offered viewpoints substantively different from those in uniform, the parochial defence paradigm remained intact. In fact, although the aim of the NSSP was to prepare participants to manage "national security and defence policy," it arguably only did so directly in the military sphere. DP-4 through 2008, then, built effective defence professionals, but, given the broader definition of national security described in the preceding section, the claims of AMSP and NSSP to effective development of national security professionals was dubious, especially in the whole-of-government context. In the decades following the Cold War, and especially in the span of time following 9/11, expertise focused upon military solutions to national security issues was not enough.

The Fix

Despite their shortcomings, AMSP and NSSP did a commendable job in meeting the ongoing efforts by the CF to educate officers in "national policy and security problems; scientific, political, economic and military factors influencing Canada and other states; and Canada's place on the international scene."¹¹ More importantly, they served as springboards for development of an even more aggressive programme in this domain – the National Security Programme (NSP). Cognizant of some of the limitations inherent in the CF's contemporary approach to senior officer education, the Armed Forces Council (AFC) directed sweeping changes to DP-4 in 2008 through a programme designed to "... prepare all participants for employment as strategic-level leaders and managers, and military officers as operational-level joint task force commanders and senior staff."¹² Explicit in the AFC direction were two key points which clearly differentiated the NSP from its predecessors: its method of study, and its nominal roll.



Moon over the Mackenzie Building, Royal Military College of Canada.

Brad Lowe, Base Photo, CFB Kingston

The first was a rather important departure from previous practice in that the AFC mandate directed that NSP be conducted “along post-graduate study lines” with an optional Royal Military College of Canada (RMCC) Master of Arts degree as part of the package.¹³ This mandate necessarily changed the flavour of the NSP when viewed against its antecedents. First, while AMSP and NSSP were certainly robust from a curriculum perspective, they had significantly less emphasis – as measured by writing opportunities – on individual critical thought. Where written work in these programmes represented only 30 percent (about 200 hours) of total contact time with instructors, that in NSP exclusive of the Masters represents about 80 percent (approximately 470 hours). In a similar vein, instruction on the NSP is vastly different in methodology. AMSP and NSSP were delivered in the ‘traditional’ manner of most Professional Military Education (PME) facilities; participants were exposed to a variety of guest speakers and instructors with classroom continuity provided by a Senior Directing Staff (SDS) – normally a contracted retired general or flag officer. NSP methodology shattered this paradigmatic approach to PME, relying instead upon a blend of doctorate-level teaching teams, which provide academic continuity through each of seven integrated core courses and SDS (refashioned as Senior Mentors in the programme’s second serial), who have been entrusted with relating these intellectually rigorous studies to professional practice. And while emphasis upon external speakers has been diminished as a result of the new teaching concept, guests still play a valuable role in providing outside viewpoints to NSP participants at selected points in the curriculum. In short, the new tripartite methodology purposefully strings together the various instructional themes of the programme into a more continuous whole – one that holistically links theory and practice in admirable fashion.

The second key factor in this evolutionary process was an explicit adjustment to the structure of the NSP nominal roll. This structure was evident in the AFC guidance, which read: “International military officers, DND executives and *civilians from other government departments and agencies* may also participate in the NSP” (emphasis added).¹⁴ As previously discussed, civilian participation on AMSP was non-existent, and such involvement on NSSP was limited to no more than one-tenth of the roll, and composed only of DND executives. NSP has broken new ground in this respect. In the pilot serial, civilian executive membership ballooned to 25 percent, and included participants from the Department of Foreign Affairs and International Trade, Public Safety Canada, the Department of

Justice, and Public Works and Government Services Canada, in addition to one member from the private sector, and three members from DND. The aggressive campaign for a comprehensive nominal roll continued into follow-on serials. As the programme hit steady state in its third iteration, it boasted a civilian contingent of one-third drawn from eight different government departments/agencies and the private sector. This wide-ranging student base has important, beneficial impact upon all participants – military to civilian, Canadian to international; it is perhaps the value of this dynamic that accounts for the 42 percent hike in civilian participation, and the corresponding jump of 33 percent in outside organizations represented between the first and third serials.

In short, the NSP represents a ground-breaking, holistic approach to the problems of today, and where AMSP and NSSP were appropriate in their time, NSP is appropriate now. Through careful balancing of teaching method and programme composition, the NSP seeks to bridge the gaps among governmental agencies, and between the public and private sectors. And it does so through a well-considered blend of critical thinking, fostered by academic study and professional growth cultivated by retired practitioners. This leads to the most important question of all; namely, what does the NSP graduate provide to both the Canadian Forces and the Government of Canada?

“Explicit in the AFC direction were two key points which clearly differentiated the NSP from its predecessors: its method of study, and its nominal roll.”



Course NSP 01 ‘gets an earful’ from a very experienced soldier, Brigadier-General David Fraser.

The Result

The NSP graduate is a unique individual capable of fulfilling four important roles within the broader national security apparatus of the state. Participants leave the programme with the requisite understanding to serve as a Leader of the Institution, to act as an Implementer of National Security Policy, to perform as a Designer of National

DND photo by Sergeant Charles Barber, J6 Imagery, CFC

Strategy, and to operate as an Interpreter in the Nexus (between the strategic and operational).¹⁵ These capacities are not confined to the sphere of defence, or to the nation of Canada; leaders graduating from the NSP bring their new-found expertise to the civilian public and private sectors, and to the foreign nations from whence they came. The skill set delivered by the NSP is perhaps one of the most universal designed to date. And while this skill set is distinctly Canadian in flavour, the programme is designed to provide full equivalency with a number of war colleges run by Canada's allies, such as those in Australia, Brazil, Pakistan, Poland, the United Kingdom, and the United States.¹⁶

Before discussing these unique competencies at any length, it is important to understand the migration of NSP from a blend of AMSP and NSSP into its own unique programme with its own distinct aim. As mentioned earlier, the aim of the pilot serial unified those of NSP's forebears into a coherent whole, doing so in a manner that maintained two foci – a duality that was, at times, difficult to rectify. Having identified the difficulties in addressing both the strategic and operational levels in a single curriculum during the first two serials, the aim of NSP veered distinctly towards the strategic in the third and fourth serials. The current aim reads as follows:

The aim of the NSP is to prepare selected military, public service, international and private sector leaders for future strategic responsibilities within a complex and ambiguous global security environment.¹⁷

This new aim, clearly different than its predecessor, unequivocally 'placed NSP on its own road.' First, it defined the nominal roll, and, by dint of naming its players, forced NSP into the national security arena, rather than the more narrow defence realm. Second, the new aim drove NSP unmistakably onto the strategic plane, challenging participants to think in terms of linking national ways and means to ends, rather than thinking in more conventional campaign terms. Finally, it defined the environment, challenging students to think in 'shades of gray,' rather than in 'black and white.'

In an effort to familiarize participants with environmental ambiguity, the NSP curriculum imbeds complexity into both its courses and practicum. Academically, NSP pursues five programme goals to meet this end:

Strategic Command and Institutional Leadership. To further develop the participants' ability to evaluate and apply the principles of strategic command, leadership and management in leading the institutions of defence and national security and to evaluate and characterize institutional culture and ethos.

Strategic Resource Management. To refine the participants' understanding of strategic resource management in order to analyse institutional human resource policy and

to evaluate the impact of the Defence Resource Management System in generating and sustaining a national capacity to meet Canada's security needs.

Canadian National Security and International Relations. To further develop the participants' understanding of factors, both internal and external to Canada, that influence the implementation of Canada's national security policy and to examine the (international) geostrategic environment that influences national security strategy as it pertains to Canada's national interests and the promotion of Canada's values.

Strategic Concepts: Strategy Formulation and the Application of National Power. To further develop the participants' understanding of the elements of national power through an examination of its diplomatic/political, informational, sociocultural, military, and economic determinants; to analyse their influence on Canada's strategic options; and to evaluate the controls on their implementation in intra-, inter-, and non-governmental environments.

Comprehensive Campaign Planning in Complex Environments. To develop the participants' capacity to design comprehensive national and multinational campaign plans to generate strategic effects in complex security environments.¹⁸

The concepts enshrined in these goals seem relatively straightforward when taken at face value, but the simplicity ends there. Participants in the programme are asked to examine them from a different perspective, both academically and professionally. In each case, the individual is exposed to varying degrees of complexity, uncertainty, and disorder. Focused upon issues of national

and institutional leadership, participants rapidly learn that there are rarely any simple answers to the problems discussed – or perhaps better stated, there are a variety of answers that are more beneficial to some players than to others. Participants learn, not only of the complexity of whole-of-government approaches to complicated issues, but are forced to exercise this learning at various times in the programme in order to get some feel for the consensus approach to decision-making. In cases where the military voice is but one amongst many, persuasion – not direction – becomes the *sine qua non* of building appropriate, workable solutions.

Understanding the environment is vital to the educational evolution of the NSP graduate, and it helps build an officer who is truly capable of functioning as a Leader *of* the Institution, rather than simply a Leader *in* the Institution. The Government of Canada is hardly monolithic, and DND, while owning an important seat at the table, is certainly not the *only* player. In many cases, it is not even a *key* player. For these reasons, CF institutional leaders must be able to navigate through a complex, sometimes dangerous political landscape to ensure the health of the department, while simultaneously meeting broader government mandates. In other words, where

“In an effort to familiarize participants with environmental ambiguity, the NSP curriculum imbeds complexity into both its courses and practicum.”

Leaders *in* the Institution provide an extraordinarily important function of maintaining the ongoing viability, traditions, and expertise within the organization, Leaders *of* the Institution are responsible for providing the environment which allows that to happen. Since they are brought to maturity in the environment which they later lead, they are intimately familiar with the makeup and requirements of the institutional organism. The challenge in their new capacity is to represent that organism in the broader governmental context, preserve its integrity against those who would wield it in a manner inconsistent with its anatomy, and direct it in areas outside of its comfort zone when required by the state. Leaders *of* the Institution, while children of the institution, are vital to both its continued well-being and its utility in the broader governmental context.

“Opportunities to understand the importance of communication are embedded in both academic and practical activities throughout the programme.”

controlled environment, each participant graduates with the capacity to flow almost seamlessly into a position where he or she can play an immediate and consequential role guiding the institution in the implementation of national security policy.

Akin to this role is that of Designer of National Strategy. As national strategy should flow directly from the policy from which it was derived, it is natural that, as a Leader *of* the Institution and an Implementer of National Policy, the NSP graduate plays a critical role in translating policy into strategy. Strategy, the tool that links political ends to ways and means, is vital in making policy practical; in other words, *a policy without a strategy is merely an idea*. Ensuring that the idea can be practically supported from the twin standpoints of capability and capacity is the key to its successful implementation.

Programme participants, already leaders in their respective institutions, tend to understand intuitively whether their own institution has the capability and capacity to fulfill a given policy. What they gain from the NSP is an understanding of how to synergize these with other state and global actors, an insight into *how* to cooperate with other players to achieve broader goals, and an appreciation for the alignment of policy with national purpose and interest which may not be readily recognizable from *within* their home institution. The triangular nature of the first three roles is mutually reinforcing, and, in the long run, if not always the short, is vital to the health of both the state and

the institution which the individual participant serves.

The previously-described roles tend to exist in unity at the upper levels of the bureaucratic hierarchy. They interact for the good of both the state and the institution, but of what use are they if unable to drive the much larger pyramidal base? Obviously, they have negligible impact if not supported by the fourth role which the NSP impresses upon its participants – that of Interpreter in the Nexus. As enshrined in the first programme goal, communication through enlightened leadership and command is vital to the implementation of policy through both the design of realistic strategy and the ability to interpret strategic vision for the institution in which the NSP graduate serves. In short, it is not enough to provide strategic direction, for direction *misinterpreted* is direction *misapplied*, and is likely at odds with that of other actors. *At*



NSP 03 course photo.

NSP graduates are also Implementers of National Security Policy, a job that dovetails with their position as Leaders *of* the Institution. Because they have studied policy and strategy at the national level, they can flow into new positions with a more wide-ranging understanding of the architectural framework behind policy and strategy design, the key players in the bureaucratic environment, and the schema which drive outlooks within other organizations (both public and private, state and non-state). Attained through the comprehensive, professionally-based academic slate of the NSP, this knowledge is paired with lab-like experience earned through realistic field study and exercise activities embedded throughout the programme. While not a perfect substitute for related on-the-job experiences, the NSP practicums unquestionably expose future leaders to the nature and complexity of issues they will face upon graduation. Academically and experientially versed in a

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Aerial view of the Royal Military College in Kingston, Ontario

best, poorly interpreted direction results in loss of the synergy gained through proper strategic design; *at worst*, it can have catastrophic repercussions upon the international playing field. Opportunities to understand the importance of communication are embedded in both academic and practical activities throughout the programme. Through the study of communication and command models, participants gain an appreciation for the theoretical aspects of leadership and management at higher levels. Exercises and field studies reinforce this theory, and give the participants opportunity to utilize it in a relatively sterile environment, testing their communication skills in or in front of simulated parliamentary committees, media teams, coalition headquarters, and inter-departmental crisis teams. While perhaps not necessarily at ease with being the Interpreter in the Nexus by the end of the programme, participants can rightly say that they have been rigorously exposed to this function, and have had the opportunity to reflect upon its importance.

These four mutually-enforcing roles provide the CF with a well-rounded, versatile officer who, while not necessarily an authority in the complex, ambiguous environment of which he or she is about to become part, is both aware of its intricacies, and capable of considered action. More importantly, the graduate has the understanding and wherewithal to grasp the 'big picture,' translate it into a workable strategy, and drive his or her institution in a direction consistent with both national policy and institutional well-being. In a world that has become increasingly global, and where the far-reaching impact of seemingly innocuous decisions can reverberate elsewhere with deafening concussion, such capabilities in a senior officer corps are neither to be underrated, nor taken for granted. The welfare of Canada, the Department of National Defence, and the Canadian Forces is dependent upon it.

Conclusion

The intent of this short article was to highlight both the need for a course like the NSP, and to explain the criticality of the officer which the programme returns to the system. By the end of its third run, NSP had graduated 53 participants

from its rolls, 28 of whom have been CF officers who returned to the field to serve as critical players in the operational and strategic architecture of the Canadian Forces. Ten have earned a Master of Arts in Security and Defence Management and Policy from RMCC, and by the end of the 2011 academic year, four had achieved flag rank, giving these select few an even broader audience to serve, and a more appreciable arena in which to effect worthwhile change in the interests of national and institutional good. In all, the NSP has provided considerable 'bang for the buck,' and it offers the CF a versatile officer who is literate in both the needs of the institution and the needs of Canada itself.

The NSP is a unique programme within Canada that serves as a laboratory for senior officer excellence. It offers a course of study that few other institutions can match, in an environment that fosters whole-of-government understanding, appreciation, and evolution. While comprehensive interaction is certainly not uncommon in today's areas of conflict, mutual understanding between actors is often superficial and sometimes inflammatory. NSP provides an opportunity to understand various viewpoints, work through mutually amenable solutions, and communicate in a language common to the actors. It provides a deep-seated ability to think critically, and to analyze situations at more than just a cursory level. These benefits serve, not just the graduate, but those to whom he or she is responsible, those who are responsible to him or her, and those who are equals on the playing field. This sort of capacity can be contagious at the national, local, and institutional levels.

In his biography of Victorian general Charles George 'Chinese' Gordon, Sir William Francis Butler wrote: "The nation that will insist upon drawing a broad line of demarcation between the fighting man and the thinking man is liable to find its fighting done by fools and its thinking done by cowards."¹⁹ According to Butler, Gordon was a man who realized that soldiering meant more than fighting, and that thinking meant more than simply excelling in military tactics. In other words, he understood that there was no checklist for dealing with the complexities of the world, and he appreciated that

armed conflict was perhaps neither the best nor the only solution to the pressing issues facing Britain's empire in the late-1800s. In the main, today's problems are little different than those faced by Gordon, Butler, and their contemporaries. The confluence of past and present suggests that today's world needs more Gordons – men and women who can think critically and appreciate problems from different perspectives. The NSP seeks to do just this by taking promising officers and strengthening these qualities within them. In so doing, this vital Canadian programme offers an educational environment of which both Gordon and Butler would likely be proud.



Administration Building, Canadian Forces College.



NOTES

- The 'Axis of Evil' was first mentioned by President George W. Bush in his 2002 State of the Union address. See George W. Bush, "The President's State of the Union Address," 29 January 2002; <http://georgewbush-whitehouse.archives.gov/news/releases/2002/01/print/20020129-11.html>, accessed 4 June 2012. The background of the term 'Arc of Instability' is somewhat more nebulous, with references to the term found as far back as the 1970s. Australia began using the term in the late-1990s in reference to areas of the Pacific, and it increasingly entered the US military planning lexicon in a broader geographical context following the 11 September 2001 attacks.
- Department of National Defence, *Canada First Defence Strategy* (Ottawa: DND Canada, 2008), p. 6.
- Privy Council Office, *Securing an Open Society: Canada's National Security Policy* (Ottawa: PCO Canada, 2004), p. vii.
- Ibid.*, p. 3.
- George F. Kennan, "Comments on the General Trend of U.S. Foreign Policy," in *George F. Kennan Papers (Box 23)*, (draft paper, Princeton University, 20 August 1948), quoted in John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy During the Cold War*, 2nd Ed. (New York: Oxford University Press, 2005), p. 26.
- Canadian Forces College, *Joint Command and Staff Programme Syllabus: JCSP Residential and JCSP Distance Learning* (Toronto: Canadian Forces College, 2011), 1-1/9.
- Earlier versions of these programs were the Advanced Military Studies Course and the National Security Studies Course. The change in title reflected a change in CFC nomenclature and did not significantly affect course curriculum, though the focus drifted more towards the strategic in the former. For ease, AMSP and NSSP will be used in this document for standardization.
- Canadian Forces College, *Advanced Military Studies Programme 10 Syllabus* (Toronto: Canadian Forces College, 2007), para 201.
- Canadian Forces College, *National Security Studies Programme 10 Syllabus* (Toronto: Canadian Forces College, 2007), para 201.
- A review of CFC's nominal rolls showed that only 16 of 167 total students were not in the military; this equates to just under ten percent of the student population.
- Canadian Forces College, *National Security Programme 1 Syllabus* (Toronto: Canadian Forces College, 2008), 1-1/2.
- Chief of Military Personnel, CANFORGEN 064/08 *New National Security Programme (NSP)* (Ottawa: DND Canada, 3 Apr 2008), para 3.
- Ibid.*, para 4.
- Ibid.*, para 2.
- Department of National Defence, B-GJ-005-500/FP-000 *Canadian Forces Joint Publication 5.0 (CFJP 5.0): The Canadian Forces Operational Planning Process (OPP)*, Change 2 (Ottawa: DND Canada, April 2008), paras 106.1-2. Strategic and operational refer in this case to two levels of war commonly discussed in PME. Contemporary CF doctrine defines strategy as "the concept that links available national resources to government ends – over time and as circumstances change. For the Department [of National Defence] and the Forces, strategy is about how to use our resources to best support the government's aims" (106.1). The operational level, on the other hand, focuses on the "joint employment of land, maritime and aerospace forces employed in sequential and simultaneous engagements that are linked by design in a campaign plan" in an effort to meet strategic ends (106.2).
- For a list of fully equivalent schools, see Canadian Defence Academy, *Canadian Defence Academy (CDA) Directive 02/12 Officer Developmental Period 4 (ODP4) Equivalency* (Kingston: Canadian Defence Academy, 23 April 2012), A-1/1. Partial equivalency from a variety of programmes is also available as laid out in the subject document.
- Canadian Forces College, *National Security Programme 4 Syllabus* (Toronto: Canadian Forces College, 2011), 1-1/9. The aims for NSP 3 and 4 are identical.
- Ibid.*, 1-1/9 through 1-4/9.
- Colonel Sir William Francis Butler, *Charles George Gordon* (London: MacMillan and Co., 1889), p. 85. This quote (or one like it) is often attributed to Thucydides, but this author could find no mention of it in any of the current or historical editions of the famous Greek's *History of the Peloponnesian War* – his only known piece. The quote in this article can be attributed to Colonel Sir William Francis Butler, who wrote an important biography of Major-General Charles Gordon, the British officer who famously met his end at Khartoum. In the passage preceding the above quote, Butler wrote: Gordon understood the fact that nations as well as individuals have pulses, that the leader who would lead to any definite end must know how to count these pulsations, and, in addition to his skill as a sword-cutter, must be able to do a good deal of the binding up of wounds, even though he had himself caused them. To say this is, of course, only to say that Gordon was great, in a sense greater than any merit of action in arms could aspire to. Gordon seemed to have understood that while war involves breaking, it also involves building. Likely, he would have been a keen advocate of the National Security Programme.



German soldiers specializing in nuclear, biological, and chemical warfare detection and decontamination on exercise near Kuwait City, 2003.

FROM BATTLESPACE TO BATTLESPHERE

by Peter H. Denton

Introduction and Background

The current reality of warfare has outstripped our ability to describe it. In using words/phrases like ‘asymmetric’ or ‘fourth-generation’ warfare, referring to ‘the three-block war’ or ‘counter-insurgency operations’ (COINOPS), different efforts have been made to describe the changing nature of war in the 21st Century.¹ Thanks to developments in technology, tactical objectives may now be more easily achieved on the battlefield, but they are also placed within a strategic mission opaquely intended to ‘win the hearts and minds’ of a civilian population entwined in the conflict.

Given space-based weapons systems, cyber-warfare, biological warfare, electronic warfare, economic warfare, and whatever else inventive minds can create to harm their antagonists, ‘battlefield’ as a concept evokes archaic images of British ‘redcoats’ forming square to repel cavalry. There has been a growing consensus that the appropriate term should instead be ‘battlespace.’² While there are some advantages to the battlespace concept (and I have used it myself),³ it is ultimately inadequate to describe 21st Century warfare, and this is for two main reasons. First, battlespace as a concept is dimensionally inadequate. It has no necessary or identifiable boundaries. In its *weak* form, it is merely an arbitrary extension of

the battlefield concept to incorporate more (but not all) of the additional elements believed to affect some particular engagement. In its *strong* form, it requires us to consider all aspects of society and culture in terms of their potential involvement in the conduct of 21st Century warfare.

To consider the *weak* form of the concept, extending the battlefield into a larger battlespace does have some merit, as it involves air, sea, electronic, and space assets able to affect (in some fashion) specific combat operations. It means, at least in theory, that the commander can weave all these things together to create a local tactical advantage, including whatever is known about the civilian population in an area. There are, however, a wide variety of factors outside a commander’s control that can have a material effect, not only on the conduct of any specific engagement, but also on its aftermath.

Cyber-warfare is often cited as one example – what might happen if a delivery guidance system could be hijacked by the enemy, or if GPS navigation could be skewed or shut down – but there are many far less dramatic ways to disrupt technologically complex and therefore fragile combat systems.

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Outside the firefight, ‘just-in-time’ logistical systems also illustrate the vulnerability of the high-technology modern military. An entire system can be rendered combat ineffective merely by delaying the arrival of one of the essential components required for its operation.

Similarly, if the objective is to take a hill, it can be accomplished more effectively, more rapidly, and with fewer ‘friendly’ (blue) casualties and less collateral damage than ever before. Yet, maintaining control of that hill by gaining the trust of the local population is much more difficult, and it requires an entirely different set of skills. In fact, it may be argued that the weak version of the battlespace concept only works at all because it limits arbitrarily what factors may be seen to apply in theatre to the conduct and aftermath of a specific mission. The battlespace includes what we *want* it to include, for the *purposes* we choose – and the lethal assumption is that the enemy will concur with the choices we make as to its elements and its boundaries. While the so-called ‘CNN Effect’ might be a concern when combat occurs in view of the media, there is nothing vague about the firefight itself. Abstract discussions about the indefinite character and indistinct boundaries of the contemporary battlespace are quickly rendered into real problems, in real-time, on the battlefield.

“At a tactical level, therefore, problems may only escalate when operational doctrine embraces ‘the battlespace.’”

If we consider the *strong* version of battlespace, the situation just gets worse. War is potentially everywhere, involving everyone, at every moment. Peace is never an option. When you think you are at peace, it is merely the lull before you become aware of the next clever attack from some as-yet unidentified direction, or the danger posed by some as-yet unrecognized threat. In addition to being highly pessimistic about any long-term prospects for a peaceful global society,

the strong version actually contributes to social paranoia in ways that might, in fact, increase the potential for conflict. There is no act that might not be hostile; no person who might not be an enemy; no circumstance in which one’s vigilance may be relaxed. Apart from its value in describing perpetual total war undertaken by an utterly totalitarian state, it is a blunt analytical tool.

Practically speaking, in both its weak and strong forms, battlespace as a concept is dimensionally inadequate. Where does the battlespace begin and end? How does one either defend against potential enemies, or successfully attack them if the location of the conflict is only vaguely described? How does one undertake a threat assessment, when neither the direction nor form of the threat can be more than vaguely identified? How does one maintain constant combat readiness, everywhere, and at all times? On top of all these problems, if

we factor in the role of the media, of public opinion, of domestic political concerns – all of which affect the conduct of military operations in the 21st Century -- what had been ‘complexity squared’ to begin with is easily cubed or quadrupled.⁴

This leads to the second main reason for the inadequacy of the battlespace concept in depicting 21st Century warfare, namely, that it is also functionally inadequate. It does not lead to effective doctrine, to appropriate threat assessment, or to efficient procurement decisions. At a strategic level, especially, the vague and indistinct boundaries of ‘the battlespace’ make it literally impossible to develop a coherent doctrine, accompanied by adequate resources to implement it, when the boundaries of any real or potential

conflict are simultaneously so extensive and so diffuse.

Practically speaking, relying upon the concept of the battlespace to drive doctrinal development, in effect, takes doctrine ‘off the table’ when it comes both to threat assessment and to making procurement decisions. If we are unsure of whom the enemy might be, or from what direction we might be attacked; if we are uncertain whether there might even be



Analysts work in the watch and warning centre of a cyber security defence lab at the Idaho National Laboratory, September 2011.

At a tactical level, therefore, problems may only escalate when operational doctrine embraces ‘the battlespace.’ Assisting the local commander with expertise from afar may neither be helpful nor effective. Efforts to relocate ‘fire’ decisions to some command centre a long distance away, where data can be analyzed and other legal or political dimensions of the threat considered, only add a level of complexity to any firefight that may well jeopardize the outcome.

Reuters photo RTR2SOOR by Jim Urquhart

an attack; if we do not know what form any attack might take; specific threat assessment also becomes impossible. Without such an assessment, it is equally impossible to define operational requirements in ways able to overcome the inevitable organizational and political pressures involved in the procurement process. Without a definable threat, and without a clear requirement for the means to counter that threat, procurement decisions are instead likely to be made *in the moment* according to the whim of the leaders (military, political, or economic), whose individual interests are thus given priority by default. The military may end up with the right tools, in the right place, at the right time – but dangerously more by *accident* than by *design*.

While all these criticisms undermine the validity of replacing ‘battlefield’ with ‘battlespace,’ the dilemma remains that a ‘strategic corporal’ actually may make choices in combat that have global consequences. In 21st Century warfare, poor decisions by one unit, one commander, even one soldier, might dramatically shift the balance of force in such a way as to undermine the intentions, efforts and sacrifices of many others. This is because war is no longer confined to the battlefield, nor are the efforts of those engaged in combat necessarily what determine the outcome of any conflict.

Therefore, I propose, as an alternative, the idea of ‘the battlesphere.’ It provides us with the conceptual and analytical tools required for the development of doctrine and tactics appropriate to the changing conditions of 21st Century warfare.

The Battlesphere

To begin with a definition, *the battlesphere is the dynamic operational sphere surrounding a particular conflict which is bounded in all directions by its causal effects.* Included within that sphere are the dynamic relationships of the geographical, logistical, tactical, strategic, and human elements involved. The battlesphere is not the only sphere that needs to be defined, however. Two other spheres – the *ecosphere* and the *ethnosphere* – are interrelated with the battlesphere in the manner of a dynamically intersecting three-dimensional Venn diagram.

Thus, what I am proposing is a theoretical model with three main constituent elements. The primary advantage of using the sphere is the external boundary that it entails; there is a definable limit to our consideration, unlike the indistinct limits of the battlespace. A dynamic sphere allows those boundaries to grow and shrink, depending upon what goes on

within that sphere to make this happen. Spheres are also not linear or hierarchical; every point on its surface is equidistant from the centre, regardless of direction. It is a graphic reminder of the need to consider all dimensions of our actions, not the ones that present themselves to us most strongly at the time because of our own biases or interests. Understanding 21st Century warfare in terms of spheres is one way to counter tendencies to oversimplify our options and their effects because it requires us to consider whole systems, not merely linear, causal event chains.



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The wealth of literature emerging on non-combat dimensions of warfare in the 21st Century continues to increase. Ranging from theory pieces with examples drawn from specific conflicts, to analysis of specific conflicts that lead to observations on the theory of war,⁵ such wealth demonstrates the problem more than it proposes any unifying, broad-spectrum response. A conceptual framework is missing. If there are lessons to be learned from the experience of Iraq and Afghanistan, they need to include the development and application of doctrine to create such a conceptual framework. ‘Battlespace’ might depict more dimensions of 21st Century warfare than ‘battlefield,’ but it creates as many new problems as it solves.

Within each of the three spheres, there exists a multiplicity of sub-systems and smaller spheres. Depending upon our interests and abilities, we are able to focus on any of them, either in isolation or in combination, provided there is an awareness of the overall sphere within which they fit. Spheres also may be understood as varying in intensity the further from the central point or event one moves – like concentric, spherical waves moving out from the source equally in all directions. Such a model also incorporates the passage of time, with the initiating event being what creates the sphere of ensuing effects.

The Echosphere

It will help to begin with the most material of the spheres, the *ecosphere*. It was the term coined to capture *the dynamic relational sphere within which all organic and inorganic systems are to be found on earth*. The ecosphere thus includes the *geosphere* (earth beneath our feet), the *hydrosphere* (the water all around us), the *atmosphere* (the envelope of air we breathe) and the *biosphere* (the so-called web of life comprised of all living things). While each sphere has distinct characteristics, it is obvious that none exists without the others if we are considering the Earth itself as a whole. Within the hydrosphere, for example, it is possible to identify and analyze all the hydrological processes involved in a local system. Given that hydrology is affected by geology, the interactions between hydrosphere and geosphere can also be mapped in terms of the intensity of their relation – the more the overlap and for longer, the greater the intensity. Given that hydrosphere and atmosphere also intersect, what happens closest to the surface of the split between air and water will have the greatest intensity in terms of their relation – what happens deep in the ocean or high in the atmosphere may have some bearing on the interface, but it will not be as significant as a wind blowing over a lake.

It is therefore not difficult to conceptualize the intersection of the battlesphere and the ecosphere. Warfare of whatever sort takes place in a physical context. Everything from its munitions or means is a product of the ecosphere. The fighting takes place in the ecosphere, and everything from the effects on animals and vegetation, to the rearrangement or destruction of the physical surroundings, to the contamination of air or water, are easily seen as interactions with the ecosphere. So also are the people affected by or involved in the fighting. Afterwards, the effects may linger in the form of contamination – dioxins in Vietnamese water systems, unexploded munitions in the fields of France, radioactive soil from nuclear test sites, anthrax in the soil of a Scottish island, anti-personnel mines scattered across the fields of Afghanistan, or bones in the fields of Stalingrad – all these are the aftermath of war.

The preparations for war are equally evidence of this interaction between battlesphere and ecosphere, for things made into the materiel of war are not made into something else. Societies that opt for war spend their resources on it, rather than on other things, and the ecosphere is affected as a result. Seeing the battlesphere expanding out from its starting point, we are able to visualize and conceptualize the extent to which it engages the ecosphere through its physical overlap. Distance from the centre point

is a measure of declining intensity, either in terms of geography or chronology (the passage of time). The most extreme and extensive forms of warfare involve a larger interaction with the ecosphere. For example, global thermo-nuclear war would obviously be represented as a total over-lapping of ecosphere and battlesphere.

At the other end of the scale, the same action can have larger or smaller consequences in terms of the size of the battlesphere it creates. Killing a soldier with a knife might be an action with immediate and small-scale effects; killing a sentry quietly to allow for an invasion to take place that precipitates a war – or ends one – is a sphere of effects much larger than the first, even if the initial action is identical. The ‘old saw’ about how a kingdom was lost for the want of a horse-shoe nail is an example of how larger scale systems effects can follow from causes that might otherwise be seen as insignificant.

In every situation, we need to consider the system effects of the alternatives presented. Such consequentialist decision-making is obviously not a new idea. What is needed, however, is a conceptual model that allows for the three-dimensional mapping of potential outcomes, so that effects-based analysis comes closer to accurately representing the dynamic systems involved. We cannot afford the history of 21st Century warfare to become the same narrative of unintended consequences we find characteristic of earlier times. Considering the dynamic range of possible interactions included within the concept of the battlesphere enables a more coherent and consistent appreciation of the options involved. Thus, in terms of choices among alternatives, whether a battle takes place, using what tools, involving what personnel, all affects the size of the battlesphere and the intensity of its overlapping interaction with the ecosphere. Collateral damage, as well as intentional damage, needs to be assessed, not only in terms of human casualties, but also in terms of its physical and environmental consequences, both short-and-long-term.



A Royal Marine with the Unmanned Vehicle Robot *Testudo*, at the launch of the Defence Technology Plan in London, February 2009.

Reuters photo RTXC3RH by Luke MacGregor

For example, the tactical objective may be to stop an armored vehicle. The choice could be between an attack helicopter armed with depleted uranium ammunition; a precision guided munition that would also damage the roadway; some means of disabling the electrical system that renders the vehicle into an inert lump of metal; or sugar in the gas tank. The sphere of effects of each action is of a different size, even though the objective remains the same and is accomplished by all three possible tactics. Bounding the effects with a sphere that progresses chronologically, we could see the effects at D+10 minutes, D+10 hours, and D+10 years. We could also create a sphere relating the relative cost of the initiative, or its stealth, or its long-term consequences for the attitudes of the locals toward our intervention. In any of these instances, we can choose the parameters or boundaries of the effects, ascertain them, and then decide among alternatives which (for strategic as well as tactical reasons) have the most preferable outcome.

From the perspective of sustainability, war-planners and warriors alike need to consider, not only the immediate environmental impact of their choices, but also the long-term ecospherical implications. There is little point to ‘winning’ a conflict at a cost that is unacceptable in terms of its effects on the ecosphere. Ecospherical costs should be part of any calculation as to the means of achieving an objective. In 21st Century warfare, Pyrrhic victories should be avoided in ecospherical as well as in human terms.

In the days when the mission was to take and control territory, there was little point to destroying it first. The neutron bomb remains (theoretically) the ultimate capitalist weapon, presumed to be able to kill the people and leave their coffee shops intact. If the objective is to control a population, however, the conflict must also not kill or injure so many that an eventual peace is impossible or render unlikely their return to a normal existence. Thus, the desire to deny a resource to the enemy may lead to its destruction if there is no other way, but (in the longer term) this is counter-productive. Certainly, the scorched earth approach denies resources to an approaching enemy, but in the days when such tactics involved burning crops in the field, the following year the fields

could still be replanted. The use of chemical or biological agents to accomplish the same thing today may have much longer-term consequences – and the effects of nuclear weapons may linger for thousands of years.

When the consequences are local, however catastrophic they might be, there is the chance for the ecosphere to recover as a whole from whatever took place. When the battlesphere expands to include a larger portion of the ecosphere, the resilience of the system is compromised, and recovery will take longer, or (potentially) might not happen at all.

“When the consequences are local, however catastrophic they might be, there is the chance for the ecosphere to recover as a whole from whatever took place.”

The effects of military activities around the world upon climate change, and especially, upon global warming, from the manufacture to the use in practice and operations of military equipment, are therefore significant. If, in a global context, we are reaching a critical point in terms of greenhouse gas emissions, a large-scale conflict that involved a spike in combustion (everything from the inevitable fires, to the increase in aircraft sorties) could tip the ecosystem into an unrecoverable position. Nor is scale necessarily the only consideration, as a smaller but more intense conflagration might have the same global consequences. If we recall the oil fields of Kuwait, set on fire by the forces of Saddam Hussein in 1991, imagine the ecosystem effects of a nuclear explosion in a similar place, or a serious conflict fought elsewhere in a major urban area. In each instance, the core elements and the expanding dimension of a discernible boundary – in terms of its relevance to practice or event – can be identified. The key element is doing something—the battlesphere only interacts/intersects with the ecosphere when something measurable is actually done.



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The ecosphere has been observed to contain a series of interrelating spheres. As the current multiplication of military acronyms indicates, so also does the battlesphere. The 'command and control' (C2) structures developed (and targeted) during the 1991 Gulf War have become 'command, control, communications, computers, intelligence, surveillance and reconnaissance' capabilities (C4ISR). This reflects the changing face of 21st Century war, just as A-10 Warthogs have been replaced by remote-controlled *Predator* drones, and government press releases are supplemented by Tweets from combat or Facebook from the front lines.

Subsumed within the battlesphere, therefore, are the technological, doctrinal, cultural and social spheres relating to each of the antagonists. If we consider these elements as incapable of existing without the others and interrelating with each other in an ongoing and dynamic fashion, such an analytical approach gives us a better idea of the elements that are contained within this particular system. Unlike the indefinite concept of the battlespace, however, the battlesphere provides a boundary to the consideration of how these elements are interrelated (chronological or geographical) and with what intensity.

In a 21st century conflict, one side might use weapons systems requiring enhanced, high-technology munitions, with all the expensive design, manufacturing, delivery and deployment systems that are involved. The other side might use local, low-technology, renewable and simple weapons easily found at hand – *Predators* and thermal imaging versus rocks and birdcalls. How those systems are used and to what end creates other systems, each with their own means of development and delivery. Yet, the two cultures themselves – one focused upon minimizing risk and casualties, while the other one focused on glorifying risks and heroic death – create other opportunities for articulating the subsystems of the battlesphere in very different ways. We need to find a way to accommodate these elements as well.

By now, the additional dimension of the problem in terms of both ecosphere and battlesphere should be apparent: how do we understand the ideas, beliefs, even the feelings that may not directly and immediately cause us to do things, but which develop the background, context, and motivations for what we choose to do? How do we incorporate into our analysis the way in which events are interpreted and given meaning by the individuals and the communities which are affected?

We need a set of metrics that allows for more than merely the mapping of physical effects. We also need an analytical tool that does this in a way that avoids the vague and ominous observations too often associated with the battlespace.

While wary of the Ptolemaic trap of adding more epicycles until the model of interrelating spheres finally matches observations, there is a third such sphere to include – the *ethnosphere*.



A US Air Force *Predator* drone.

Reuters photo RTR2RFX/USAF handout

The Ethnosphere

The ethnosphere is what the Canadian anthropologist, ethno botanist, explorer, and photographer Wade Davis called web of cultural and social interactions that make us 'human.' It is "... the sum total of all thoughts and intuitions, myths and beliefs, ideas and inspirations brought into being by the human imagination since the dawn of consciousness."⁶ Extend that definition, in terms of the sociology of knowledge that would regard this consciousness as impossible without being embodied in some form of communication or practice, and the ethnosphere becomes *the totality of human motivations toward personal, social and cultural activities and the practical expression of what they mean.*

If the ecosphere defines where we live and the battlesphere what happens when we fight, the ethnosphere defines not only who we are, but how we answer that question, especially in our interactions with each other and with the planet. From the start, I should observe that the ethnosphere does not necessarily exist, any more than does the battlesphere or the ecosphere. The issue is not whether any of these three exist, but whether – individually as concepts, and collectively as a framework – they make sense of what we know and are therefore useful for guiding wise decisions. It is their *operational value*, not their *existential character*, which should concern us.

Apply method to the analysis of the planet on which we live, and the web of interrelations is helpfully labeled the ecosphere. Apply method to the analysis of all the material elements of 21st Century warfare, and these may just as helpfully be labeled the battlesphere. But within both of these spheres, there are non-material elements that have real and evident influence upon what humans choose to do.

Analyze what is meant by the ecosphere and you very quickly come up against what people understand about 'nature' and the human relation to the planet. When sound reasoning about changing behavior to combat climate change encounters religious perspectives that say God gave us the planet to do with as we please, reason too often beats a hasty retreat. Forced to choose between preserving the last animal of an endangered species and providing food for a human who can 'pay the tab,' with little hesitation, you will find that dinner is served.

Analyze what is meant by the battlesphere, and you will come up against ideas about race, ethnicity, religion, history, prejudice, fear, security, honour, vengeance, and a host of other feelings that lie behind why violence takes place. When sound reasoning about a peaceful settlement comes up against ignorance and fear, peace is a 'tough sell.' Forced to choose between co-existing with an old enemy or taking a chance on annihilation, you will find people with little hesitation 'rolling the dice' with their lives. If barriers to sustainability are social and cultural rather than scientific or technological, as I would argue is the case, then the struggle for a sustainable future takes place in the *ethnosphere*, not the *ecosphere*. If the barriers to world peace are at least as much social and cultural as they are political or economic, 'winning hearts and minds' is therefore also a struggle that takes place primarily in the *ethnosphere*, not in the *battlesphere*.

It is, first of all, what we think and believe that shapes what tools we have to hand in the ethnosphere, tools that are analytical, evaluative, predictive, or explanatory, and that incorporate whatever we understand about ourselves and the universe in which we live. Acting upon what we think or believe brings the ethnosphere into contact with both the ecosphere and the battlesphere. How strongly we believe or think something increases the overlap between the ethnosphere and the other two spheres, because the intensity of our feeling leads to the motivation and persistence with which we act on it or fight because of it.⁷



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“By itself, any idea we have exists first in our personal sphere within the larger ethnosphere...”

By itself, any idea we have exists first in our personal sphere within the larger ethnosphere; it is only when we talk about it to others, or act upon that idea by ourselves or in a group, that it has currency in the world and creates its own sphere of effects. The boundary of those effects may be identified and measured just as surely as anything more material that is part of either the ecosphere or the battlesphere. Yet, it is only when our own ideas intersect with those of other people -- what happens when we communicate them to others, what happens when we try to enact them in the world around us -- that there is also any kind of feedback that enables us to judge their ultimate validity.

If the ecosphere is comprised of a variety of spheres within its bounds, so also the ethnosphere is comprised of those smaller spheres that constitute all of us thinking, as individuals, and as groups. A group made up of people who share an equivalent set of values, words, and ideas will overlap each other's ethnosphere almost totally. This creates a more intense relation between people, but in the absence of external validation from other people, or confirmation of the validity of ideas from interaction with the ecosphere, the relation may be entirely misguided, and the ideas incorrect. They still persist, however, in the ethnosphere. The ethnosphere, as an operational concept, explains the persistence of ideas that should otherwise be eliminated from our life together because of their absurdity in real terms. All evidence to the contrary, there were still cavalry enthusiasts after the Great War of 1914-1918, just as there are still people today who plan for a 'winnable' nuclear war. All evidence to the contrary, there are still intelligent and responsible people who believe climate change is not taking place, and there will continue to be water and food for a global population rapidly approaching any reasonable measure of global limits.



Charge of Flowerdew's Squadron, Lord Strathcona's Horse (Royal Canadians), Moreuil Wood, 30 March 1918, by Sir Alfred Munnings.

Century warfare, but it does not enable us to find a way of avoiding or resolving conflicts. The battlesphere results from our inability to resolve the issues *generated by and located within* the ethnosphere.

Consider two groups, each of which requires a resource (such as water) to survive. Who they are, as a group, involves an overlap between their identity and the ecosphere. The spheres generated by the two groups are overlapped at the source of the water both of them require. They might negotiate an answer, because the ethnospheres of each group values peace, co-existence, and generosity. Or, as too often is the case, if violence and power are valued, or fear is the dominant emotion, one side initiates a fight, and a battlesphere is generated as a result, the results of which are likely catastrophic for all.

Intersect the personal ethnospheres of two people with different ideas, and the result may either be understanding, as the areas of overlap are identified, or conflict, as each tries to persuade the other to abandon the ideas initially held. Similarly, the practical validity of ideas is tested by intersection with the ecosphere, not by refusing to use or to share them, as knowledge is measured against experience. It is the ideas and beliefs that are not intersected which create or perpetuate the conditions for a conflict. They persist, not because they have been validated, but only because they have not been challenged, either by intersection with the ideas of others, or by intersection with the practical world of the ecosphere. Existing only in the mind – or in the *shared* mind of those who agree not to allow such an intersection either with competing ideas, or with the physical world – such ideas may be both heritage and hazard.

The ethnosphere may be a well of past accumulated wisdom, whose relevance appears in the history of a community only occasionally, and is drawn upon as needed. But such dissociation from the practical requirements of daily life is also a hazard, because humans need to live ‘in the flesh,’ as well as ‘in the mind,’ and therefore, the ethnosphere inevitably intersects with the ecosphere as we act in some way upon what we believe.

Thus, while the battlesphere is descriptive of conflicting relations, it does not generate them. It is the result of the inability to resolve differences, not the reason for them. It allows us to understand the consequences of our actions, to see the range of effects among the choices involved in 21st

Sustainability in the 21st Century requires us to find other ways to resolve the overlapping of interests and needs, rather than through fighting. It pushes us to look for other means of avoiding conflict that resolve differences or emerging conflicts, other than by going to war when all sides, in the end, will lose. It also means that the most dangerous antagonists are those with literally no future to lose – considering the esteemed French political scientist Dominic Moïsi’s analysis of the geography of emotion, if people have no hope and no future, and they think ‘the enemy’ has both, then this is a recipe for disaster for everyone.⁸

“Total War is the overlap of ecosphere and battlesphere – a world – wide conflict.”

Thus, I suggest the three-sphere dynamic is more than a better way to understand and manage the inevitable conflicts of the 21st Century. It points to where our work most needs to be done, in understanding and managing the ethnosphere toward a sustainable future for everyone, not in some competition to be the last culture, the last group, or the last individual still standing at the end of it all.

Total war is the overlap of ecosphere and battlesphere – a world-wide conflict. Yet, in an operational context, it will only involve an intersection with the ethnosphere in terms of those values and beliefs that have created or will perpetuate the war. If one is fighting a total war, values apart from doing whatever it takes to win become irrelevant. But, if the ethnosphere and the ecosphere were overlapped, instead – if values and beliefs were shared across the planet in the absence of competition and conflict – this would also constitute the conditions for total peace. It would also engage all our resources, intellectual and spiritual, in *relating to* and *grappling with* the problems



Future soldier in advanced armour.

NOTES

1. For example, Thomas X. Hammes, *The Sling and the Stone: On War in the 21st Century* (St. Paul, MN: Zenith Press, 2006), and Rupert Smith, *The Utility of Force: The Art of War in the Modern World* (2005; rpt. New York: Vintage, 2008). See also Tim Blackmore, *War X* (2005; Toronto: University of Toronto Press, 2006).
2. There is no specific origin to the term, but for an early discussion, see Stuart E. Johnson and Martin C. Libicki, (eds.), *Dominant Battlespace Knowledge* (1996; rpt. Honolulu: University Press of the Pacific, 2003), especially Paul Bracken, "The Significance of DBK," p. 64.
3. Peter H. Denton, (ed.), *Believers in the Battlespace: Religion, Ideology and War* (Kingston, ON: CDA Press, 2011). The concept of the battlesphere was first discussed in Chapter 5.2, "Peace for our Time," pp. 216-219. See also "Believers in the Battlespace." in the *Canadian Military Journal*, Vol. 9, No. 1 (Fall 2008), pp. 100-101.
4. For commentary on the implications of the 'battlespace,' see Bernd Horn's "Complexity Squared: Operating in the Future Battlespace," in the *Canadian Military Journal*, Vol. 4, No. 3 (Autumn 2003), pp. 7-16; and Ian Hope's guest editorial in the *Canadian Army Journal*, Vol. 10 No. 1 (Spring 2007), pp. 5-9.
5. There are many examples out of the experiences of Iraq and (for Canada) Afghanistan. See Rory Stewart and Gerald Knaus, *Can Intervention Work?* (New York: Norton, 2011). An emerging genre of 'futuretech' and war, such as P.W. Singer, *Wired for War: the Robotic Revolution and Conflict in the 21st Century* (Penguin, 2009), needs to be read with caution – see my "The End of Asymmetry: Force Disparity and the Aims of War," in the *Canadian Military Journal*, Vol. 7, No. 2 (Summer 2006), pp. 23-28, reprinted in Emily Spencer (ed.), *The Difficult War: Perspectives on Insurgency and Special Operations Forces* (Toronto/Kingston: Dundurn/CDA Press, 2009), pp. 43-52.
6. Wade Davis, *The Wayfinders: Why Ancient Wisdom Matters in the Modern World* (Toronto: Anansi, 2009), p. 2.
7. More and more authors are exploring what I consider the intersection between battlesphere and ethnosphere – the attitudes, values, and beliefs that lie behind the conflict itself. Chris Hedges, *War is a Force that Gives Us Meaning* (New York: Anchor, 2003); Samantha Nutt, *Damned Nations: Greed, Guns, Armies and Aid* (Toronto: McClelland and Stewart, 2011); Noah Richler, *What We Talk About When We Talk About War* (Fredericton, NB: Goose Lane, 2012); John Horgan, *The End of War* (San Francisco: McSweeney's Books, 2012); and Joshua S. Goldstein, *Winning the War on War: the Decline of Armed Conflict Worldwide* (New York: Dutton, 2011). For an intersection of the battlesphere, the ethnosphere and the ecosphere, see Christian Parenti, *Tropic of Chaos: Climate Change and the New Geography of Violence* (New York: Nations Books, 2011).
8. Dominique Moisi, *The Geopolitics of Emotion: How Cultures of Fear, Humiliation and Hope Are Reshaping the World* (New York: Doubleday, 2009).

the ecosphere presents for a sustainable future.

There will always be difference, but if that is seen as variety and diversity, and not as threat, then shared values of working toward a sustainable future for everyone would minimize the resulting conflict -- and any battlesphere would be minimal in size, in response.

Conclusion

The ecosphere has definite, discernible parameters, and it enables us to understand what sustainability requires for life on earth. The battlesphere, in terms of identifying the parameters of conflict and its effects, enables us to identify and understand the consequences of 21st Century warfare in all its dimensions – physical, social, cultural, environmental and psychological. Intersect these two spheres, and we can measure the effects of conflict upon whether there will be a sustainable future for anyone, winner or loser. Yet, ultimately, the problems we face and whatever solutions there might be are to be found in the ethnosphere. After all, we are human. Understanding what that means is at the heart of whatever future we choose to create, just as it has always been.





Reuters photo RT/R23HF by Ahmad Masood

People run from a suicide car bomb blast outside the German embassy in Kabul, Afghanistan, 17 January 2009.

FORCE PROTECTION AND SUICIDE BOMBERS: THE NECESSITY FOR TWO TYPES OF CANADIAN MILITARY RED TEAMS

by Robert J. Bunker

Introduction and Background

This article will discuss why the use of two types of red teams - analytical and physical - to identify and then simulate 'suicide bomber threat scenarios' is necessary for the force protection training of deploying Canadian military units. Red teaming as a discipline can be divided into two basic forms: (1) analytical red teaming, which is *diegetic* in nature; that is, based upon descriptive products and decision support functions and (2) physical red teaming, which is *mimetic* in nature; that is, derived from live-action and role playing-based training with an opposing force (OPFOR) deployed against a friendly military unit.¹ These forms of red teaming are intimately linked, create synergies when utilized together, and should be fully harnessed for Canadian military force protection requirements. One of the greatest lost opportunities of utilizing red teams in the past has been the decoupling of these two very different forms of red teams from one another.

The article will be divided into three main sections that a) provide general guidance concerning how to determine enemy intent (and capability) via analytical red teaming, b)

show how to determine and prioritize the types of likely suicide bomber threat scenarios a deployed force will face, and c) show how to conduct the physical red teaming of these identified higher priority suicide bomber threat scenarios. It will conclude with some general observations concerning the value both forms of red teaming provide for the force protection requirements of deploying Canadian military units against the threat of suicide bombings.

A brief overview of the threat suicide bombings represent to military forces and the globalization of this terrorist and insurgent technique needs to be provided for context. Contemporary suicide bombings have been taking place since the early-1980s, and have been directed at both military and

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At the scene of the aftermath of a suicide bomber attack in Kandahar, Afghanistan, 27 November 2006, the Canadian Provincial Reconstruction Team Quick Response Force responded to secure the site along Highway 4.

of Canadian fatalities and casualties have been documented in Afghanistan—and they are expected to continue sporadically into the future while Canadian forces remain deployed in that theatre of operations.

Determining Enemy Intent (and Capability) via Analytical Red Teaming

The value of analytical red teams that focus upon the threat of opposing force use of suicide bombers is to provide early warning of enemy intent and capability. Ideally, this early warning will be provided in the pre-deployment phase prior to a Canadian military

civilian target sets.² The first such bombing can be directly traced back to a military engagement that took place during the Iran-Iraq War of 1980-1988. The celebrated action of Hossein Fahmideh, a 13-year old boy who destroyed an Iraqi tank at the Battle of Khorramshahr in 1982, was the focal event. Hossein sacrificed his own life, detonating a satchel charge underneath an Iraqi tank in a final act of desperation.³ This technique, which resonated with the cult of the martyr in Iran, quickly evolved and became an operational component of the Hizbollah organization, which was composed of former Iranian Revolutionary Guards, and was exported to Lebanon in the fight against the Israeli Defense Forces (IDF). These suicide bomber attacks, specifically utilizing vehicular-borne improvised explosive devices (VBIEDs), targeted Israeli military convoys and assets. In addition, foreign military and diplomatic facilities were targeted and destroyed by Hizbollah operatives.⁴ The use of suicide bombings has since spread globally, and has been used in stand alone attacks, in combinations with multiple suicide bombers, or secondary avenue of approach VBIEDs, and alongside active aggressor assault and hostage-taking operations. The Tamil Tigers engaged in their first suicide bombing in 1987, Hamas in 1993, Palestine Islamic Jihad (PIJ) in 1994, Kurdistan Workers Party (PKK) in 1996, Al Qaeda in 1998, the Chechens in 2000, the Al -Aqsa Martyrs Brigades in 2002, and the Taliban in the 2003/2004 period.⁵ Since the early-1980s, well over a thousand contemporary suicide bombings have taken place, with the vast majority of incidents clustered in the Israeli area of operations, Iraq, Afghanistan, Pakistan, and Sri Lanka. Canadian military forces deployed overseas have not been immune to these attacks—a number of instances

force entering a threat environment. This function would exist at the ‘strategic early warning’ level with the analysis focusing upon general historical suicide bombing threats through current theatre of operations I&W (indications and warnings), and actual suicide bombing incidents targeting allied military forces. Once a Canadian military force has been deployed into a foreign theatre, ‘operational early warning’ should then be concentrated upon. This type of analysis will concern itself with current theatre of operations I&W pertaining to Canadian military forces, and actual incidents targeting those forces and their in-theatre allies.

For example, at the ‘strategic early warning’ level of analysis, the various terrorist and insurgent groups that engage in suicide bombings have signatures which betray the patterns and techniques that they utilize when engaging in such operations. In 2003, this author was able to determine the general patterns of suicide bomber delivery modes and target sets by the major groups involved in these activities. These patterns can be viewed in Table 1 and Table 2.⁶

Major Groups by “Suicide Bomber” Delivery Mode				
Group	Personnel (Human)	Vehicular	Aircraft	Vessel
al-Aqsa Martyrs Brigades	Yes	No	No	No
Al Qaeda	Yes	Yes	Yes	Yes
Chechens	Yes	Yes	No	No
Hamas	Yes	Yes	No	No
Hezbollah	Yes	Yes	No	No
Kurdistan Workers Party (PKK)	Yes	No	No	No
Palestine Islamic Jihad (PIJ)	Yes	Yes	No	Yes
Tamil Tigers (LTTE)	Yes	Yes	No	Yes

Table 1

Source: Counter-OPFOR Program. NLECTC-West©2003

Robert J. Bunker and 17 Wing Publishing Winnipeg

Major Groups by "Suicide Bomber" Target Set							
Group	Civilian (Personnel)	Military/LE* (Personnel)	VIP	Transit	Aircraft	Vessel	Buildings/ Infrastructure
al-Aqsa Martyrs Brigades	Yes	Yes	No	Yes	No	No	Yes
Al Qaeda	Yes	Yes	Yes	No	Yes	Yes	Yes
Chechens	Yes	Yes	Yes	Yes	No	No	Yes
Hamas	Yes	Yes	No	Yes	No	No	Yes
Hezbollah	Yes	Yes	No	No	No	No	Yes
Kurdistan Workers Party (PKK)	Yes	Yes	Yes	No	No	No	Yes
Palestine Islamic Jihad (PIJ)	Yes	Yes	No	Yes	No	Yes	Yes
Tamil Tigers (LTTE)	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 2

Source: Counter-OPFOR Program. NLECTC-West©2003

These tables were derived from a multi-year study related to the historical analysis of terrorist and insurgent group suicide bombing incidents. Such incidents, when tracked over time, readily provide data points concerning the range of casualties (minimums and maximums) of successful operations and other important information including the time of day, type of attack, number of perpetrators, and so on. Hamas, for example, became very adept at utilizing suicide anti-personnel devices on public buses in Israel while the PKK in Turkey went through a pattern of utilizing women suicide bombers, some of whom feigned pregnancy, in order to appear non-threatening to targeted police forces. Additionally, prior to US deployment of military forces into Iraq in March 2003, this author and a colleague meeting at the County Emergency Operations Center (CEOC) in Los Angeles, California, came across initial I&W concerning threatened suicide bombing use against American forces. This prompted them to begin data collection in December 2002 on this potential threat and, as a result, to be able to accurately project that such opposing force operations would be take place during Operation *Iraqi Freedom*.⁷ One outcome of this red team analysis was that this author was able to provide training at a Force Protection Conference for the I Marine Expeditionary Force (MEF) in Camp Pendleton, California, in November 2003, regarding this threat. He specifically focused upon the historical Hizbollah use of VBIEDs ramming and detonating in the middle of Israeli conveys in Southern Lebanon in the early-1980s as one of his major areas of concern for Marine units deployed in Iraq 20 years later.

After Canadian forces are deployed into a theatre of operations, such as Afghanistan, the 'operational early warning' level of

analysis should then become dominant. At this level, opposing force tactics, techniques, and procedures (TTPs) should be included in the operational early warning being conducted. For Canadian military force protection needs, this red team analysis should include I&W and the Canadian operational experience in that theater of operations and/or against that specific opposing force, such as Al Qaeda elements, if Canadian forces have engaged them in earlier deployments. Canadian operational experience is gained through opposing force suicide bombing plots, both failed attempts, and successful attacks that result in casualties and fatalities inflicted upon its military forces. These operational level lessons learned should be broadened to include opposing force suicide bombing operations targeted against allied and coalition forces alongside which Canadian military forces are deployed. A basic example of this red team analysis pertaining to successful Al Qaeda and Taliban suicide bombing operations that resulted in Canadian military fatalities has been highlighted.



Reuters photo RTR/BOGS by Ahmad Masood

A British soldier watches security personnel standing in front of vehicles destroyed in Kabul, Afghanistan by a suicide attack, 15 November 2005.

Twelve fatalities have been identified via various modes of suicide bombings (individual, bicycle, and VBIED) directed at Canadian military forces while deployed in Afghanistan since early-2002. This represents just under eight percent of the total Canadian military fatalities that have taken place in Afghanistan, with the vast majority of these fatalities attributed to IEDs, both simple pressure and command-detonated devices. The following list documents these suicide bomber inflicted fatalities on Canadian military forces (*quoted from news sources*):⁸

“Derived from the historical lessons learned, the threat scenarios themselves should then begin to be identified for Canadian military deployments.”

- A suicide bomber in Kabul, Afghanistan, killed one Canadian soldier [Corporal Jamie Brendan Murphy] and wounded three others, officials said [January 27, 2004]. Nine civilians were hurt. Ali Jan Askaryar, head of police in the western district of Kabul, where the blast occurred, said the Canadians were part of a three-vehicle patrol and “a terrorist jumped on one of the vehicles and blew himself up.”⁹
- On July 22, 2006, Corporal Jason Patrick Warren and Corporal Francisco Gomez were killed by a suicide car bomb in Kandahar.... 40 minutes after the first bomb - a second suicide bomber blew himself up in the middle of the crowd that had gathered, inflicting fatal injuries on Qodus [a member of the production crew filming the aftermath of the first suicide bombing] and four other civilians and injuring many others.¹⁰
- On August 8, 2006, Corporal Andrew James Eykelenboom, 1st Field Ambulance, was killed by a suicide car bomb at Kandahar Airfield.¹¹
- On August 22, 2006, Corporal David Braun, 2nd Battalion, Princess Patricia’s Canadian Light Infantry, was killed by a suicide bomber in Khandar.¹²
- A suicide bomber on a bicycle detonated near NATO troops in southern Afghanistan Monday morning [September 18, 2006] as they handed out gifts to children, killing four Canadian soldiers [Corporal Keith Morely, Corporal Shane Keating, Private David Byers, and Corporal Glen Arnold] and wounding dozens of others, including civilians, according to the Canadian military and NATO... The Canadian soldiers— part of NATO’s International Security Assistance Forces—

were patrolling the Panjwayi District of Kandahar Province when the attack took place at 9:30 a.m. local time, according to ISAF.¹³

- Two Canadian soldiers [Corporal Albert Storm and Chief Warrant Officer Robert Girouard] were killed on November 27 [2006] at approximately 8:35 am (Kandahar time) when their

Bison Light Armoured Vehicle was attacked by a suicide bomber driving a car laden with explosives. The incident occurred on Highway 4 between Kandahar Airfield and Kandahar City. There were no other Canadian casualties.¹⁴

- Colonel Geoff Parker became the highest ranking Canadian to die in Afghanistan since Ottawa first committed troops here in 2002 when he was killed Tuesday [May 18, 2010] in a suicide bombing on the eastern outskirts of Kabul. Colonel Parker, of the Royal Canadian Regiment, was traveling with US troops at about 8 a.m. local time when a suicide bomber driving a mini-van with nearly a ton of explosives packed inside swerved into their convoy of three armoured SUVs, killing five Americans and at least 12 Afghan civilians who were passengers in a nearby bus.¹⁵

This list - in effect, very basic database entries - can be further developed along with Canadian military wounding incidents and failed suicide bombing attempts that resulted in no Canadian casualties. This compilation provides some insights into the types of suicide bombing incidents to which deployed Canadian forces have been subjected in Afghanistan.



Royal Air Force Senior Aircraftsman Katie Price (centre) plays the role of an insurgent detonating a suicide bomb during Exercise *Desert Eagle* at the Nevada Test and Training Range, 16 March 2011.

Defense Imagery.mil photo 110316-F-KX404-071 by Senior Airman Brett Clashman

Developing Suicide Bomber Threat Scenarios

While still the domain of analytical red teaming, the development of the suicide bomber threat scenarios also requires that a few physical red teaming specialists are involved. This should be considered an A-Red Team (Analytical) and P-Red Team (Physical) approach. It should be noted that very few individuals are able to effectively fulfill both the role of a red team *analyst* and a red team *operator*. When such individuals are identified, they should be considered a valuable commodity and allowed to serve as members of both red teams for continuity, and to ensure that ‘analytical intent’ is being followed at the physical training level.

Derived from the historical lessons learned, the threat scenarios themselves should then begin to be identified for Canadian military deployments. One approach is to first create a basic historical threat matrix (See Table 3). The various activities of a deployed military force are listed and then cross-referenced with basic suicide bomber threat categories. The one created in Table 3 provides low, medium, and high levels of concern, based upon the author’s analysis of which threat scenarios are more likely to take place than others, as derived from datasets of global suicide bombing incidents.¹⁶ This initial analysis, however, is notional in nature and should only provide a starting point. This basic matrix would then be modified with the seven suicide bombing incidents that took place against Canadian military forces in Afghanistan (listed earlier) as in-theatre data points. Additionally, wounding only incidents and failed attacks (in which Canadian military forces suffered no casualties) can be added, along with suicide bomber attacks on allied forces. Some form of basic weighted values approach could be taken, where incidents with deaths are given a basic weighted number, and wounding and failed attacks being given a lower weighted value. Additionally, the columns representing the activities of the deployed military forces is subject to modification, with some activities being removed and others being added. Further, the activities themselves could be weighted, with a large amount of Canadian soldiers barracked at a specific location given a much higher weighted value, due to what the human and political loss would represent to the deployment in Afghanistan. This is not an exact science—far from it—the intent is to determine what

the threat has been to Canadian forces, and which activities of those forces are more of a concern (valued) than others, so that the threat scenarios of importance can be identified for red teaming and force protection training purposes.

Enemy intent, projected capability, I&W events, and incident trending over time must also be considered. The analytical red team, with the addition of some physical red team members, must address the issue of reactive vs. proactive analysis in providing its early warning and decision-support functions. This will have a significant impact upon the development of suicide bomber threat scenarios for training purposes. A reactive approach would focus upon only what types of suicide bombings have been conducted historically—the benefit is that it focuses limited monetary resources and red team analytical thinking with respect to known threats. A proactive approach attempts to project opposing force suicide bombing operational patterns into the future—the benefit here is that a deployed military force will not be as likely to get ‘blindsided’ by evolving opposing force suicide bombing tactics, techniques, and procedures (TTPs) and other innovations. The downside to being proactive is chasing ‘what if scenarios’ and squandering analysis and subsequent training time to the detriment of preparing against known operational threats. As a rule, new Canadian military analytical red teams should focus upon reactive analysis and master that discipline before ever attempting to take a more proactive approach.¹⁷

For the sake of simply showing how the process might work, in this instance we will go with the priority suicide bomber threat scenarios identified in Table 3. Those scenarios with the highest rankings are as follows, and they represent the best candidates for physical red teaming:

- a. Simple suicide bomber targeting military force at a checkpoint.
- b. Complex suicide bomber targeting field deployed and on patrol military forces.
- c. Simple VBIED targeting in convoy military forces.
- d. Complex VBIED targeting encamped/barracked military forces.

	Simple Suicide Bomber <i>(Individual suicide bomber with vest bomb)</i>	Complex Suicide Bomber <i>(Multiple individual suicide bombers with vest bombs/variant with active assault element)</i>	Simple VBIED <i>(Lone VBIED with single driver)</i>	Complex VBIED <i>(Multiple VBIEDS/variant with active assault element)</i>
Encamped/ Barracked <i>(static)</i>	Low	Low	Medium	*Highest
Checkpoint; Road/ Building <i>(static)</i>	*Highest	Medium	Low	Low
Field Deployed <i>(dynamic)</i>	Medium	*Highest	Low	Low
On Patrol <i>(dynamic)</i>	Medium	*Highest	Low	Low
In Convoy <i>(dynamic)</i>	Low	Low	*Highest	Medium

Table 3 - Suicide Bomber Threat Scenarios vs. Activities of a Deployed Military Force



US Army soldiers evaluate casualties after a 'suicide bomber' detonated a bomb in a crowd of local citizens/soldiers during a training mission at Fort Stewart, Georgia, 28 February 2007.

offered for such deploying forces was provided by the Terrorism Research Center (later purchased by Blackwater) under the Mirror Image program that began in June 2002, and provided over 100 training courses to US, Canadian, and allied military, law enforcement, and governmental personnel.¹⁸ With the disruptive business and ownership changes to Blackwater (later Xe), the original training team, in 2010, reconstituted itself under the Aeneas Group International, LLC (AGI) banner, and is now offering this training under the Terrorism 360 program.¹⁹

No other private entity offers red team training of this calibre. However, US military programs have been stood up such as the comprehensive 18 week Red Team

The Physical Red Teaming of Suicide Bomber Threat Scenarios

At this point, the red teaming form shifts over to the physical and role-playing world of red team operators. Either cross-trained individuals who are in both the analytical and physical red teaming cells will be involved for the sake of analytical continuity, or a few analytical red team advisors/observers will monitor the training to ensure the threat scenarios identified are appropriately followed. Two levels of training would then take place; a) Canadian military personnel undertake physical red team training and engage in suicide bombing operations against Canadian (blue) military units, and b) the friendly Canadian (blue) military unit in a force protection mission going up against the physical red team.

Leader's Course which began in 2006 and is provided by the US Army's University of Foreign Military and Cultural Studies (UFMCS) at Fort Leavenworth, Kansas. That course draws heavily upon anthropology and regional studies in addition to unconventional military theory, doctrine, and historical instances of red teaming. Other shorter and more specialized red teaming courses are now also being offered by UFMCS. The intent is to create course graduates with more refined critical thinking skills and to develop alternative points of view for Army battle staffs deployed overseas in such theatres as Iraq and Afghanistan.²⁰ While the UFMCS courses will prepare Canadian students to fulfill analytical red team roles, it is unknown to what extent physical red team training skills, including ideological immersion and role playing, are taught.

Unfortunately, it is still very common for US military forces to engage in only "B" level training, wherein the friendly forces go up against an *ad hoc* red team thrown together without any in-depth adversarial knowledge. This is typically seen in domestic base force protection training, but deploying US military units have also found themselves in this situation. A commitment should be made by the Canadian military to create actual physical red teams, and arguments have even been made, with much merit, that as many deploying troops as possible should take at least a week of physical red teaming training to better 'know thine enemy' before deploying overseas to Afghanistan. Pioneering red team training



Two US Army sergeants search the home of a suspected insurgent in Owesat, Iraq, 18 December 2007, after finding a grenade and other electronic items in response to a suicide bomber attack.

Another option to help develop physical red teaming skill sets is to engage in basic research and to undertake a literature review of what has been written on this training. The *Red Team Journal* website <<http://redteamjournal.com/>> provides predominantly analytical red teaming information - such as the “reciprocal net assessment” (RNA) approach, however, links and information exist to some physical resources. Additionally, US military and intelligence agency red cells and law enforcement affiliated entities, such as the National Tactical Officers Association (NTOA) Project Red, can be contacted for subject matter expert support. The guide *Red Teams and Counterterrorism Training*, written by Stephen Sloan and this author, published in 2011 by University of Oklahoma Press, for example focuses upon how to simulate active-aggressor forces, including those that may utilize suicide bombers.

“Another option to help develop physical red teaming skill sets is to engage in basic research and to undertake a literature review of what has been written on this training.”

Once a bona fide physical red team is created, or under some circumstances, a private military red team is contracted, the priority suicide bomber threat scenarios identified can be simulated. ‘Simunitions’ should be utilized. This allows for real weapons to be put into service, however, with barrel conversions made so that marking rounds are fired. Simulated explosive devices - from inert suicide vests through VBIEDs, also have to be obtained or created. The intent is for the Canadian military forces to undergo as realistic training as possible, and thus ‘train as they fight.’ Pyrotechnics, smoke, and other elements can also be brought into play. The creation of wounding make up applied to victims, and even recreating the sights and smells of an engagement - for example, the dumping of animal blood and entrails on a victim requiring medical attention - should also be considered as options during the simulated suicide bombing attacks against friendly forces. Like all forms of military training, the various protocols are determined and logically thought through, the hardware and necessary supplies procured, and the training venues are either selected or created. Training can take place at a central military facility, or a mobile training team approach can be taken. It is important to note that simple training should always take place before more complex training, thus the less involved suicide bomber incident scenarios should be conducted first. In addition, the skill set level exhibited by the red team *vis-à-vis* those being trained

should be initially determined. Sometimes below zone training (the red team initially performs below the capabilities of the friendly force) may be required as much as in zone training (red team parity with the friendly force) and above zone training (red team superiority over the friendly force), to allow training objectives to be met. Training is always dynamic, and scripting should be followed as little as possible, with basic training intent, derived from analytical red team guidance, promoted within an atmosphere of free play and improvisation.

After the physical red team is created and equipped, the training scenarios are developed, the referees and other contingencies are sorted out, and the means by which the training will be delivered is determined, the military personnel and units taking the training can be focused upon. In this instance, Canadian military forces being deploying overseas where opposing forces have engaged in suicide bombings would be given the highest training priority. These forces can either be trained following current Canadian force protection doctrine, or the training of this doctrine can become a component of the simulated force protection mission when the friendly unit is pitted against the physical red team. More competitive unit commanders will likely engage in their own force protection training even if such doctrinal training is provided when the unit is up against the red team.²¹ While this training is not meant to be a ‘win or lose’ proposition for the friendly forces - since often failure teaches us far more about personnel and unit readiness than success - some form of competition is always a good training motivator for the forces being trained. After action ‘hot washes’ and ‘lessons learned’ sessions are also imperative, with candid criticisms of individual and unit performance in the form of constructive feedback utilized to promote learning and training takeaways.



International peacekeepers investigate the site of a suicide car bomb attack in Kabul, Afghanistan, 28 January 2004.

Reuters photo RTFBC5D by Ahmad Masood

Conclusions

This article has demonstrated that the synergistic use of analytical and physical red teams together is extremely useful for the force protection training needs of deploying Canadian military units overseas in environments such as Afghanistan, where the ongoing threat of suicide bombings exist. While both forms of red teams may have in the past been utilized as ‘stand alone’ options by some military forces with success—this is especially true of the US armed services—the benefits of utilizing both forms together provide a far greater spectrum of force protection competency:

The benefits of *analytical* red teams include:

- Identify I&W Events, Anomalies, and Suicide Bombing Trends
- Early Warning (defensive; pre-attack alerts)
- Futures (offensive; battlespace shaping)
- Determining Enemy Intent/Capability
- Decision-Support
- Reactive and Proactive Strategy Options
- Identifying Highest Priority Suicide Bomber Threat Scenarios
- Analytical Intent Guiding Physical Training

The benefits of *physical* red teams include:

- Increasing Force Protection Training Proficiency
- Improved Survivability of the Forces Trained
- Identifying Training and Equipment Deficiencies
- Determining Force Protection Doctrinal Shortcomings
- Limiting Incidents of Tactical Surprise

NOTES

1. The Government of Canada “Red Teaming, Red Cells and Analytical Decision Support” project statement of work (SOW) [11-0234; Q0046BH234] provided background that describes two elementary forms of red teaming - mimetic red teaming and diegetic red teaming. The author has decided to utilize more common terminology for these forms of red teaming in this article. For a basic introduction to red teaming informational resources, see Robert J. Bunker, *Subject Bibliography: Red Teaming* (Quantico, VA: FBI Academy Library, December 2008).
2. For information on the earlier use of suicide

bombings and other forms of suicide operations in the Second World War against opposing military forces, see Richard O’Neill, *Suicide Squads* (Sydney: Lansdowne Press, 1981).

3. See May Rivers Films, *The Cult of the Suicide Bomber* (New York, NY: The Disinformation Company, Ltd., 2006), DVD, 96 mins. Narrated by Robert Baer.
4. These included Hezbollah front and allied groups, such as Amal. Surprisingly, one of these groups may have engaged in a December 1981 vehicular suicide bombing in Lebanon against the Iraqi embassy that would have predated the celebrated

martyrdom of Hossein Fahmideh. See the *RAND Terrorism Chronology* (1968-1997).

5. Robert J. Bunker and John P. Sullivan, *Suicide Bombings in Operation Iraqi Freedom*. Land Warfare Paper 46W (Arlington, VA: Institute of Land Warfare, Association of the US Army, September 2004), p. 4.
6. *Ibid*, p. 5.
7. *Ibid*, pp. 1-22.
8. These incidents focus on Canadian military fatalities. Numerous incidents of the wounding of Canadian soldiers also exist in the various news sources reviewed. Per one listing of Canadian

- Red Team Members Gaining Insights into Opposing Force Behaviors

Typically, analytical red teaming does not suffer from being de-coupled from physical red teaming because it provides command decision support and intelligence early warning functions. The training provided by the physical red team, however, is greatly enhanced by the analytical rigour of the more intelligence and command-focused red team. The analytical red team will also benefit from its association and links to the physical red team because of the feedback that it provides concerning the severity of the threat when simulated under field training conditions.

Additionally, the utilization of analytical and physical red teams is extremely cost effective and should be considered a direct ‘force multiplier’ that enhances the survivability of deployed forces by making them less vulnerable to suicide bomber attacks. Rather than spending limited resources on expensive military hardware, the red teaming approach invests in the human capital of the Canadian military forces themselves by means of enhancing their analytical skills, sharpening their understanding of the opposing forces they are facing, and ‘raising the bar’ for individual soldier and unit force protection training proficiency.

CMJ



Residents gather at the site of a bomb attack at Mwafaqija village in Mosul, Iraq, 10 August 2012.

Reuters photo RTR36WEG by Khaled al-Wosuly

- fatalities “154 Canadian soldiers, one Canadian reporter, one diplomat and two aid workers have been killed since the Canadian military deployed to Afghanistan in early 2002.” See “Timeline: Canadian deaths in Afghanistan.” *Canada.com*. 25 February 2011 at <<http://www.canada.com/news/Timeline+Canadian+deaths+Afghanistan/1037437/story.html>>, accessed 2 March 2011. Names of the Canadian military fatalities attributed to suicide bombings have been validated via *iCasualties.org*. See “Coalition Deaths By Nationality; Canada; Operation Enduring Freedom.” *iCasualties.org* at <<http://icasualties.org/oef/Nationality.aspx?hndQry=Canada>>, accessed 2 March 2011.
9. Times Wire Reports, “Suicide Bomber Kills Canadian Soldier,” in the *Los Angeles Times*, 27 January 2004, at <<http://articles.latimes.com/2004/jan/27/world/fg-briefs27>>, accessed 2 March 2011. A variation on this attack suggests that the suicide bomber was carrying an artillery shell and detonated next to the vehicle. See Ron Synovitz, “Afghanistan: Two Suicide Bombings In Kabul Raise Questions About Motives, Repercussions,” in *Radio Free Europe: Radio Liberty*. 29 January 2004, at <<http://www.rferl.org/content/article/1051370.html>>, accessed 2 March 2011.
 10. Coalition Deaths By Nationality; Canada; Operation Enduring Freedom,” in *iCasualties.org*, at <<http://icasualties.org/oef/Nationality.aspx?hndQry=Canada>>, accessed 2 March 2011; and “Suicide bomber kills TV employee covering death of two Canadian soldiers,” *IFEX*, 24 July 2006, at <http://www.ifex.org/afghanistan/2006/07/24/suicide_bomber_kills_tv_employee/>, accessed 2 March 2011. The date is listed wrong in this source.
 11. “Coalition Deaths By Nationality; Canada; Operation Enduring Freedom,” in *iCasualties.org*, at <<http://icasualties.org/oef/Nationality.aspx?hndQry=Canada>>, (accessed 2 March 2011).
 12. *Ibid.*
 13. “Bike bomb kills 4 Canadian troops,” in *CNN World*, at <http://articles.cnn.com/2006-09-18/world/afghanistan_1_canadian-soldiers-panjwayi-district-suicide-bomber?_s=PM:WORLD>, accessed 2 March 2011.
 14. “Two Canadian soldiers killed by suicide bomber.” News Release. CEF/COMFEC NR-06.032 – 28 November 2006, at <<http://www.cefcom.forces.gc.ca/pa-ap/nr-sp/doc-eng.asp?id=2150>>, accessed 2 March 2011.
 15. Matthew Fisher, “Canadian colonel dies in attack on NATO convoy in Kabul,” in the *National Post*, Tuesday, 18 May 2010, at <<http://www.nationalpost.com/news/story.html?id=3041858>>, accessed 2 March 2011.
 16. These datasets include *Appendix: Chronology of Suicide Bombings in Operation Iraqi Freedom*. Robert J. Bunker and John P. Sullivan, *Suicide Bombings in Operation Iraqi Freedom*. Land Warfare Paper No. 46W (Arlington, VA: The Institute of Land Warfare, Association of the United States Army, September 2004), pp. 15-19; *Palestinian Suicide Bombings since 1993*, Mohammed M. Hafez., *Manufacturing Human Bombs: The Making of Palestinian Suicide Bombers* (Washington, DC: United States Institute of Peace, 2006), pp.79-86; *Appendix 1: Suicide Terrorist Campaigns, 1980-2003*. Robert A. Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York, NY: Random House, 2005), pp. 253-264; *RAND Database of Worldwide Terrorism Incidents (RDWTI)*, at <<http://www.rand.org/nsrd/projects/terrorism-incidents.html>>; *SATP Suicide Attacks by the LTTE*, at <http://www.satp.org/satporgtp/countries/shrilanka/database/data_suicide_killings.htm>; *START Global Terrorism Database (GTD)*. <http://www.start.umd.edu/gtd/>; *Table 1: Successful Suicide Bombers and Table 2: Unsuccessful Suicide Bombers*. Debra D. Zedalis, *Female Suicide Bombers*. Carlisle Papers in Security Strategy (Carlisle, PA: Strategic Studies Institute, U.S. Army War College, June 2004), pp.3-6; *Appendix One: Chronology of Attacks* at <http://www.hrw.org/legacy/reports/2002/isrl-pa/ISRAELPA1002-08.htm#P1290_377952>; *Erased in a Moment: Suicide Bombing Attacks Against Israeli Civilians* (New York, NY: Human Rights Watch, 2002).
 17. The author had been involved in a multi-year strategic level projection of Al Qaeda use of body cavity suicide bombs against high value targets. Al Qaeda utilized such a device in Saudi Arabia in August 2009 in a failed assassination attempt against the Saudi Prince who was head of the Kingdom’s counter-terrorism operations. It takes years of analytical training to become competent in proactive analytical red teaming activities.
 18. The author took this physical red teaming training in 2005. It was innovative and extremely useful in nature. For a video overview of this training - which took place while the author was in attendance - see “Mirror Image Training on CNN,” in *Devost.net*. 20 May 2005, at <<http://www.devost.net/2005/05/20/mirror-image-on-cnn/>>, (accessed 10 March 2011). Mirror Image statistics provided by Betty O’Hearn on 10 March 2011 during a telephone conversation.
 19. The AGI website is at <<http://www.agi3.com/>>. *Disclosure: The author has been contacted by AGI in the recent past concerning providing consulting services for Mexican cartel immersion training and other professional activities.*
 20. See “Chapter 6: The Red Team: Developing an Adversarial Perspective,” Stephen Sloan and Robert J. Bunker, *Red Teams and Counterterrorism Training* (Norman, OK: University of Oklahoma Press, 2011).
 21. This insight comes from lessons learned from the National Training Center (NTC), Fort Irwin, California, when unit commander’s rotated against the Krasnovian (OPFOR) armoured forces sought to defeat them on their own turf.



DefenseImagery.mil photo 050617-F-MN103-007 by Staff Sergeant Suzanne M. Day.

A USAF EOD team and US Army soldiers inspect a suicide bomber’s detonated vehicle in Tuz, Iraq, on 17 June 2005, during Operation Iraqi Freedom.



An attachés work can be quite varied. Here, Colonel Chris Kilford and Ambassador John T. Holmes plant a tree on the Gallipoli Peninsula in Turkey.

THE EARLY YEARS – A SHORT HISTORY OF CANADA’S DEFENCE ATTACHÉ PROGRAM 1945-1965

by Christopher Kilford

Introduction

At present, 30 Canadian Defence Attachés are deployed in Canada’s Embassies and High Commissions around the world, and, quite often, these senior officers are the only visible representation of our military in the countries in which they serve.¹ Their responsibilities are also wide-ranging. Foremost is keeping National Defence Headquarters (NDHQ) up-to-date with respect to security and defence issues in their countries of accreditation and cross-accreditation. In essence, they observe and report. Attachés also provide support to Canadian Forces operations including over-flight clearances, assistance during evacuations and humanitarian operations, and giving advice when major deployments are about to occur. They also manage military bi-lateral assistance programs, and, from time-to-time, assist Canadian defence manufacturers in marketing their products. Attachés also represent Canada at numerous events and commemorative ceremonies. Lastly, the provision of sound military advice to the ambassador is essential, and, as such, the attaché must fully understand

the strategic environment. A certain degree of ease in the local language never hurts, either.

The usefulness of having military attachés can be traced back hundreds of years to a time when officers were attached to foreign militaries, usually during operations, to learn about new weapons and tactics. “It was during the nineteenth century,” wrote J. Mackay Hitsman and Desmond Morton, “that the role of the military attaché reached its highest estate. With the art of war being transformed by the impact of technology, it was the military attaché, at embassies and with armies in the field, who transmitted the new doctrines of strategy and tactics to their fellow professionals.”² In particular, they went on to write about Captain Herbert Thacker, Canada’s first defence

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attaché, who was attached to the Japanese Army during the Russo-Japanese war.

But what about Canada's defence attaché program today? How did Canada go from sending Captain Thacker overseas in 1904, to the attaché program currently in being? Indeed, between 1904 and 1945, apart from service advisors in London and Washington during the Second World War, Canada did not have an attaché organization. Herein, I will answer the questions posed above, discussing the first tentative steps taken in the post-war period to establish an attaché network, and why, the initial resistance encountered in some quarters to having attachés serve abroad, and how, by 1965, the attaché program found itself on firmer ground.

“As previously mentioned, during the Second World War, Canadian military officers provided a vital link between the Canadian military and their counterparts in London and Washington on service-related issues.”

the attachés' work.”⁵ When it came to the selection of attachés, the Committee was also clear that not just anyone could do the job. “We consider it of great importance,” they wrote, “that only suitable personnel, who are capable of obtaining intelligence results, should be appointed as attachés, and we recognize the importance of avoiding the appointment of officers by reason only of their seniority of the service concerned.”⁶

In their report, the Committee went on to provide their detailed recommendations as to where they thought Canadian military attachés should be located and why:

The Soviet Union

In view of the obvious importance of the USSR from an intelligence point of view, we consider that all three Services should be represented in Moscow. At the same time, we recognize that from an intelligence point of view more information can frequently be obtained by means of attachés stationed in countries adjacent to the USSR. In recognizing that there should be three attachés in Moscow, therefore, it is to some extent contingent on the opportunities which may arise in the future for stationing attachés in Poland, Czechoslovakia or Yugoslavia. A Military Attaché is already stationed in Moscow. While we realize that accommodation is difficult in Moscow, we nonetheless urge that steps should be taken immediately to appoint an Air Attaché. It is understood that a suitable candidate will be available in the near future. While we also recommend the appointment of a Naval Attaché, it is not considered that the appointment has as high a priority as those of the other two Services. We feel that the Naval requirements might be partially met by an appointment to another country on the periphery of the Soviet Union. It should be noted that the Soviet Mission in Ottawa is considerably larger than the Canadian Mission in Moscow and includes three Military Attachés. We feel that this situation should be stressed when negotiating with the Soviet authorities.

China

We consider that the attaché posts in China are of primary importance from the point of view of information that may be gathered concerning the Soviet Union, although it is recog-



Attachés must be well informed about their host's military forces. Here, Turkish troops march past the reviewing stand during Turkey's annual Victory Day parade.

Why did Canada develop its Attaché Program?

As previously mentioned, during the Second World War, Canadian military officers provided a vital link between the Canadian military and their counterparts in London and Washington on service-related issues. But, as the Cold War commenced, there was recognition in Ottawa that more needed to be done when it came to intelligence gathering; employing military attachés was one way to meet this growing demand for information. As a result, in December 1946, the Joint Intelligence Committee, which included members from the three services, Defence Research, External Affairs and the RCMP, presented their recommendations to the Chiefs of Staff Committee with respect to where they thought defence attachés should be located in future. The Committee began by recognizing that Canada could not hope to compete with the United States and the United Kingdom in the “maintenance of a worldwide network for intelligence purposes.”³ However, they went on to say that Canada still had to make, no matter how small, original contributions in the field of intelligence.

DND photo by Colonel C. Kilford

nized that a study of the Chinese Army is of some importance. There is already a Military Attaché in Nan King, and it is recommended that the post be retained.⁷

France

Paris is at present the most important capital in Western Europe, and as such, is an important centre for the gathering of intelligence concerning Western Europe generally and the Soviet Union. Army and Air Attachés already exist, and we recommend that a Naval Attaché be appointed when available.

Norway

The terrain and climate of Norway are similar to those of Canada. From the point of view of technical experiments, and the problem of defence generally, much may be learned from close association with the Norwegian Services. This is particularly true of the Norwegian Air Force, which is beginning to experiment with flying in Arctic conditions. We recommend therefore that an Air Attaché be appointed to Oslo. In regard to the Navy and Army, we recognize that the Navy should have second priority, should it be desired to appoint a Naval Attaché. We consider, however, that our views in regard to the appointment of attachés in Oslo would change in the event of a Mission being opened in Stockholm, and we recommend that should a Diplomatic Mission be opened there, that the question of attaché representation in Scandinavia generally be reviewed.

Greece

We consider that an attaché of one of the Services should be appointed to the Embassy in Greece. It is considered to be a good listening post for matters concerning the Services of the USSR, and in particular, the Army. We therefore recommend that a Military Attaché be appointed to Greece. In the event of Missions being opened in Turkey, Yugoslavia or Italy, we feel that the question of priorities should be reconsidered, as the Navy and Air Force have considerable interests in the Central and Eastern Mediterranean.

Belgium

The appointment of a Military Attaché to Brussels is recommended, as a temporary measure, pending the opening of a Diplomatic Mission in Prague. We consider that Brussels is conveniently situated to obtain information on the views of the military circles of the small Western Powers, in particular, vis-à-vis the Soviet Union.

Mexico

Mexico is steadily developing, both as a military and a civil air power, and most of the active members of the Armed

Forces are tending to concentrate their attention upon developments in the air. Mexico is spending proportionately a large part of its defence appropriation on air facilities, and from present indications, it would seem likely that this appropriation would increase. We therefore consider that an Air Attaché should be appointed to Mexico.

South America

From a Naval point of view, we consider it is important to appoint an attaché in either Brazil or the Argentine, in view of the comparatively small United Kingdom Naval Attaché representation, the general importance of South America as a whole, and the USSR efforts to gain influence there. From an Air Force point of view, the Argentine is considered the most important of the South American countries. We therefore recommend that an Air Attaché be appointed to Buenos Aires, and a Naval Attaché to Rio de Janeiro.⁸

All told, the Joint Intelligence Committee (besides posts already located in London, Moscow, Nan King, Paris, and Washington) recommended that Canada position two more attachés in the Soviet Union, one more in France, and create new positions in Argentina, Belgium, Brazil, Greece, Mexico, and Norway. In almost all cases, the Committee was preoccupied with the Soviet Union, and what useful information Canada could acquire for itself and its allies.



Turkish M60 tanks drive past during the Victory Day parade.

DND photo by Colonel C. Kilford

External Affairs Weighs in

If Canada was to deploy more attachés around the world, External Affairs was keen to ensure that an agreed-upon terms of reference was in place between itself and the Defence Department. In May 1946, the Acting Under-Secretary of State for External Affairs had already written to the Deputy Minister of National Defence (Army), noting that during the war, "... it was almost inevitable that the Service Attachés at

our Missions should find themselves involved in certain tasks which are normally performed by the diplomatic staff of a Mission.” We were, he added, “very grateful for the assistance which the Service Attachés have, during the war, rendered to our Missions but...the time has now come to define more precisely than hitherto the functions of Service Attachés.”⁹ In his letter, he went on to say:

As I understand it, the purpose in sending a Military Attaché to one of our Missions is to give the Canadian Government a direct source of information concerning the organization, progress, and value of the military forces and military resources of the country to which the Military Attaché is accredited. Any other duties of a social or ceremonial character which a Military Attaché might perform are of secondary importance.

It is, as you say, essential that a Military Attaché should keep himself fully informed on economic conditions and political happenings in the country where he is stationed. Without such knowledge, he cannot properly carry out his duty of interpreting the military efficiency and readiness for war of the country, its preparation for industrial mobilization, and the trend of its military thought. It is therefore important that a Military Attaché should keep in close touch with the political and economic officers of the Mission in order that there should be the maximum exchange of information and opinion on these subjects.¹⁰

By October 1946, External Affairs and the Defence Department had finally agreed upon what would be the very first terms of reference for military attachés. These instructions were wide-ranging, and attachés were warned right from the start that they would need to act “... with the greatest circumspection in order to avoid any suspicion that they are endeavouring to secure secret information through illicit means. Attachés must have no relations whatever with persons acting or professing to act as spies or secret agents.”¹¹ In addition to military matters, they were also told to keep track of economic conditions and political developments, as a comprehensive appreciation of the foreign country’s readiness for war must take account of political stability and industrial strength.¹² Finally, they were directed to stay away of any political, social, and/or religious groups in the host’s armed forces.

While the terms of reference had been agreed upon in Ottawa in October 1946, there was still some way to go in determining where Canada should

place its attachés. As noted previously, the Joint Intelligence Committee made their recommendations in December 1946, but the Chiefs of Staff were not entirely convinced, and External Affairs had some reservations as well. The Joint Intelligence Committee recommendations were considered by the Chiefs of Staff at their 376th meeting, held on 21 January 1947, and it was agreed to approve the plan in principle, but, due to personnel restraints, to hold off on creating new military attaché positions until a later date.

“By October 1946, External Affairs and the Defence Department had finally agreed upon what would be the very first terms of reference for military attachés.”

Lester Pearson, then Under Secretary of State for External Affairs, had his own ideas. As diplomatic missions to Poland and Czechoslovakia would soon be established, he suggested that one attaché for each country be designated, and should proceed at the same time as the ambassador. He questioned the usefulness of having attachés in China, Central and South American countries, and Greece as these posts were considered to be a low priority for him. Pearson also added that as Canada would likely open diplomatic missions in Czechoslovakia, Sweden, Poland, Yugoslavia, Italy, and Turkey in the very near future, the need for attachés for these new posts would have to be addressed.¹³ In March 1947, as the discussion continued as to where best to place attachés, Pearson wrote to the Chief of the Naval Staff regarding a discussion the two had held on the appointment of a Naval Attaché to Warsaw. “I am,” he said, “most anxious that we do not create the impression that we are appointing diplomatic missions to various countries abroad for the sole purpose of gathering intelligence. You will note that I have suggested to the Chairman of the Joint Intelligence Committee that it might be more appropriate if they considered the desirability of appointing a Naval Attaché to Stockholm when a diplomatic mission is set up.”¹⁴



DND photo by Colonel S. Lescaulte

Attachés have numerous opportunities to visit the armed forces of their host countries. Here, attachés accredited to Turkey go aboard the Turkish frigate TCG *Fatih*.

As the Canadian government continued to wrestle with where best to establish diplomatic representation in the post-war period, the Joint Intelligence Committee did its best to keep up. In July 1947, and in response to the government's plan to open embassies in Poland, Sweden, Norway, Denmark, Yugoslavia, and Turkey, the Committee made a new set of recommendations to the Chiefs of Staff:

That a Military Attaché be appointed to Warsaw: The Polish Army is being re-equipped with Soviet equipment and is being organized and trained largely on the Soviet pattern. There are also a considerable number of Soviet officers operating with the Polish forces. In addition, therefore, to reporting on the Polish Army itself, considerable information should be available as to Soviet training methods, organization and equipment. It seems reasonable to expect that more information concerning the Soviet Army would, in fact, be obtained in Poland than could be obtained in Moscow itself.

That an Air Attaché be appointed to Stockholm: Since local administrative conditions preclude the appointment of more than one Service Attaché, it is considered that an Air Attaché should be appointed, for the reasons stated below, although it is noted that the Canadian Army is vitally interested in studying the operations of the Swedish Army in Arctic conditions. Sweden has extensive scientific research and developmental facilities and is emphasizing the study of nuclear physics and aeronautical research at the present time. With the exception of Great Britain, France and the Soviet Union, Sweden has the most active Air Force of any other European nation at the present time. There would be opportunities for the study of the operation of the Swedish Air Force in Arctic conditions. The most recent appreciation of the Joint Intelligence Committee of the possible scale of attack against the North American continent by the Soviet Union concludes that an attack across the polar cap would be the most feasible route by the end of the next ten years. In these circumstances, the study of flying conditions in northern Sweden, which would be similar to the conditions under which the forces of the Soviet Union would have to operate, makes the appointment of an Air Attaché of additional importance.

While it is considered that a Naval Attaché should be appointed to Norway and Denmark, no recommendation is made at the present time, as it is unlikely that the Navy will have a candidate available for some time.

That a Military Attaché be appointed to Yugoslavia: The reasons for recommending this appointment are similar to the reasons outlined in the case of Poland.

That a Naval Attaché be appointed to Turkey: The Turkish Navy at present consists of 1000 officers and 15,000 ratings, and it is being rapidly expanded. In addition, the Soviet Black Sea Fleet is of considerable importance, and from its composition it would appear that the USSR visualizes its eventual use in waters beyond the Black Sea. The importance, therefore, of the maintenance of the status quo in the Dardanelles is substantial from a naval point of view. However, it might be of interest to note the relative strength of the three Services in Turkey: Army – 489,000, Security Troops – 47,000, Air Force – 26,000, and Navy – 16,000. In view of this, and the fact that the defence of Turkey, and therefore, the defence of the strategic land-bridge between Europe and the Near-East, is largely the responsibility of the Turkish Army, the Canadian Army has a pronounced interest in Turkey. However, although Turkey's strategic position would justify the appointment of Naval, Military, and Air Attachés, the initial size of the diplomatic Mission at Ankara would limit, at the outset at least, the number of Attaché appointments to one. In the circumstances, it is considered that a Naval Attaché to Ankara should be appointed, although the equal priority of military and air interest is recognized.¹⁵



Attachés are often called upon to take part in ceremonial events. Here, former defence attaché to France, Colonel Christian Rousseau, with Minister of National Defence Peter MacKay, lay a wreath at Vimy Ridge.

In response to these recommendations, Ottawa opened several new attaché posts in Eastern Europe, and soon gained a better appreciation of the work being carried out and its overall usefulness. Indeed, in April 1950, Brooke Claxton, then-Minister of National Defence, wrote to the Cabinet Defence Committee with a new set of recommendations. In particular, he sought their approval for a number of changes as to where

attachés were employed, because it was becoming clear to him that Canada needed to further increase its knowledge of the Soviet Union and its satellites. Moreover, he stressed the need to provide allies with "... a Canadian pool of information so as to provide some basis for exchange," while also being able to give an "independent Canadian assessment of the validity of United Kingdom and United States intelligence."¹⁶ The minister's recommendations regarding the future employment of attachés were based upon an assessment carried out by the military in which they focused on the importance of having attachés in the Soviet Union and its allies:

The Soviet Union

The quantity of information emanating from the Service Attaché in Moscow is admittedly small. However, since the overall information available is comparatively scanty, what is obtained from this source is relatively significant. Furthermore, the Service Attaché in Moscow acts as a member of the U.K. U.S. Canadian team, and both contributes to and draws from the joint pool of information. Since the number of Service Attachés which these other countries can have in Moscow at any one time is limited, the presence of a Canadian Service Attaché is more important than would otherwise be the case. The information obtained is normally the result of personal observation including such photographs of May Day and other parades as can be obtained. It is particularly important, therefore, for each Service to have its own representative in Moscow, since the Air Force cannot observe satisfactorily for the Army, or vice versa. Accordingly, it is proposed that a Military Attaché be appointed to Moscow in addition to the present Air Attaché.

Poland

Poland is significant for the following reasons: It is strategically located on the main military route of approach to Western Europe, and it faces Southern Sweden across the Baltic. A major change of disposition, or a build-up of the Soviet forces in this area, may therefore be highly significant. Polish travel restrictions are not as severe as those in effect within the USSR, and Service Attachés can travel about the country and observe both the Soviet and Polish Armies and the Polish Air Force. Poland possesses the largest satellite air force. While its present combat capabilities are meager, it has very close ties with the Soviet Air Force, and is based on the USSR model in respect of organization, tactical doctrines and equipment. The Military Attaché in Poland has been successful in obtaining intelligence on the Soviet Army, of value from the U.K. and U.S. as well as from the Canadian point of view, and the post is considered to be a valuable one for the Army. It is felt that the importance of Poland warrants the addition of an Air Attaché, and that this would materially increase the amount of intelligence coming from this country.

Czechoslovakia

Czechoslovakia is technically the most advanced and developed ally of the USSR. The organization of its forces, the extent of Soviet control, and the distribution of its arms products are all important. This post not only provided useful Service intelligence on Czechoslovakia, but with a considerable amount of intelligence on other satellite countries and the USSR. Security measures are less effective than in most countries dominated by the Soviets, resulting in additional sources of information and relatively unrestricted travelling opportunities. The information received from the Air Attaché has been generally of high quality and considerable in quantity. The Czechoslovakian post is considered sufficiently important and useful to warrant an Assistant Military Attaché, in addition to the present Air Attaché.¹⁷



Legion magazine archives

General Jean Victor Allard as a brigadier-general. He was Canada's Military Attaché in Moscow from 1946 to 1948.

The Need for Attachés – Some Skepticism in External Affairs

When it came to positioning even more attachés in the Soviet Union, there was a high degree of skepticism in External Affairs. Pearson was not entirely sure if Brigadier-General Jean Allard, the attaché in Moscow from 1946 to 1948, had provided anything of worth.¹⁸ J.W. Holmes, Chargé d'Affaires in Moscow, also had "... grave doubts about the value of having a Service Attaché of any kind in Moscow.

There has been little enough for a Service Attaché to do in the past, without resorting to methods which could compromise his Government.”¹⁹ L.D. Wilgress, the former Ambassador in Moscow, also took the opportunity, in early-1948, to weigh in on the usefulness of having military attachés in Moscow. He wrote to Escott Reid at External Affairs that “... not only is it useless to have Service attachés in Moscow because there is nothing for them to do, but it is positively dangerous and the chances are very grave that sooner or later we will be involved in some international incident.”²⁰ “This is particularly the case,” he continued:

...because the Defence Department stubbornly refuse(s) to believe our representatives, who really know Russia, and contend that if they send the right man he will find work to do in Moscow. This means that there is a grave danger that he will do something which, sooner or later, will get us into trouble. Finally, and not unimportant, is the fact that it is very disturbing to the morale of our staff at Moscow to have Service attachés hanging around with nothing to do. I thought it was my duty to warn you so that perhaps before the men leave for Moscow, they will be cautioned not to do anything which will result in an international incident. This, at least, will serve to absolve our Department from failure to realize the risks we are running in sending to Moscow, men who impress me as being “babes in the woods.”²¹

Although the former Ambassador’s comments were quite strong, the value of attachés gained ground over the next ten years, and in June 1959, the Under-Secretary of State for External Affairs wrote to General Foulkes about repositioning attachés, so that one could be appointed to New Delhi, and one to Karachi, with cross-accreditation to Tehran. It was noted that India, Pakistan, and Iran were becoming more and more strategically important, and that the militaries in India and Pakistan were now political actors in their own right. There was also concern about the growing influence of the Soviet Union, especially its arms sales to India. In an attempt to convince Foulkes either to reposition attachés, or add two more to the attaché establishment, the Under-Secretary wrote:

The change of government in Pakistan last autumn has meant that the country is now under a benevolent military government. The views of Pakistani Service officers about the way the government should be conducted in that country are of prime importance in the formulation of Pakistani policy. A Service Attaché in Pakistan would assist considerably our contacts with Pakistani officers.

The influence of the Indian Chiefs of Staff in Indian government policy is increasing, particularly in the formulation of financial policy in so far as it is related to foreign expenditures for defence purposes. These expenditures, as you know, are substantial. A Service Attaché in New Delhi would make it possible to develop close contacts with Indian officers.

The USSR is trying to tie Indian defence expenditures to the purchase of Soviet equipment. If the USSR is successful, it would greatly facilitate the spread of Soviet influence in India. Indian officers would be drawn away from Western influence. This would be a serious reverse for the non-communist countries and the West generally.

Canada is regarded in India as one of India’s closest friends in the Commonwealth, and in the West. The policy of the Canadian government which has been designed to foster this belief is offset in Service circles in India by the absence of a Service Attaché.²²

In his closing remarks, the Under-Secretary warned Foulkes to consider the request to add two more attachés seriously. “I should not like to see the proposal turned down again,” he wrote, “on a refusal to contemplate an increase in the size of the establishment.”²³



Troops from Azerbaijan undergo basic communications training prior to their deployment to Afghanistan.

DND photo by Colonel C. Kilford

Conclusions

If Foulkes, and, no doubt, his Service Chiefs, were reluctant to send more attachés overseas, some in the military were interested in moving forward. In early-1961, for example, a sub-committee of the Vice Chiefs of Staff Committee prepared a report on what support attachés might render the Government in furthering arms sales. The discussion centered on a memorandum received from the Deputy Minister, who requested the Committee consider having attachés engage in “periodic

exchanges of information on potential equipment sales possibilities” with Defence Production officers.²⁴ The Canadian Army, however, had already instructed their attachés to do their utmost to support arms sales. In fact, they were told that they were “in an excellent position to further the aims of this program in their countries of accreditation and should enthusiastically assist the Trade Commissioner.”²⁵

For External Affairs, the deployment of military attachés, offers of military assistance and arms sales were seen in the post-war period as a means to increase Canada’s international stature. But while External Affairs might have recognized the growing need for attachés, the military believed that satisfying their commitments to NATO, and later NORAD, to be higher priorities. As far as the military was concerned, sending a colonel overseas was an expensive proposition in a time when defence budgets were coming under closer scrutiny. Nevertheless, by 1965, and despite inter-departmental wrangling, attaché posts (excluding London and Washington) were established in Belgium, Czechoslovakia, Egypt, France, Ghana, Germany, India, Italy, Israel, Japan, the Netherlands, Norway, Pakistan, Poland, Sweden, Turkey, the Soviet Union, and Yugoslavia.²⁶ Some 45 years later most of these attaché

posts are still operating, while a few have moved on for various reasons. More importantly, new posts have been added, especially in Asia and the Americas, as successive Canadian governments responded to the changing strategic environment.

In this day and age, defence attachés, like their predecessors, are highly experienced individuals with a wide-ranging knowledge of military, national and international affairs. They are on call 24 hours a day, and, with their spouses, they take part in a very demanding social life, representing Canada during numerous public occasions. A key strategic asset for the Canadian Forces, Canada’s military attachés also provide policymakers in Ottawa with time-sensitive, valuable information about day-to-day and long term issues in their countries of accreditation and cross-accreditation. In the current strategic context, their presence on the ground in such places as Beirut, Egypt, Libya, Mali, and Turkey has proven invaluable in formulating Canada’s response to frequent international crises. No doubt, those who drafted the first terms of reference for Canada’s defence attachés in 1946 would be pleased to see how far the program has progressed.



NOTES

(All classified sources have since been declassified – Ed.)

1. The 30 Attachés, mostly all colonels, cover 132 countries. They are supported by sergeants (administrative assistants), and sometimes by a second officer. Many countries have employed military attachés long before Canada’s program commenced. For example, Mustafa Kemal Atatürk was appointed as the Turkish military attaché to Bulgaria in 1913.
2. J. Mackay Hitsman and Desmond Morton, “Canada’s First Military Attaché: Capt. H.C. Thacker in the Russo-Japanese War,” in *Military Affairs*, Volume 34, Number 3, October 1970, p. 82. Thacker, an artillery officer, rose to become Chief of the General Staff from 1 June 1927 until 31 December 1928.
3. Canada, DFAIT, Memorandum, “Secretary, Joint Intelligence Committee to the Secretary, Chiefs of Staff Committee,” 14 December 1946, 1. Documents on Canadian External Relations (DCER), Vol. 12 – 11, Chapter 1 (DEA/50037-40, Secret, Conduct of External Relations), Part 1, Section B – Administration, Military Attachés.
4. *Ibid.*, p. 1.
5. *Ibid.*
6. *Ibid.*
7. Given that this report was written in late-1946, I am assuming that the attaché in China deployed in 1946 in support of the Nationalist Chinese government to which Canada was supplying large amounts of military equipment. For more information on Canadian arms sales and military assistance during this period see: C.R. Kilford, *The Other Cold War – Canada’s Military Assistance to the Developing World 1945-1975*. Kingston, Canadian Defence Academy Press, 2010.
8. Canada, DFAIT, Memorandum, “Secretary, Joint Intelligence Committee to the Secretary, Chiefs of Staff Committee,” 14 December 1946, 1. Documents on Canadian External Relations (DCER), Vol. 12 – 11, Chapter 1 (DEA/50037-40, (Secret), Conduct of External Relations), Part 1, Section B – Administration, Military Attachés.
9. Canada, DFAIT, Memorandum, “Acting Under-Secretary of State for External Affairs to the Deputy Minister of National Defence (Army),” 14 May 1946, 1. DCER, Vol. 12 – 8, Chapter 1 (DEA/50037-40, (Confidential), Conduct of External Relations), Part 1, Section B – Administration, Military Attachés.
10. *Ibid.*, p. 1.
11. Canada, DFAIT, Dispatch, “Secretary of State for External Affairs to Chargé d’Affaires in China” 30 October 1946, 1. DCER, Vol. 12 – 9, Chapter 1 (DEA/50037-40, (Secret), Conduct of External Relations), Part 1, Section B – Administration, Military Attachés.
12. *Ibid.*, p. 1.
13. Canada, DFAIT, Memorandum, “Secretary, Chiefs of Staff Committee to the Secretary, Joint Intelligence Committee,” 25 January 1947, 1. DCER, Vol. 13 – 5, Chapter 1 (DEA/50037-40, (Secret), Conduct of External Relations), Part 1, Section B – Administration, Military Attachés.
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16. Canada, DFAIT, Memorandum, “Minister of National Defence to the Cabinet Defence Committee,” 21 April 1950, 1. DCER, Vol. 16 – 9, Chapter 1 (PCO, Cabinet Document D246, (Secret), Conduct of External Relations), Part 1, Disposition of Service Attachés.
17. *Ibid.* Annex A, 21 April 1950, Service Attaché Requirements.
18. Canada, DFAIT, “Extract from Minutes of Meeting of Chiefs of Staff Committee,” 1948, 1. DCER, Vol. 14 – 8, Chapter 1 (DEA 226 (S), (Top Secret), Conduct of External Relations), Part 2, Section B – Service Attachés in the Soviet Union. Brigadier-General Allard went on to become the Chief of Defence Staff between 1966 and 1969.
19. Canada, DFAIT, Letter, “Chargé d’Affaires in Soviet Union to Assistant Under-Secretary of State for External Affairs,” 18 March 1948, 1. DCER, Vol. 14 – 12, Chapter 1 (DEA 291 (S), (Secret), Conduct of External Relations), Part 2, Section B – Service Attachés in the Soviet Union.
20. Canada, DFAIT, Letter, “Delegate to Preparatory Committee of International Refugee Organization to the Assistant Under-Secretary of State for External Affairs,” April 1948, 1. DCER, Vol. 14 – 13, Chapter 1 (C.H. Vol 27, Conduct of External Relations), Part 2, Section B – Service Attachés in the Soviet Union.
21. *Ibid.*, p. 1.
22. Canada, DND, Letter, “Under-Secretary of State for External Affairs to the Chairman, Chiefs of Staff,” 24 June 1959 (Ottawa, DND, DHH, Box 209, File 425, Service Attachés, 2-4). The Chiefs of Staff had considered an earlier request by External Affairs in January 1959 to position an attaché in New Delhi and one in Karachi but had rejected the proposal.
23. *Ibid.*, p. 4.
24. Canada, DND, “54th Meeting of the Vice Chiefs of Staff Committee,” 23 May 1961, p. 2. (Ottawa: DND, DHH, Series V: Vice Chiefs of Staff Committee, Box 26, File 8).
25. *Ibid.*, p. 2.
26. With regard to these posts, General Foulkes wrote in 1958 that each one had been broadly classed as either an intelligence post or a representational post. In this latter category were Belgium, France, Italy and the Netherlands. However, he did acknowledge that even in these posts useful intelligence information could be obtained. See: Canada, DND, Letter, “Chairman, Chiefs of Staff to the Minister of National Defence,” 8 December 1958 (Ottawa, DND, DHH, Box 208, File 424, Service Attachés, p. 1.



Bombardment of Fort Detroit, 1812, by Peter Rindlisbacher.

GENERAL WILLIAM HULL'S TRIALS – WAS THIS EARLY-PTSD? ONE POSSIBLE EXPLANATION FOR THE UNPRECEDENTED SURRENDER OF DETROIT, 1812

by Joseph Miller

Introduction

William Hull was the obvious choice to command the Northwest Army's invasion of Upper Canada at the outset of the War of 1812, due to his heroic service during the American Revolution. His daughter Maria Campbell's biography of his service in the Revolutionary War is filled with praise from fellow veterans. George Washington even took notice of Hull's excellent service, and requested that he change regiments in order to be promoted more expediently. He rose from the rank of captain to full colonel because he consistently held his position with ill-trained Continentals and militiamen against larger formations of British regulars. But his command during the early portions of the invasion of Upper Canada in 1812 would not be laudable.

Hull's leadership may have been seriously questionable at Detroit, but the character of William Hull and his selection to command was obvious. The proceedings from his subsequent trial are exhaustive. Hull faced charges of treason, cowardice, neglect of duty, and un-officer-like conduct, but was only acquitted of treason.¹ A month after the trial,

Joseph Miller, a former U.S. Army infantry officer, served in various capacities and completed three deployments to Iraq in support of national elections, and as an Iraqi Army advisor during the 2007 troop surge. He was injured by an IED during his second rotation, but remained in full capacity for two years until leaving active duty for health reasons. His awards include the Bronze Star medal, the Combat Infantryman's Badge, the Iraqi Campaign medal (three service stars), the Senior Parachutist Badge, and the Ranger Tab. He is currently completing postgraduate studies in Canadian/American History at the University of Maine, with plans to defend his MA Thesis this fall.

President James Madison spared his execution with one simple sentence. “The sentence of the court is approved, and the execution of it is remitted.”² Even with compelling and objective evidence, it was difficult to apply the full weight of the law. It appeared to be, on one hand, as impossible to execute Hull as it was to believe that his actions were anything but cowardice. Without the benefit of contemporary psychological methods, it would be impossible to truly rationalize the fall of Detroit unless President Madison recognized Hull’s condition on a subconscious level.

First, it is important to explore the idea of a subconscious knowledge of Posttraumatic Stress Disorder (PTSD). The absence of a specific dialogue in the historical record may seem disheartening, but it would be impossible to assume that veterans of the fighting wars in the Early Modern Period were not subject to such a condition. Hull’s life was a chilling, telling, and extremely public example of one veteran’s story. The trial confirmed his poor performance at Detroit as being unmistakable, and yet, the memory of his previous service was completely absent from its dialogue. His daughter’s book was the one solitary positive biography of Hull’s life, and it only described his service in the Revolutionary War. It would be impossible for observers to remember this soldier’s valour and his negative impact in one single narrative. The two must remain separate in collective memory. Hull even displayed a complete inability to rationalize his own poor performance with his exceptionally well-articulated defence, and with the argument championed in his memoirs.



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Surrender of Hull, by Augustus Robin.

Recent Terminology, Old Condition?

It is often viewed that PTSD is a 20th Century paradigm. Esteemed British psychiatrist and historian Simon Wessely described the historical development of theories for the causes, diagnosis, and treatment of the condition now known as PTSD in his article, *Twentieth-Century Theories on Combat Motivation and Breakdown*. ‘Shell Shock’ was seen as a condition synonymous with trench warfare during the First World War.³ It was supposedly caused by a lack of moral fortitude and physical ability, but innovations in selection criteria for Second World War soldiers did nothing to slow the onset of Combat Fatigue/Shell Shock.⁴ Wessely concluded: “Selecting the ‘right stuff’ at induction did not prevent psychiatric casualties, but did create a serious manpower shortage.”⁵ His article recognized the incorrect categorization of Shell Shock cases from their first recognition during the First World War until the present day, but he does not offer a definitive conclusion or a simple cause. If Shell Shock was so misidentified and poorly understood at its inception, why is the First World War still viewed to represent the origin of PTSD? In fact, little work has been done to identify cases of PTSD that precede the 20th Century, and it is most likely that psychiatric cases relating to combat stress would have had more effect on the unaware.

Professor of History at Indiana University Lynn A. Struve published a recent article in the *Journal of History and Memory* entitled, “Confucian PTSD: Reading Trauma in a Chinese Youngster’s Memoir of 1653.” She described a boy’s struggles in feudal society and the resulting psychological trauma. The work illustrated an intellectual period similar to modernity. This allowed the author of the *Yusheng Lu* to break from common Confucian thought and express his own family’s loss. She concluded, “... what reads in the bleak central sections of the memoir as a repeated cry of failure re-reads, in view of the unfolding of Maozi’s self-therapeutic scenario, as a rhythmic evocation.”⁶ This described both the trauma and the cathartic process of retelling the events in an appropriate manner. The memoir was unique, “...in its blatancy of self-revelation about direct experience and willingness to give absurdity full rein in certain sections.”⁷ Struve avoided issues of ‘periodization,’ and tried to view this period following the Great War in its own temporal sense, urging scholars to look at similar instances to challenge “...[our] assumptions about the recentness of certain phenomena, such as traumatic memory and PTSD, in human history.”⁸

Psychologists and psychiatrists may incorporate simple cowardice in their definition of severe anxiety disorders, and some may maintain that anything less is illogical in the presence of great danger, but this view would generally be considered intolerable *for* and *to* a military officer. Regardless, the commander of the Northwest Army was no coward. William Hull fought through “the times that tried men’s souls” at Trenton and Princeton, and his leadership was instrumental to the Continental Army’s victory at Saratoga.⁹

Revolutionary Services and Civil Life of William Hull was the collection of Hull’s writing, as edited and completed by his daughter Maria Campbell. In his youth, he was sent to labour

on his grandfather's farm, and his daughter casts a glimpse into the sorrow that would temper his latter endeavors.

Residing on a farm, he worked daily in the fields, and here he acquired that taste for agricultural pursuits, which was his solace, when the dark and heavy clouds of adversity gathered thickly around the gray hairs of declining years.¹⁰

Hull's love of labour at such an old age points to two specific symptoms of PTSD. The first was simple avoidance behavior. Farming and working the land had no resemblance to combat, and it most likely would only trigger memories of his contented youth prior to any emotional trauma. Second, the *Diagnostic and Statistical Manual Version Five (DSM-V)* used by psychologists to diagnose mental disorders) describes one symptomatic response of PTSD as "... pervasive negative emotional state. For example: fear, horror, anger, guilt, or shame."¹¹ This may appear to be disconnected without a closer look at negative emotions, but ceaseless energy or jitteriness is often the only visible characteristic of this pervasive negative emotional state. Maria Campbell's understanding of the solace her father needed in his elder years represented a family member's anguish, and his use of vigorous labour, despite his old age, appears to be the need to manage such a pervasive affliction of negative emotions. This solace and resulting restlessness visible by ceaseless effort despite "his gray hair" were most likely caused by his presence on the bloodiest battlefields of America's inception.

Two researchers, Dr. Emily Ozer and Dr. Daniel Weiss, published an extremely brief article entitled, "Who Develops Post Traumatic stress Disorder?" for the Association for Psychological Research. Their three-page summary provides the biological factors that contribute to PTSD, the leading theories, and a short compilation of the most consistent traumatic experiences suffered. Symptoms of PTSD arrive when the hypothalamic-pituitary-adrenal axis becomes overly sensitive.¹² This is a clinical way to say that the brain loses its ability to manage the hormones that regulate fear, or, more specifically, adrenaline. Theories relating to the severity of the experience, the lack of support among victims' immediate family/peers, and the duration/regularity of traumatic experience or experiences are obvious factors, but they are overshadowed by one major factor. Ozer posited: "The strongest predictor was peritraumatic dissociation. This refers to unusual experiences during and immediately after the traumatic event, such as a sense that things are not real, the experience of time stretching out, and an altered sense of self."¹³

Emotional events like this are seemingly impossible to qualify, but there was consistent awkward inclusion of one event surrounding Hull's performance during the Revolutionary War. This points to one possible dissociative reliving in Hull's memory; the duty of securing prisoners, removing dead bodies, and attending to the wounded behind Benedict Arnold's final assault at Saratoga. Less than a month prior, Hull had led a charge at Freeman's Farm. This action placed his men on top of the bodies of British soldiers killed by his own orders. It would be more difficult to believe that such service *would fail* to cause a peritraumatic dissociative event than it would be to



William Hull by James Sharples Senior, from life, c. 1795-1801.

Independence National Historical Park

assume that it *would do so*. Could a human being's subconscious withstand the direction of such a charge, and, less than a month later, preside over the bodies of another battlefield?

Maria Campbell's work is most commonly published with James Freeman Clarke's account of Hull's failure during the War of 1812. Their appendix is filled with letters written by men who could not logically rationalize Hull's Revolutionary War performance with his absolute failure at Detroit. One such letter created a pregnant pause to describe Hull's demeanor on a battlefield littered with dead bodies. Seth Bannister, an eventual colonel and a Revolutionary War colleague of Hull writes:

It is sufficient for my purpose on this occasion, to notice particularly the capture of Burgoyne (Saratoga), and the well known battle of Monmouth. In these two memorable events, where the ground was covered with the dead bodies of the slain, and the air resounded with the groans of the dying, Hull was unshaken. He bravely fought, and a grateful country acknowledged his bravery... Having associated with him in times so interesting, and in no other character than that of a brave man, I shall be unhappy to learn that he has terminated his patriotic career by meanly acting the coward.¹⁴

Bannister recognized the abject horror of the aftermath of the Revolutionary War era battlefields. To some, Saratoga and Monmouth were only important if they inspired a Declaration of Independence or an alliance with France, but for men like Hull and Bannister, these were traumatic images burned into their psyche permanently. And they would, in all probability, have produced lasting impacts.

Hull's Revolutionary War experiences may clearly indicate events that would cause anyone a life of nightmares and constant anguish, but that fails to illustrate problems that would have led to his capitulation of a superior force at Detroit. The first reference is an obscure Michigan Territory Supreme Court request to President James Madison for the impeachment of then-Governor William Hull. Disagreements regarding a fine levied upon an official named John Whitfield encouraged Governor Hull to usurp the Constitution and to remit the fine by executive orders.¹⁵ A fine of fifty dollars was, no doubt, significant during the early-19th Century, but it was certainly a fee absorbable for a public figure. During this disagreement, Hull publically called Supreme Court Judge Augustus Woodward "a damn'd rascal," and completely exceeded his own powers in a clearly personal battle between him and the Michigan Supreme Court.¹⁶ Hull's anger with the court's actions was obvious, but his insistence that a minor fine be remitted at great risk to his own position appears to have demonstrated two symptoms of PTSD. One is simple irritability, and the other is "reckless or self-destructive behavior." Both exist in the DSM-V in the E section, categorized as, "... alterations in arousal and reactivity that are associated with the traumatic event(s)."¹⁷ This court action, coupled with Maria Campbell's description of her father's ceaseless gardening, could be construed as evidence of symptomatic responses to PTSD. His actions during the invasion of Upper Canada would be the most extreme, and their severity will illustrate his condition when his civil life fails to provide examples.

Robert Lucas, an eventual governor, was known for his resourcefulness and calm, and he served as a general under Hull during the War of 1812. Lucas's journal, which played largely in the court martial proceedings drawn up against Hull, was a good example of the Northwest Army's disdain for William Hull, and he unknowingly revealed the best example of Hull's psychological breaks from reality. It is clear that Lucas himself disdained the actions of Hull, specifically because his wariness cost the life of Lucas's dear friend Captain William McCollock, but he was also privileged to witness some clearly-irrational orders from Hull. When describing the period directly following McCollock's death, Lucas cites the following guidance from the general.

During the above periods Gnl Hull requested of me and Capt Knaggs to attempt to take Tecumseh the Indian chef he recommended us to disguise ourselves and to go among the Indians at Maldon. I was willing to do anything I was ordered but not to act foolishly, had we made the attempt agreeable to his plan we would be both take, instead of taking Tecumseh, perhaps that was his wish—(sic)¹⁸

General Hull had previously been the Chief of Indian Affairs and the governor of a frontier state. The years that he spent interacting personally with tribal chiefs would brand the idea of a European 'painted red' as being absolutely absurd, and it would be hard to assume that this order was anything but a break from reality on Hull's part.

Upon the surrender of Detroit, Hull sent a letter to William Eustis, the American Secretary of War for the first six

months of the War of 1812, that described British superiority, and this became evidence to his contemporaries that Hull's actions were a product of treason. Eventual governor and senator for Michigan Brigadier General Lewis Cass's letter to William Eustis on 10 September 1812, as well as the testimony of every one of Hull's subordinates at his trial, completely refuted every one of the general's inferences and rationalizations of British superiority. Hull was simply wrong, and he could not mentally grasp the presence of anything but a superior enemy force. The DSM-V outlines "Negative alterations in cognitions and mood that are associated with the traumatic event(s) (that began or worsened after the traumatic event(s))."¹⁹ It specifically states: "... [that] 'the world is completely dangerous'" as an example of "Persistent and exaggerated negative expectations about one's self, others, or the world."²⁰ The brain's inability to regulate adrenaline creates a state of constant, pervasive fear, thus leading an individual to envisage villains to justify such an emotional outlook. The *younger* Hull clearly managed to face down even superior enemy forces, but the *older* man held exaggerated beliefs with respect to his opponents, which were in complete opposition to the logic of all his subordinates.



Portrait of (Tecumtha) Tecumseh (c. 1808), by John Benson Lossing.

Hull's fears of Natives were much greater than those of his subordinates, but they fail to connect to the commonality of such exaggerated fears with PTSD sufferers. Hull's view of Natives was such that they were clearly villainous. His portrayal of the Native tribes around him was that they completely surrounded him, and that all his lines of communications were cut off. Hull believed that the capture of Fort Malden severely weakened his position at Detroit, and not the

Courtesy of Toronto Public Library



The Meeting of Brock and Tecumseh (Lorne K. Smith Collection).

physiologically impossible for his brain to manage the chemicals that regulate fear. James Freeman Clarke, Hull's son-in-law, also described Hull's ceaseless energy despite his old age, as this "... white-haired old man, living in the midst of children and grandchildren; employing in the peaceful pursuit of agriculture the last years of his life." He further described the duality of Hull's experience:

*All outward disgrace seemed to have fallen upon his head, yet all were borne with cheerful equanimity. A soldier, he had been branded as a coward; a patriot, he was esteemed a traitor; loving the approbation of his fellow-men, he was an object of universal censure; naturally fond of public life, and ambitious of public usefulness, he was under a sentence of irrevocable ostracism.*²⁵

simple fact that the British were landing small incursions in his rear to harass his supply lines, and that, on most occasions, his opponents were defeated. In fact, Hull inadequately manned a movement south that resulted in a defeat at Brownstown, and he subsequently used the incident to justify his unprecedented surrender. After the Fourth Infantry's victory at Maguaga, Hull cited mass sickness when only the unit's commander, Lieutenant Colonel James Miller, was incapacitated by sickness.²¹ He further defended his claim that "... the surrender of [the fort at] Michilimackinac opened the Northern hive of Indians, and they were swarming down in every direction."²² Further, that his decision to surrender was influenced by the fact that:

*... the bands of savages which had joined the British force were numerous and beyond any former example. Their numbers have since increased, and the history of the Barbarians of North Europe does not furnish examples of more greedy violence than these savages exhibited (sic).*²³

Hull's literal belief was that the North American Tribesmen were both as powerful and as ruthless as the Vikings of Northern Europe. Hull was either a true villain or a victim of a condition that caused "... persistent and exaggerated negative expectations about one's self, others, or the world."²⁴ Had he been such a villain, it is likely he would have been convicted of treason, or even executed. And yet, this still would not explain his previously exemplary performance in the Revolution. Letters defending Hull were utterly divided between his heroic performance in the Revolutionary War, and his shameful leadership of the Northwest Army.

In a sense, Hull was *both* a skilled military leader and a coward; a coward not in a pejorative sense, but simply because his experiences in the Revolution probably made it

Clarke's words illustrate the dual life of the veteran suffering from PTSD.

The letters are a small account of Hull's service, and how different his experiences in 1812. Most letters fail to reconcile Hull's more contemporary failure in the light of his heroic



James Madison by Catherine A. Drinker, after Gilbert Stuart, 1875.



Major-General Sir Isaac Brock, KB (President and Administrator of Upper Canada, 1811-12), by George Theodore Berthon.

Revolutionary experience. His commander, General William Heath, does nothing but praise Hull's performance, even including a letter in his possession from General George Washington requesting Hull's transfer so that he could more expediently be promoted to major.²⁶ He received similar letters from Salmon Hubbell, Francis Tufts, J. Brooks, and Joseph McCaken, all validating Hull's personal courage with complete doubt that he could serve in any manner but brave and

courageous.²⁷ It was only Seth Bannister who appeared to be able to recognize both Hull's courage and his cowardice. But this must have been the reasoning of his conviction.

President Madison could neither commute the sentences by which Hull was convicted, nor allow them to be executed. For it was the inability to rationalize the man who even drew the acclaim of George Washington, yet later, in much less perilous circumstances, presided over one of the most ill-led campaigns in the War of 1812. It was a campaign during which his subordinates called for his court martial, and believed his actions to be so derelict that they were likely treasonous. This could not be explained because the men involved did not intellectually grasp what was happening to Hull. To them, he could only be one or the other, a coward or a hero. There was no recognition or acknowledgement that heroic service in combat was both commendable and emotionally damaging to the psyche of its heroes. Hull's family saw only their vigorous "white-haired old man" toiling away in the field and playing with children, and they could not possibly reconcile that he had led an invasion into Canada that utterly failed, perhaps because of his own inability to manage fear. It may be truly impossible to determine whether PTSD was the cause for Hull's failure, but it provides one possible explanation for Hull's completely changed temperament from the American Revolution to the War of 1812, and it certainly adds greater depth to an analysis of the Battle of Detroit. Regardless, the soldiers of the Northwest Army hated him; veterans of the Revolution loved him. Some things were simply undeterminable to the minds of early-19th Century Americans, including the friction caused by indeterminable chance and its effect upon the Invasion of Canada; friction that, in this case, should not exist today. However, there still remains friction for veterans who have undergone the arduous physical and mental process to culturally be accepted as soldiers, only to one day find their bodies physically incapable of managing fear.



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The Alenia Aermacchi C-27J *Spartan* artist's conception in SAR livery.

FWSAR PLUS: A WAY FORWARD HOW TO EXPAND THE FIXED WING SAR PROJECT INTO A COMPREHENSIVE SOLUTION THAT SATISFIES MULTIPLE OPERATIONAL REQUIREMENTS WITH CANADIAN SOLUTIONS

by Jim Dorschner

"We will continue to provide persistent air control of Canada's airspace and approaches.

- We will ensure our continuing mobility and ability to independently respond rapidly to domestic and international events.*
- We will continue to be interoperable with our allies.*
- We will continue to be expeditionary – at home and abroad.*
- Our operations in the Canadian Arctic will grow in importance.*
- We will continue to provide one of the best search and rescue capabilities in the world."*

Lieutenant-General André Deschamps, 22 March 2012

Introduction

The requirement to replace Canadian Forces (CF) Fixed Wing Search and Rescue (FWSAR) aircraft capability was formalized in 2004, but the project remained more or less stillborn amidst Government confusion concerning the program's scope, which procurement path to take and repeated delays engendered by the pressing needs of combat operations in Afghanistan. Recent developments offer an opportunity to finally advance domestic SAR while adding a slate of new and improved operational capabilities by using a focused mix of aircraft types.

In January 2012, the Government signaled intent to proceed with FWSAR, and in March, Public Works and Government Services Canada (PWGSC) informed the author that, "PWGSC is planning to release the RFP in the Winter 2012/13 time frame." The PWGSC spokeswoman added that

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determination of a revised Initial Operational Capability (IOC) date depends upon “consultation with industry.” If a contract is concluded in 2013, IOC will likely occur in 2016.

FWSAR Plus Concept

With program launch looming, a detailed examination is merited of broader capabilities that can be achieved beyond SAR, and the range of potential solutions. The result is *FWSAR Plus* with two components:

- Reduce the dedicated FWSAR buy from 15 C-27J *Spartans* to ten Canadian-manufactured Q400-based SAR aircraft, to be split between CFBs Comox and Greenwood, with deployments as required to Forward Operating Bases, such as Yellowknife, Goose Bay, and Iqaluit for domestic SAR/Medevac and Arctic/offshore sovereignty surveillance.
- Retire/sell off all remaining H-model *Hercules* transports and procure ten additional new *Hercules*, based on the HC-130J *Combat King* SAR platform now entering service with the US Air Force (USAF), to be split between CFBs Winnipeg and Trenton in aerial refueling and Special Operations / Combat SAR roles respectively, along with domestic SAR response in Central Canada.

Since 2004 the Government, the Department of National Defence (DND), and the RCAF have consistently leaned towards sole-source acquisition of 15 Alenia C-27J *Spartan* light tactical airlift aircraft to replace the current FWSAR fleet of CC-115 *Buffalos* and legacy CC-130 *Hercules*, even as potential competitors EADS CASA, Lockheed Martin, and the Canadian firms Bombardier, Field Aviation, and Viking Air have vigorously promoted alternatives and worked to keep the FWSAR project competitive.



A CC-130 *Hercules* in a maritime setting off Canada's west coast.

Reducing the FWSAR buy from 15 Italian-made C-27J *Spartan* light tactical transports to ten less expensive, but better-equipped and more capable Canadian-built aircraft will expend less than half of the C\$.55 Billion designated for the program. The balance remaining can then be applied towards procuring ten HC-130Js. Given the 17 new CC-130Js already in service with 8 Wing at Trenton, a standardized fleet of 27 multi-mission capable J-model *Hercules* serving alongside ten modern, state-of-the-art dedicated FWSAR aircraft offers enormous operational flexibility, training, and maintenance benefits, along with clear procurement and lifecycle cost benefits.

Additional roles and missions addressed by *FWSAR Plus* range from augmenting the airlift fleet and the long-range patrol aircraft force to aerial refueling and Special Operations Forces (SOF) support. This inherent flexibility enhances overall CF support to increasingly important Arctic operations, and, in the case of new HC-130Js, a range of potential international missions.

Requirements and Contenders

According to the DND FWSAR Factsheet, Canada has one of the most challenging search and rescue environments in the world. It consists of the second largest land mass surrounded by the longest coastline, encompassing an immense area of approximately 18 million square kilometers. The operational environment within the Canadian SAR region ranges from the Rocky Mountains, to vast territorial waters and expansive Arctic tundra, much of it with little infrastructure or population, and subject to extreme weather conditions, including temperatures varying from -50C to +40C.

The DND assumed primary responsibility for Federal aerial SAR across Canada in 1947, which CF assets now provide with augmentation from the Canadian Coast Guard, the Royal Canadian Mounted Police, provincial and municipal police forces, and the Civil Air Search and Rescue Association. Canada's three Joint Rescue Coordination Centres in Halifax, Nova Scotia, Trenton, Ontario, and Victoria, British Columbia annually handle an average of 8000 air and marine SAR cases, with CF aircraft alone conducting over 1000 missions per year. F SAR mission requirements include rapid response to downed aircraft emergencies and distressed vessels, emergency medical evacuation from remote communities, and assistance to provincial and territorial authorities with a combination of helicopters and fixed-wing aircraft. The latter are particularly important, given the vast distances involved.

The RCAF currently designates 13 CC130H *Hercules* and six CC115 *Buffalo* aircraft for FWSAR response. The *Hercules* operate from CFBs Greenwood, Trenton, and Winnipeg, while the *Buffalos* are all based at CFB Comox. Of these, the six *Buffalos* and the *Hercules* at Greenwood and Trenton are dedicated to SAR, with transport as a secondary mission, while the *Hercules* at Winnipeg are predominately employed on airlift and aerial refueling tasks. The *Buffalos* have been in service since the 1960s, while many of the *Hercules* date from the 1970s, and all are now approaching the end of their effective service lives.



Reuters photo RTR2GMVV by Luke MacGregor

An Alenia C-27J *Spartan* landing at the Farnborough Air Show, 22 July 2010.

Reflecting this urgency, a FWSAR Statement of Operational Requirements (SOR) was developed by DND in 2004. Thereafter, momentum began building within the DND and the CF for direct acquisition of C-27Js, based upon their performance and commonality with the RCAF's new CC-130Js. By the fall of 2009, alarmed supporters of a more open competition prompted the DND to request an independent review of the SOR by the National Research Council (NRC). The NRC review, presented to the Government in 2010, focused upon technical requirements and the assumptions and constraints underlying them.

Based upon the NRC review, the SOR was amended to allow for a wider range of FWSAR solutions in competition with the C-27J. Contenders include the EADS CASA C-295, and the Lockheed Martin 'short' *Hercules*. Canadian options include a proposal from British Columbia-based Viking Air for new or refurbished Next Generation *Buffalos* with Pratt & Whitney Canada PW150 engines, new props, and an advanced avionics suite, all borrowed from the Bombardier *Q400* regional airliner. In turn, Bombardier and Field Aviation offer a *Q400* solution, based upon Maritime Surveillance Aircraft (MSA) versions of the *Dash 8* that Field Aviation has produced for multiple customers around the world, featuring integrated sensors, longer range, and in-flight doors permitting the air drop of Rescue Technicians and survival equipment.

In addition to an airdrop capability, the FWSAR mission requires observation windows on either side of the fuselage with corresponding observer seats and an intensive care medevac package. Surveillance system requirements include multi-mode radar and electro-optic day/night FLIR with the ability to downlink imagery, along with a satellite voice and data communications capability and sensor operator/mission manager workstation(s).

An often-understated factor in FWSAR analysis thus far is that modern platforms are capable of much more than serving as strictly domestic SAR assets. At a SAR Europe conference in Dublin in March sponsored by Shepherd Media, a figure widely used by participants was that only around three percent of asset time and capacity is typically used on actual SAR operations. Even with more than 1000 SAR missions flown annually by the CF, the total capacity of available assets is heavily underutilized. Dedicated FWSAR aircraft *can* and *should* be available to perform surveillance and other support missions without risking SAR coverage.

A prime example of the flexibility inherent in a mixed *FWSAR Plus* fleet is the ability to respond to a major ship or aircraft accident in the Canadian North with forward deployed SAR, medevac, surveillance, airlift, helicopter refueling, dispersant spray, and on-scene airborne Command and Control (C2).

C-27J Spartan

On 26 January 2012, a US Department of Defense (DoD) announcement appeared to present an opportunity to expeditiously proceed with FWSAR, while potentially reducing acquisition costs and delivering the desired solution. The USAF intends to 'divest' itself of 21 C-27J transport aircraft acquired since 2008 under the now-cancelled Joint Cargo Aircraft (JCA) program, along with options for another 17 not yet ordered. Possibly anticipating the divestment decision, in December 2011, Australia formally requested a Foreign Military Sale (FMS) of ten C-27J *Spartans* from the US to replace Royal Australian Air Force (RAAF) DHC-4 *Caribous* retired in 2009, and remaining C-130H-model *Hercules* slated for retirement.

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Until the end of February, it appeared that Canada might follow Australia's lead and 'snap up' the rest of these suddenly-redundant new C-27Js. Then, Giuseppe Giordo, the CEO of Alenia Aermacchi, squashed the idea by announcing that Alenia would not support the sale of any American Spartans to third countries, meaning buyers would be denied critical spares and technical authorities, thereby making the aircraft virtually impossible to maintain. His rationale is that any resale of American C-27Js cuts into potential sales by Alenia in a very tight market. He is happy to manufacture new C-27Js for US Foreign Military Sales to Australia and Canada, but considers any onward sales of American aircraft as direct competition with Alenia. "If they want to sell additional airplanes as FMS, we will support them, but not those 21." Giordo stipulated. "In that case the US Government will be competing against our international campaigns in a market where 21 airplanes is a big deal."

Alenia's tough stance brings Canada back to the competitive terms outlined in last year's amended SOR, under which new C-27's remain a favored option. Australia's FMS request for ten C-27Js, with an anticipated value of C\$946 million, includes 23 Rolls-Royce AE2100D2 engines, communications systems, self-defence equipment, Northrop's APN-241 Tactical Transport Radar offering a high-resolution synthetic aperture radar-mapping mode, and an unspecified simulator package.

Significantly for this contest, the C-27J offers no Canadian content, which could prove problematic with parliament and the public.



The Spanish-manufactured CASA C-295.

Reuters photo RTR1W746

EADS CASA C-295

Until now, the EADS CASA C-295 was considered the main FWSAR rival to the C-27J, as it has been in numerous hard-fought airlift competitions around the world. As such, comparative differences between the two aircraft are well known, if subject to distortion and 'spin' by rival camps. A March 2012 comparison of the two by the Australian Strategic Policy Institute (ASPI)¹ highlights that the C-295 is cheaper to procure and operate, and has a longer, more flexible cabin. The ASPI report recognizes that the C-295 is around 15 percent cheaper, equating to a per-unit 'fly-away' cost of C\$30.4 million versus C\$35.7 million for the C-27J, with C-295 lifecycle costs coming in below the *Spartan*, based upon a variety of factors.

In contrast, the C-27J is faster and more maneuverable than the C-295, and is promoted by advocates as being a bit more rugged. That said, the Finnish Air Force routinely operates C-295s in extreme Arctic conditions, and several air forces have successfully employed them on operations in harsh, austere field environments such as Afghanistan, Chad/Sudan, and the Amazon.

Along with its EADS CASA sister-ship, the CN-235, the C-295 boasts a proven record as a Maritime

Figure 1: FWSAR Comparison		Notes: *estimated			
	C-27J	DHC-5NG	C-295	Q400	HC-130J
Wing span	94' 2"	96' 0"	84' 8"	93' 3"	132' 7"
Overall length	74' 6"	79' 0"	80' 4"	107' 9"	97' 9"
Overall height	34' 8"	28' 8"	28' 5"	27' 5"	38' 9"
Cabin length	28' 1"	31' 5"	41' 8"	61' 8"	40' 0"
Cabin width	8' 0"	8' 9"	8' 10"	6' 8"	9' 9"
Cabin height	7' 4"	6' 10"	6' 10"	6' 5"	9' 0"
Operating Weight Empty [lbs]	37,480	24,000	24,251	39,284	89,000
Max Take Off Weight [lbs]	70,106	49,200	51,150	65,200	164,000
Max Payload [lbs]	19,842	*18,000+	20,400	18,716	35,000
Maximum speed [knots]	325	*300+	311	360	360
Range [nm]	2,300	*600+	2,430	1,500-3,000	3,480

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Surveillance Aircraft (MSA) equipped with integrated radar, FLIR, and other sensors that correspond to Canadian FWSAR requirements. C-295 and CN-235 MPAs are in service with the US Coast Guard, Portugal, Mexico, Chile, Ireland, Colombia, Venezuela, Turkey, and Spain, while Brazil operates a trio of C-295s in the SAR role. In comparison, the C-27J has only been employed so far as a light airlifter, and has not benefited from any sensor integration work.



Field Aviation (Chelle Design)

An artist's conception of the Field Aviation P/Q 400 SAR.

Ultimately, the C-295's proven record as an MSA and airlifter with lower procurement and operating costs overwhelm its single deficiency, slower cruise speed. More to the point in this case, the C-295 has obvious and substantial Canadian content in the form of Pratt & Whitney Canada PW127G engines.

Buffalo Next Generation (NG)

Beyond the emotional and political advantages of being 'made in Canada,' both Viking Air's *Buffalo Next Generation* and a Bombardier/Field Aviation *Q400* SAR make perfect sense, and they deserve to compete in a fair and open contest.

Legacy CC-115 *Buffalos* are highly regarded by SAR crews, and they have performed well in Western Canada. One drawback is that they are unpressurized, which may prove too difficult or too costly to correct in the NG. Being unable to pressurize reduces efficiency at higher altitudes, and limits the ability to avoid bad weather, such as icing and thunderstorms. Short range is another issue, which may not be appreciably improved in the NG. Otherwise, the *Buffalo* NG is competitive with the C-27J and C-295 in terms of *anticipated* performance and cabin size.

However, great unknowns for the NG are *actual* performance, since none have been built yet, and how long the development, testing, and certification process would take, leaving some doubt as to whether the type could enter service by 2016. In 2009, Viking Air VP for Business Development Rob Mauracher told the American publication *Aviation Week* that two years would be required to develop and certify a "Technology Demonstrator" *Buffalo* NG, followed by three years to upgrade existing CC-115s to NG standard, or to establish a new production assembly line.

Therefore, based upon a 2013 contract, the best-case scenario for *Buffalo* NG IOC is 2018. 'On the plus side,' in the same article, Mauracher claims the procurement and lifecycle costs of the NG would be 40 percent less than for a comparable number of C-27Js.

Q400 SAR

A Bombardier/Field Aviation *Q400*-based SAR platform, promoted under the trademarked designation *P-400* by Field, is clearly the optimum Canadian solution in terms of cost, performance, capability, and maturity. Joar Gronlund, the Non-Executive Director of Field Aviation in Ontario is confident that fully equipped *Q400* SAR aircraft could be in service by 2015 or 2016, based upon Field's extensive experience modifying similarly-configured *Dash 8* MSAs, the *Q400* being a more advanced derivative of the *Dash 8*. FWSAR *Q400*s could be completed from new production airframes directly off the Bombardier line, or from available low-time second-hand aircraft.

The *Q400* is as fast as a *Hercules*, and faster than all the other competitors. Its cabin is significantly longer and more flexible than the C-27J, offering ample space for sensor work station(s), an intensive care medevac station, equipment stowage, and an in-flight rigging area for Rescue Technicians, plus standard airline seating for around 12 passengers. Optional conformal fuselage tanks carrying an extra 10,000 lbs of fuel would double the aircraft's range to 3000 nautical miles, surpassing the C-295/C-27J, with minimal effects upon overall performance.

According to Joar Gronlund, the *Q400* SAR would have two large air-operable doors, one for personnel parachute operations - both static line and free fall, and one for equipment drops. Field has installed, tested, and certified similar in-flight opening doors on *Dash 8* MSAs delivered to Sweden, Iceland, and Australia. Importantly, Field Aviation has extensive experience integrating FWSAR compatible sensors in *Dash 8* MSAs, including Elta and Raytheon belly-mounted search radars, and FLIR turrets mounted under the nose of the aircraft.

HC-130J Combat King

While Lockheed Martin reportedly has a standing offer of short-fuselage C-130J *Hercules* transports to the CF, higher procurement and operating costs, compared to the highly capable and less costly alternatives discussed above,

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probably make this an unrealistic option for the domestic SAR mission only. However, the RCAF also requires new *Hercules* for a broad range of missions that collaterally include domestic SAR in the middle regions of the country. Requirements include replacing CC-130H(T) aerial refueling tanker transports at Winnipeg, and establishing a Fixed Wing Special Operations capability at Trenton. Both can be relatively economically achieved by retiring/selling all remaining H-model *Hercules* (6x CC-130H, 4-5x CC-130H(T) tankers, 2 x CC-130H-30) and replacing them with ten new J-models, based upon the HC-130J *Combat King* SAR *Hercules*, which has a unit cost of C\$ 65.8 million, according to the USAF.

The HC-130J is replacing elderly HC-130P/Ns as the only dedicated FWSAR platform in the USAF. It is an extended-range version of the C-130J that can rapidly deploy to a domestic SAR scene or around the world to conduct Combat SAR, Special Operations and aerial refueling missions. It can operate from austere airfields in all weathers to perform airdrops of personnel and bundles, tactical airlanding operations, helicopter and fast jet aerial refueling, and forward area ground refueling. Other roles include humanitarian assistance, disaster response, emergency aeromedical evacuation, and environmental response.

The HC-130J has advanced navigation, threat detection, and countermeasures systems, and it is night vision goggle (NVG) compatible. Mission systems include the AN/APN-241 Tactical Transport Radar, an AAQ-22 *Star Safire III* electro-optical/infrared sensor, radar and missile warning receivers, chaff and flare dispensers, and secure satellite and data-burst communications.

For the Special Operations/CSAR role, the HC-130J is optimized to fly at night at low-to-medium altitudes in contested or sensitive environments, over land or water. Aerial delivery options include personnel parachute and equipment drops, and, in common with all the other FWSAR candidates, the HC-130J can deliver rescue bundles, illumination flares, marker smoke, and raft/survival kits.

Like the current force of CC-130H(T) *Hercules* tankers, the HC-130J can refuel RCAF CF-18 *Hornets* and next-generation CF-35A *Lightning II* fighters equipped with hose-and-drogue refueling probes. Helicopter aerial refueling can be conducted at night for up to two helicopters simultaneously. While the CF currently have no helicopters capable of aerial refueling, this is certain to change. Some of the new CH-147F *Chinooks* scheduled for delivery from this year forward are expected to gain the capability in order to support Special Operations Forces (SOF) and Arctic operations. Further, with the delivery of five HC-130Js, a re-designated 424 Special Operations Transport and Rescue Squadron at Trenton could exchange its CH-146 *Griffon*

Figure 2: RCAF FWSAR Plus Squadrons

442 Rescue and Patrol Squadron CFB Comox 5x CP-400 FWSAR, 5x CH-149 Cormorant SAR helicopters
435 Transport and Rescue Squadron CFB Winnipeg 5x CC-130J(T)
424 Special Operations Transport and Rescue Squadron CFB Trenton 5x CC-130J(SO), 6x CH-148(SO) 'Commando Cyclone' helicopters
413 Rescue and Patrol Squadron CFB Greenwood 5x CP-400 FWSAR, 5x CH-149 Cormorant SAR helicopters

helicopters for six SOF/CSAR optimized CH-148 'Commando' *Cyclones* with aerial refueling probes.²

While operating as an air component of Canadian Special Operations Forces Command (CANSOFCOM) alongside *Griffon*-equipped 427 Special Operations Aviation Squadron, 424 would continue to provide domestic SAR coverage in Central Canada, from the Great Lakes to the Arctic. Similarly, in addition to its primary 'fast jet tanker' and airlift roles, 435 Transport and Rescue Squadron at Winnipeg would continue to provide SAR response from the US border to the North Pole.

An important capability offered by the HC-130J is providing ground-based Forward Area Refueling Point (FARP) capability for *Griffon*, *Chinook*, *Cyclone* and *Cormorant* helicopters operating from austere forward airstrips in the Arctic, or in overseas operational areas. This extends the range and endurance of helicopters in support of all manner of missions, from domestic SAR and disaster relief, to overseas



A CC-115 *Buffalo* in a banked turn near Comox, British Columbia.

DND Photo (CFJC) CX2005-0086-372a

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Noncombatant Evacuation Operations (NEO) and CSAR/SOF operations. Using a 'roll-on/roll-off' cabin tank system, they could also spray dispersants following an oil spill, or deliver slurry as emergency fire bombers.

Now What?

A DND-led Government procurement process will ultimately select a winner and negotiate a contract that may incorporate some or all of the *FWSAR Plus* concepts and solutions outlined herein. The more likely outcome is that after a grudging and a perfunctory examination of the alternatives, the process will produce the expected winner, leading to a contract for 15 Alenia C-27J light airlifters that will expend the entire FWSAR budget of C\$1.55 Billion, leaving nothing left over for initiatives to enhance capabilities to perform both domestic SAR and a range of other missions.

When these new yellow and red light tactical airlifters finally enter service, they will undoubtedly be a vast improvement over the old *Buffalos* and *Hercules* they replace, but an

opportunity will have been lost to obtain a lot more capability by seeking flexible and original solutions that collaterally take advantage of Canada's world-class aerospace industry. The legacy *Hercules* fleet will still need replacement sometime during this decade, even as support for 'big ticket' defence spending withers in the face of outlays for shipbuilding and for the F-35. As legacy 'Hercs' fade away, the C-27J fleet will increasingly have to 'pick up the slack,' performing airlift and Arctic support missions, possibly even SOF support. However, 15 *Spartans* will not be able to match the broad range of *FWSAR Plus* capabilities provided by a combination of ten fully equipped *CP-400* dedicated SAR/surveillance/Arctic support aircraft, and ten new CC-130J(T/SO) tanker/SOF/CSAR transports.

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An artist's conception of the Boeing V-22 Osprey in SAR livery. Could this be a contender? [Ed.]

NOTES

1. *Delivering the Goods: the ADF's Future Battlefield Airlifter*, by Tom Savage and Andrew Davies, Australian Strategic Policy Institute, 22 March 2012.
2. "Instructions Not Included," by Jim Dorschner, in *Canadian Military Journal*, Vol. 9, No. 3, 2009.



DND photo by Sergeant Charles Barber, J6 Imagery, CFC

THE USE OF WEB CONFERENCING IN JOINT AND COMMAND STAFF PROGRAMME DISTANCE LEARNING

by Christine Vaskovics

Introduction

Computer-mediated communication (CMC) is defined as any communicative transaction that occurs through the use of two-or-more networked computers. It is the process by which people create, exchange, and perceive information using networked computers.¹ CMC can be divided into synchronous and asynchronous forms.² In synchronous forms, all participants are on line at the same time, while with asynchronous forms, participants are on line at different times, and do not communicate in real time.

For the most part, asynchronous text-based communication tools, such as email and threaded discussions, have been the most widely used form of CMC in distance education.³ However, due to recent technological developments in web conferencing technology, web conferencing is gaining in popularity as a synchronous form of CMC in distance education.

This short article explores the multiple benefits of using web conferencing, a synchronous communication tool, to improve the delivery, and subsequently, the learning experi-

ence of students enrolled in the distance learning courses of the Joint Command and Staff Programme (JCSP) at the Canadian Forces College (CFC).

Context

CFC is a military educational institution that prepares senior military and civilian leaders to handle today's complex security challenges. It educates leaders in defence and security education, research, and outreach.⁴ Two of the main programmes offered there are the Joint Command and Staff Programme (JCSP) and the National Security Programme (NSP). The NSP is offered only as a one year full-time residential course, and the JCSP is offered as both a one year full-time programme, and a two year part-time distance learning programme. The curriculum for both versions of JCSP emphasize operations, leadership, and national and international studies. The curriculum examines aspects of command, ethics, operational planning, and defence management.⁵

The courses that form the distance learning version of JCSP are delivered using *DNDLearn*, the Department of

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National Defence (DND) enterprise-wide learning management system.⁶ Students are able to access assignment instructions and any readings that are not mailed out to them, as well as other course relevant information, by logging into the system from their home or work locations. They complete assignments and quizzes, and are also able to exchange emails and to participate in threaded discussions.⁷ At the end of each academic year, students get together to complete the practical application exercises connected to the JCSP. However, while attending the individual distance learning courses, students are separated by time and space during that period of the course. The residential version of JCSP is taught exclusively face-to-face using a variety of instructional methods, such as lectures, small group discussions, case studies, practical exercises, and individual project assignments.

Problem

As mentioned, the courses that form the *residential* version of JCSP are taught face-to-face, and, as a consequence, there are very high levels of interaction in these courses. Students are able to communicate daily; they discuss the learning material with each other at the same time and place, they work together in small groups on projects, they participate in seminars together, and they attend lectures together.

The courses that form the *distance learning* version of JCSP are obviously different. Since they are separated by both time and space, these courses do not have the same high levels of interaction. They are not able to synchronously work in groups, nor attend seminars and discussions, nor are they able to benefit from lectures. Although distance learning students are able to communicate using email or by participating in threaded discussions, this asynchronous interaction is minimal.

Students of this version of JCSP do, however, get together at the end of each academic year to complete the practical

application exercises connected to the program. Nonetheless, the actual courses do not include this requirement.

As stated by Distance Education specialists Michael Graham Moore and Greg Kearsley, "Effective teaching at a distance depends largely on a deep understanding of the nature of interaction and how to facilitate interaction through technologically transmitted communications."⁸ According to Educational Technology authorities A.W. Bates and Gary Poole, most theories of learning stress the necessity of interaction for learning to be effective. Although first discussed by Moore, it is generally understood by all distance education practitioners today that for learning to be truly effective in a distance education setting, three types of interaction must be present, namely, students need to interact with the instructor, interact with each other, and interact with the learning material.⁹

Solution

Email and threaded discussion are the technologies used for communication and learning in the distance learning courses that form the JCSP distance learning version. However, if the aim of the College is to emulate the conventional 'best practice' of face-to-face learning in a distance education course, the most logical solution would be to use a synchronous communication tool, such as web conferencing.

Web conferencing refers to a range of services that allow many participants to come together and 'meet' to share information. Information such as audio, video and document files can be shared across geographically-dispersed locations synchronously over the Internet.^{10,11} *Voice over Internet Protocol (VoIP)* web conferencing bypasses the telephone, and it transmits audio over the Internet. Participants in a web conference can communicate with the microphones and speakers installed on their computers. Headsets can be used, and most are very affordable.





The Benefits of Web Conferencing for Distance Learning Courses

There are many benefits that can be realized by introducing a synchronous tool, such as web conferencing, to a distance learning course. Because it simulates face-to-face communication, the most obvious benefits are increased opportunities for communication and interaction between students and instructors. There are, however, other less-obvious benefits.

Web conferencing has the ability to foster feelings of community and of belonging. Research studies have revealed that students, when using web conferencing as part of a distance learning course,¹² feel that because it is a synchronous communication tool that increases interaction and communication, it increases engagement levels and feelings of community, which consequently reducing the feelings of isolation some students experience in a distance education setting.¹³

A common element for learning in a normal face-to-face classroom is the social and communicative exchanges that occur between students and instructors, which are commonly referred to as the ‘presence.’ This can be defined as a sense of belonging to a group, and any synchronous communication tool when used in a distance learning environment will facilitate a sense of belonging.¹⁴

A benefit web conferencing has over other asynchronous communication tools that should not be overlooked, and one most instructors will find particularly useful, is the ability it generates to combat lurking.¹⁵ Lurking, in the context of an online discussion forum with a set time frame and learning objective, refers to the practice of reading other student contributions in a discussion forum, and either not contributing, making minimal contributions, or making contributions that are almost identical to those that others have made.¹⁶ Although some will argue lurking in a discussion forum is under-theorized and under-researched, and that there are, in fact, learning benefits associated to lurking,^{17, 18} many educators equate



the practice to ‘freeloading,’ or resource-stealing.¹⁹ When using a synchronous communication tool such as web conferencing, it is easier for the instructor to watch for lurking and to curtail passive participation, because all students attending a session can be given the opportunity to contribute at any time the host decides to offer it.

If it is CFC’s intent that the distance learning students of JCSP have a similar learning experience to the residential students of JCSP, the obvious starting point would be to incorporate the pedagogical functions used in the residential courses into the distance learning courses, functions such as group work, seminar discussions, and lectures. By doing this, the distance learning students will enjoy opportunities for communication and interaction between students and instructors that do not currently exist, and as a result, students will be more engaged – they will experience a stronger sense of community.

Possible Drawbacks to Using Web Conferencing in JCSP Distance Learning Courses

The main drawbacks to using web conferencing for CFC would include the costs associated with acquisition, training, and technical support.

Since CFC is funded by DND, and does not have a funding source based upon tuition, it is increasingly faced with budget cuts, and with ‘having to do more with less,’ just as is the case with other Federal Government departments. Consequently, the introduction of any new technology will have to come with minimal cost, or it must provide a longer-term cost benefit.

The effective incorporation of a web conferencing tool into a higher education environment, such as CFC, is more than just ‘popping a novel gadget’ into the hands of over-worked faculty and staff, and expecting them to use all the best practices associated with that tool. Instructors and staff will need to learn how to properly use the web conferencing,



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and they will need to know both the technical aspects of operation, and how to facilitate on line learning with the tool. The addition of web conferencing will undoubtedly have to include an effective training plan, as well as ample technical support, especially at the initial stages of integration. Instructors and tutors delivering the distance learning courses will also need to be familiar with their roles and responsibilities as moderators in on line communications.

Recommendations for Web Conferencing Tools

DNDLearn Live

Quite recently, the Canadian Defence Academy (CDA) added to their available technologies a web conferencing tool they call *DNDLearn Live*.²⁰ This is an Adobe Connect product, which is an enterprise web conferencing solution for online meetings, e-learning, and web-based seminars (webinars). Adobe Connect is a popular product, and it is used by leading corporations and government agencies.²¹

There are no costs to any units who currently use *DNDLearn* and wish to use *DNDLearn Live*.²² *DNDLearn Live* is accessible to all students, every student accessing *DNDLearn* is able to connect to *DNDLearn Live*, and there are no additional hardware or software requirements with the exception of an inexpensive microphone. Those Canadian Forces education and training institutions who have used *DNDLearn Live* have responded favourably to the product. For example, they have used *DNDLearn Live* for web conferencing, virtual classrooms, and weekly meetings.²³

Simplified instructions on how to use *DNDLearn Live* can be found on the CDA website, and also when logged into *DNDLearn*.²⁴ When using the *DNDLearn Live* tutorial, I found it both easy to understand and informative, and felt it provided a sound overview of the platform; I also felt confident that I could easily conduct a web conference session after completing the tutorial. All technical support needed for *DNDLearn Live* is provided by *DNDLearn* support staff.²⁵



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Saba Centra

The Canadian Defence Academy is introducing a new Learning Management Platform over the next two years which will include an enterprise web conferencing tool called *Saba Centra*.²⁶ It is available only on the DND *Intranet* at present. However it will soon be available on the *Internet*. When this occurs, *Saba Centra* will replace *DNDLearn Live*.²⁷

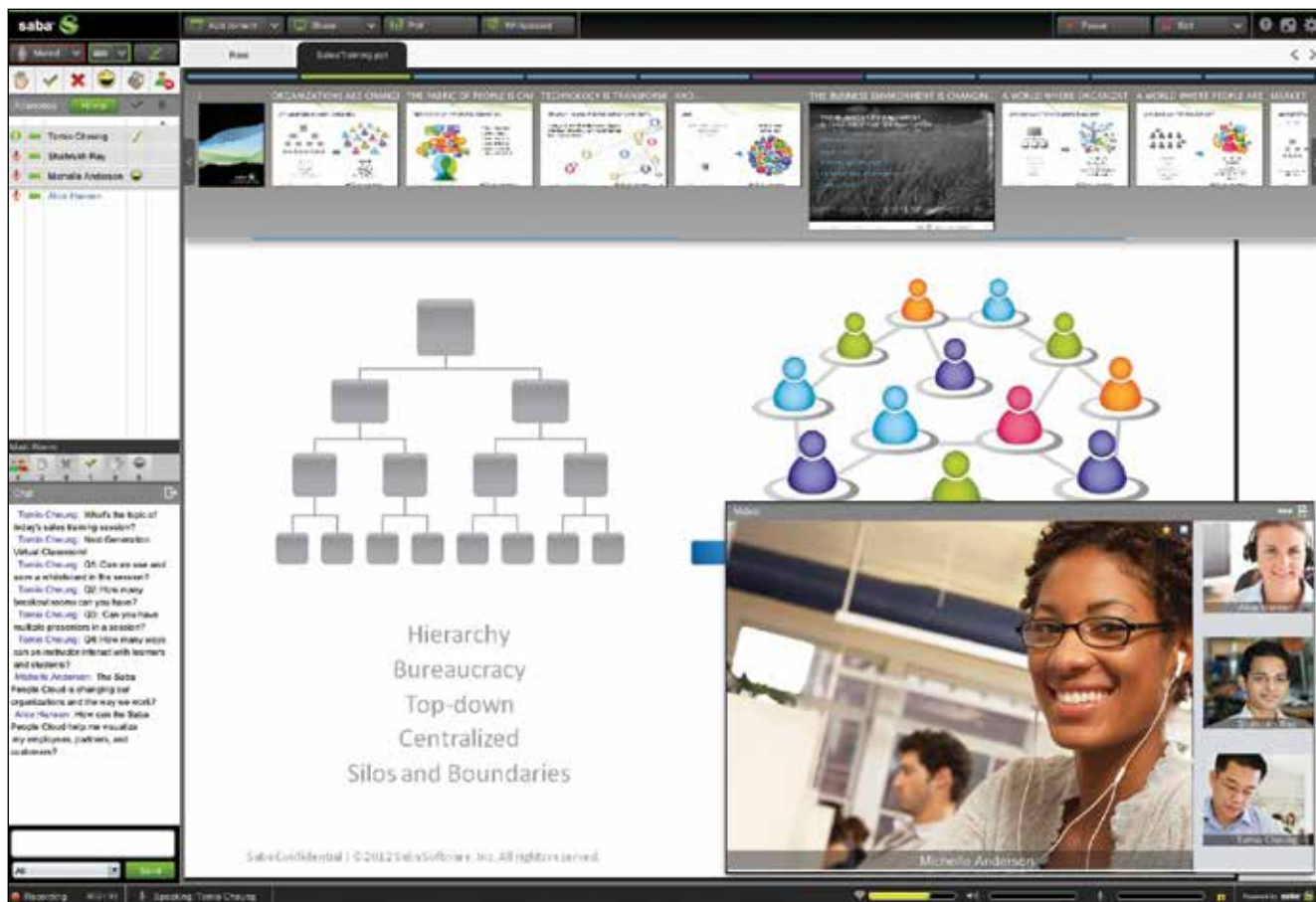
Both web conferencing tools will serve the JCSP distance learning courses well. Both platforms have available technical support and training for staff, faculty, and students. *Saba Centra* is the more current web conferencing tool, but *DNDLearn Live* has received many accolades from the CF training and education community.

Conclusion

Today's web conferencing platforms have the potential to transform distance education courses. Pedagogical approaches common in face-to-face classes, such as lectures and seminar discussions, can now be facilitated in a distance education setting using a web conferencing tool. There are many benefits not achievable when using only asynchronous communication tools in a distance education course, benefits such as increased opportunities for communication and interaction, which invariably will result in increased levels of engagement among students and a stronger sense of community and belonging. The incorporation of a web conferencing tool such as *DNDLearn Live* or *Saba Centra* in the delivery of any one of the distance learning courses of JCSP will undoubtedly result in a better learning experience for students, or said another way, a better distance learning course.

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SABA display

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NATO photo

CANADA AND THE ‘NEW NATO’

by Tim Dunne

Introduction

Canada has been intimately involved in Western European defence and security since 1914. Approximately 650,000 Canadians served in the Canadian Expeditionary Force during the First World War, and almost 69,000 of them made the ultimate sacrifice, along with at least three times that number being wounded. Of note, the Canadian population at the time was only eight million. The Second World War drew even more Canadians into uniform, with more than one million Canadians and Newfoundlanders answering the call. Over 47,000 of them gave their lives, and again, many more were wounded. Subsequently, Canada has contributed the services of approximately 150,000 of its citizens, who have deployed on myriad and varied global peacekeeping missions/foreign military operations, commencing in 1947.

But the evolving nature of armed conflict is reducing the United Nations’ capacity for crisis management, and causing that institution to turn more toward the North Atlantic Treaty Organization (NATO), and to ‘coalitions of the willing.’

Early Innings

At NATO’s formation, according to Queen’s University Professor David G. Haglund, the Alliance was something

into which the United States was reluctantly drawn, being viewed as an indispensable North American contribution with respect to post-war Atlanticism. Canada was instrumental in forging this solidarity. In November 1947, the three national capitals, Washington, London, and Ottawa, began exploratory talks with respect to alternative security arrangements outside the United Nations, which they already viewed as being paralyzed by the rapidly emerging Cold War. Tri-national discussions ultimately involved France, the Benelux countries, and Norway, resulting in the North Atlantic Treaty of 4 April 1949. Denmark, Iceland, Portugal, and Italy then rapidly joined this emerging Alliance.

At its formative stage, Canada’s Prime Minister Louis St. Laurent emphasized that NATO should be more than a pure *military* coalition, and that it should also include additional institutional arrangements. This led to the ‘Canadian Initiative’ Articles 2 and 4 of the North Atlantic Treaty, which enjoined member nations to take seriously the requirement to consult on important matters.

Haglund notes that Canada’s relationship with NATO was a continuation of the long standing relationship with Europe, which provided Canada with its early identity as a European nation within North America. However, after the Second World War, both Canada and the US acknowledged a new reality - that their security was inseparable from that of

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Western Europe. The joint security environment had evolved into an Atlantic community of shared values and interests.

Canada was one of the very few countries to have emerged from the Second World War in an economically strengthened condition. As one of the world's ranking military powers at the time, it shared an obligation for the defence of Western Europe. Economically devastated, Europe was assisted by North American largesse in the form of the US Marshall Plan and Canada's Mutual Aid Program. Like the Marshall Plan, Canada's Mutual Aid Program for Europe, as an example, provided Great Britain with 'top-of-the-line' F-86 *Sabre* jet fighters. Beginning in 1951, Canada deployed a brigade group and an air division to Germany, the latter strength of which would eventually reach twelve squadrons totaling 240 aircraft. In those early days, Canada and the United States became *producers* of security, and Europe, the *consumers* of security. By 1953, the final year of the Korean War, Canada was allocating more than eight percent of its GDP to defence spending, a massive increase from 1947's 1.4 percent. Canada's defence/GDP ratio was then rated fourth highest in NATO, and its defence budget of nearly \$2 billion accounted for 45 percent of all federal spending.

Siegfried, to state in 1955 that Canada's European policy was "remarkably naïve." In a 1958 visit to Ottawa, NATO Secretary-General Paul-Henri Spaak was equally unflattering when he said that Canada had become "the Yugoslavs of NATO."

As Europe progressively recovered from wartime devastation, Canada reduced her commitment to European defence, partially in light of growing European defence capabilities. Overall, Ottawa believed that European defence requirements were depriving Canada of focusing limited resources assistance where it was needed and justified elsewhere. Ultimately, Canada withdrew its garrisoned forces from Germany in 1993.

However, NATO's eventual entry into the Balkans in response to the United Nations Security Council resolutions demanding the Serbian forces withdraw from Sarajevo and from Kosovo ended the argument about the Alliance's claim to survivability. In 1999, NATO was the only multinational organization capable of intervening in Kosovo. Her Excellency Ginte Damusis, Permanent Representative of the Republic of Lithuania to NATO noted: "...no other organization could have undertaken those tasks. And this campaign as well as the U.S.-led operations in Afghanistan in 2001 really exposed that capabilities gap." She asserted that global terrorism, proliferation of weapons of mass destruction, and failed states are the main security threats facing the Euro-Atlantic community, and they should be the focus of NATO's efforts to develop rapidly deployable and interoperable capabilities. Post-Westphalianism, 'soft power,' and the desire to minimize burdens, coupled with the zeal to preserve coalitions, were all pulling Canada back to its Atlanticist strategic centre of gravity, and Canada, in fact, ended the 20th Century as an Atlanticist state.

A New NATO

On 15 December 1997, *Globe and Mail* reporter Paul Koring wrote about Canada's diminishing role in international peacekeeping, noting that a mere 250 Canadian Forces personnel were then deployed on various United Nations operations. This was the lowest level since Lester Pearson won the Nobel Peace Prize 40 years earlier. The article also mentioned that there were 1300 Canadian troops in Bosnia Herzegovina, but Koring said that they did not count because they were "... part of a NATO force rather than UN force." In effect, he ignored UN Security Council Resolution 1031's authorization of the peace stabilization force.

Since then, the imbalance between Canada's UN and NATO peacekeeping commitments has become even more pronounced. By 1 June 2000, there were 2756 CF personnel on overseas operations. Of these, 1596 were with the NATO Stabilization Force (SFOR) in Bosnia Herzegovina, another 522 served with the Alliance's Kosovo Force (KFOR), and another 118 were deployed with the allied air forces at Aviano,



DND photo (CFJC) 988-IMG0086

A CF-100 *Canuck* in European service.

Moving Along

During the ensuing years, Canada would cut back a significant portion of its contributions to Western European defence, because, according to David Haglund, it became too expensive to sustain a robust military contribution to European defence, and to concurrently assume responsibilities for North American air defence.

Canada was campaigning for NATO's commitment to détente, leading Germany's ambassador to Canada, Herbert

Italy. In contrast to Cold War peacekeeping operations, these ‘blue berets’ were sent to areas where fighting continued and where there was no peace to keep, such as in Bosnia Herzegovina and Somalia.¹ The UN Security Council responded by authorizing more robust force in civil conflicts to impose a peace, or at least, a ceasefire.

By the summer of 1995, the Canadian government was beginning to withdraw its forces from the Balkans as the United Nations mission was drawing down. NATO launched air strikes, and the Dayton accords led to the NATO decision to deploy its Implementation Force (IFOR). Canada made a major commitment to IFOR and the follow-on SFOR, supplying one of the largest national contingents (in excess of 1200 troops), as well as continuing deployment of a ship to the NATO naval force in the Adriatic. Kosovo offered another theatre of operations for the Canadian military, when it participated in aerial combat missions against the Serbian forces of Slobodan Milosevic, who were endeavouring to evict ethnic Albanian Kosovars from the region.

“Canadian pilots flew 682 combat sorties, or nearly 10 percent of the missions against fixed targets – and they led half the strike packages they took part in.” Additionally, Canada was “... among only five countries delivering precision guided munitions.”² In all, some 1400 personnel deployed as part of KFOR including an infantry battle group, a reconnaissance squadron, a tactical helicopter squadron, and an engineer contingent. During the spring of 2000, Ottawa decided to consolidate its Balkan presence in Bosnia when a Canadian major-general assumed command of the Multinational Division Southwest, a region comprising 45 percent of the total SFOR area.

zone, and protecting civilians and civilian populated areas from attack or the threat of attack in Libya. Canada provided a frigate, CF-18 *Hornet* fighter aircraft, and CP-140 *Aurora* patrol aircraft, supported by CC-150 *Polaris* and CC-130 *Hercules* airlifters.

The time is past when unarmed peacekeepers interpose themselves between two belligerents to supervise a ceasefire. When Canadian Forces personnel deploy on hazardous operations today, it is likely they do so as part of multilateral forces designed to promote peace and good governance. It is irrelevant whether these operations are called ‘peacekeeping’ or by some other name. Compared to the rest of the Alliance, Canada’s capabilities, and its willingness to use them as evidenced by the record of the first post-Cold War decade, stand up rather well. Ottawa has proven it has been prepared to assume a fair share of the burden of the new NATO, perhaps even more than its share, given that Canada is not a European country.³

The New European Security

The Kosovo crisis accelerated the European security process, which was carried forward dramatically in June 1999 with the Cologne European Council declaration, *On Strengthening the Common European Policy on Security and Defence*. EU members asserted that the Union “... must have the capacity for autonomous action, backed up by credible military forces, the means to decide to use them, and a readiness to do so, in order to respond to international crises without prejudice to actions by NATO.” They also committed themselves to the development of “more effective European military capabilities,” acknowledging that this involved a sustained defence effort and “... notably the reinforcement of our capabilities in the field of intelligence, strategic transport, command and control.”⁴

These and several other European summits culminated at the Helsinki summit of the European Council in December 1999. The Helsinki Declaration underscored the necessity for consultation, cooperation, and transparency between the EU and NATO in this field.⁵

Is the paramount concern in Canadian security policy that of balancing our asymmetrical relationship with the United States with other relationships to allow us to assert an independent personality and to enhance status in international relations? If so, then it is not entirely clear that such objectives are best served solely in the context of an alliance relationship where the United States

and to enhance status in international relations? If so, then it is not entirely clear that such objectives are best served solely in the context of an alliance relationship where the United States

DND photo CKD99-2029-01 by Corporal Danielle Bernier



A CF-18 awaits takeoff on a combat mission, Aviano, Italy, during Op Echo, 1999.

Recently, in 2011, Canada was among the first nations to commit forces to NATO’s Operation *Unified Protector*, the coalition enforcing an arms embargo, maintaining a no-fly

and to enhance status in international relations? If so, then it is not entirely clear that such objectives are best served solely in the context of an alliance relationship where the United States

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is so clearly the dominant partner. The Europeans appear to be open in principle with respect to the evolution of separate relationships with non-European NATO members. Canada has capacities that could be useful in missions contemplated by the EU. The development of partnerships with a more autonomous European security mechanism might provide a useful supplement to the more traditional strategies of balancing through NATO.⁶

NATO helped bring the bloody war in Bosnia to a halt and waged a successful military campaign to halt Serbia's repression in Kosovo. However, no matter how many new states join NATO, and no matter how many solemn reaffirmations emerge from the endless parade of NATO summits, the high-water mark of transatlantic security cooperation appears to have passed.

For decades, the European-Canadian-American partnership was held together by three unifying forces. First, the Soviet threat gave Western Europe and America ample reason to cooperate. The second force consisted of America's economic stake in Europe, which reinforced its strategic interest in European prosperity. The third force was the generation of European, Canadian, and American elites, whose personal backgrounds and life experiences left them strongly committed to the idea of an Atlantic community.⁷

The events of 11 September 2001 reinforced the need for cooperation between NATO and the EU in the field of crisis management. Formal contacts and reciprocal participation increased. On 12 September 2001, the Secretary General of NATO participated in deliberations of the EU General Affairs Council to analyze the international situation following the terrorist attacks of the day prior. Since then, the terrorist attacks in Madrid (March 2004) and London (July 2005) have tragically stressed the need for greater cooperation. Direct contacts between the two organizations have been developed in a number of fields in addition to the fight against terrorism.

However, and perhaps inevitably, the fundamental shift in the landscape of world politics is having adverse effects upon the transatlantic partnership. First, conflicts of interest are becoming more visible and significant. Second, these differences reflect an even more fundamental conflict of

interest between the United States and its European allies. Third, the lack of a common foe exacerbates the familiar problem of credibility. Fourth, the collapse of the Soviet Union has given each of these states a wider array of options. During the Cold War, the rigid logic of bipolarity limited choices on both sides of the Iron Curtain, and meant there was remarkably little debate about the fundamentals of Western grand strategy.⁸

That said, Europe decided over time that it needed to fortify and strengthen its own military capability. The decisive break occurred at an Anglo-French summit in Saint-Malo in December 1988, which called for the European Union to "... play its full role on the international stage" and committed the EU to acquire "appropriate structures and a capacity for ... strategic planning," as well as "suitable military means" to conduct its own foreign policy. This process intensified after the war in Kosovo demonstrated that Europe could not even handle a minor power like Serbia without relying primarily upon the US military.⁹



Aboard HMCS *Charlottetown*, 5 May 2011, Lieutenant-Commander Jurgen Van Daele (right), Commanding Officer of the Belgian mine hunter M923 *Narcis*, looks towards Misratah harbour during Op *Unified Protector*.

DND photo HS2011-E011-003 by Corporal Chris Ringius

Canada's traditional approach to NATO has been modest and self-deprecating, viewing ourselves as one of the historic lower contributors to Alliance security, costs, and activities. In fact, this modest self-image belies a number of stark realities.

- Canada is one of the original thirteen signatories to the North Atlantic Treaty.
- In the early years of the Alliance, Canada and the United States provided aid to Europe as the continent recovered from the post-war recession.

DND photo AT2011-0037-12 by Master Corporal Rory Wilson



Major Darren Hart (right), Regional Military Training Centre (Capital), Senior Military Advisor, presents a graduation certificate to an Afghan National Army medic in Kabul, 4 August 2011.

tion to its troop contribution, Canada committed to more than 100 major projects valued at more than \$130 million since 1995, and played a leading role in health, policing, mine actions, human rights, freedom of the press, and the International Criminal Tribunal in the Former Yugoslavia.

Canada has been an active supporter of NATO operations, including Operation *Deliberate Force*, initiated in response to the Bosnian Serb Army (BSA) shelling of the Sarajevo market place on 28 August 1995, and Operation *Unified Protector* over Libya in 2011.

Canada began military operations in Afghanistan in 2002, and has consistently deployed a force of 2500 troops into that country, from whom to date 158 military members and one diplomat have been killed. Canada began in Kabul, then moved to the northern region of the country,

undertaking operations in Kandahar province in southern Afghanistan, before ultimately returning to Kabul to undertake a training role.

Canada was among the earliest contributing nations to operations in Libya, providing maritime and air resources, and also the designated commander of that successful operation.

Conclusion

Canada needs to revise its self-image as a NATO partner, shed its undeserved modesty and recognize that we, in fact, are among the ‘heavy lifters’ of the Alliance, sometimes in treasure, and often in blood. Canada’s contributions, sacrifices, and losses in the name of the Alliance will receive the recognition they deserve only if the nation demands that recognition.

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- In those early years, Canada directed approximately eight percent of its gross domestic product to defence, becoming a principal generator of defence and security.
- Canada operated military bases in France and Germany for 40 years, as only one of two non-European nations to do so.
- Canada participated in the annual *Fallex Reforger* exercises (Fall Exercise - Reinforcement of Forces in Germany), and would augment its military units resident in Germany by deploying large numbers of Canadian Regular and Reserve personnel to the north German plain. Concurrently, Canada would also participate in the bi-annual Canadian Air-Sea Transportable Combat Group (*Cast CG*) exercise conducted in the Bardufoss region of Norway.

As mentioned earlier, Canada’s commitment to European security and defence dates to 1914. Counting both World Wars, more than 116,000 Canadians forfeited their lives. In 1992, Canada was among the first nations to commit to United Nations peacekeeping operations in the Balkans, and transferred its forces to NATO’s IFOR in December 1995. In addition to its troop contribution, Canada committed to more than 100 major projects valued at more than \$130 million since 1995, and played a leading role in health, policing, mine actions, human rights, freedom of the press, and the International Criminal Tribunal in the Former Yugoslavia.

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DND photo AR2007-A035-0044 by Sergeant Craig Flinder

Reservists Captain Richard Nolan (left) and Captain Clayton Ereat, both originally from Newfoundland, listen to the owner of a pomegranate tree nursery in Afghanistan as Civil-Military Cooperation team members of the Kandahar Provincial Reconstruction Team, 1 April 2007.

THE PLQ MOD 6 CONUNDRUM: HOW THE ARMY PUNISHES RESERVISTS FOR CIVILIAN ACHIEVEMENT

by Dan Doran

The Issue

In this short article, I would like to address the issue of Primary Reserve non-commissioned member (NCM) training in the Canadian Army, in particular, the six-week Module 6 portion of the Primary Leadership Qualification (PLQ) required for the appointment to the rank of master corporal. This course is currently one of the most significant stumbling blocks to career progression among part-time soldiers, mainly due to the length of the course, which translates to the period of time a reservist must take out of his civilian career when an opportunity to attend the course occurs.

Background

The typical reservist's career begins in high school when the member is around the age of eighteen. The member commits his/her summers and weekends to the unit throughout the remainder of high school, and continues this commitment throughout college or university. The reservist will typically complete Basic Military Qualification courses (BMQ – Parts 1 and 2), Qualification Level 3 (QL 3), and QL 4, in addition to a complimentary course or qualification, such as driver, to round out the first four-to-five years of their careers. At this point, the member has generally completed schooling and has joined the civilian work force at an entry-level position. This

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typically translates to very little vacation time (usually less than three weeks), and considerable work hours.¹ These work conditions are the result of the member being at the bottom rung of an organization, and by virtue of trying to establish themselves in a new profession. The member may also have a spouse at this point, with children either on the way, or expected in the foreseeable future.

Despite these hurdles, most members who are sufficiently motivated will nonetheless take the time to continue their military career development through the distance learning portion of the PLQ (Modules 1 to 5), in addition to participating in evening and weekend training at the unit. Once the member has completed these modules, the problem in question arises: how to complete Module 6? This module consists of an uninterrupted six-week training session held away from the home unit. The length of the session makes it impossible for a reservist to complete it without using all his available vacation time, in addition to the leave without pay that employers are obliged to give reservists in certain provinces, such as Quebec.² For the vast majority of new employees who are starting out in the professional work force as engineers, business managers, or as other professionals or entrepreneurs, this level of commitment is clearly unrealistic.

I speak from experience as an individual who has been a new employee in the civilian work force for the past two years. Asking for this amount of time off prior to being firmly established in one's place of work puts the member in a tenuous position at best, despite any legislation that may support time off for military service. In addition, the provincial regulations that allow for training leave require an individual to have been employed by a given company for a minimum of 12 months. With the average civilian in North America changing his place of work on average every 4.4 years,³ this situation becomes a never-ending cycle for a given member that eventually leads to his release from the Canadian Forces. In my case, I was fortunate enough to arrive at my reserve unit fully trained to my present rank, and was not required to make the enormous sacrifices demanded of other members to advance. Unfortunately, the Primary Reserve has come to rely upon ex-Regular Force or Class B reservists to fill its senior ranks, since it has become nearly impossible for the organization to 'self-generate' its own senior staff, due to the overly lengthy training periods documented herein.



Reconnaissance patrol members from Primary Leadership Qualification (PLQ) [Land] Module 6 disembark from a 12 Wing *Sea King* helicopter during Exercise *Final Thrust*, 25 November 2008.

DND photo AX2008-0254 by Sergeant Todd Berry

Wait! There's More

Reading between the lines of the foregoing statements, one can conclude that the reserve training structure is built in a manner that punishes professional success in the civilian world, which, in turn, leads to many future captains of industry leaving the reserves as corporals or untrained second lieutenants, due to the system not being able to tailor a training schedule that meets their needs. The system remains mired in a rigid and inflexible regular force structure that simply does not work for the industrious reservist. This systemic syndrome in the reserves bleeds it of its best potential leaders, and it is a large contributing factor to the difficulty the reserves presently have in retaining and developing its own staff.

As a military officer or senior NCO, one must ask oneself if these members can be blamed for leaving. I do not think I would want to be part of an organization that places impossible demands upon my time in order to ascend beyond the position of a section member or an assistant training officer when I lead other professionals daily in my civilian life, and have professional and personal demands on my time that are paramount to my primary source of income and the welfare of my family.

There is a misconception by Regular Force members as to what defines the Primary Reserve as an organization. We must not forget that while reservists have done amazing work supporting the war in Afghanistan over the past decade,⁴ the Regular Force is only 'seeing the tip of the iceberg' when it comes to the Primary Reserve as a whole in these young men and women with whom they deploy and serve. For every 23-year-old reservist corporal that has decided to take a year off from school to serve his country overseas, there is a

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33-year-old corporal who did the same thing a decade earlier and is now an engineer team leader with an established private firm, who is 'reaching the end of his/her rope' with the reserves because they want to do more training at the armoury, but are constrained by rank and available time to commit to lengthy military career training held in residency format. These are the silent majority in the Primary Reserve that fade away into civilian society because the army consistently and systematically fails to recognize their present value and future potential.

It should also be mentioned that for many, attending these courses represents a significant financial loss. Many senior corporals who work in high-paying civilian jobs earn in excess of \$90,000 per year. Taking six weeks off from work, in most cases unpaid, can prove to be yet another impossible obstacle to overcome. How many Regular Force majors would accept a 60 percent pay cut to spend six weeks in the field on training that will in no way benefit their full-time career?

This leads to a final point regarding the nature of the Primary Reserve. For 90 percent of us - with the exception of those on Class B, B(A) or C contracts,⁵ it is a part-time job that yields on average between \$6000 and \$8000 per annum before taxes. The reason I mention this is to bring to light another misconception about the Primary Reserve, namely, that it provides a job that yields a significant level of income. Money as a motivator is relative to the total income of the person in question. With respect to young civilian professionals in the Primary Reserve, the income generated by their military service represents, on average, less than ten percent of the total household income in dual-income families.⁶ I note these values to pre-empt the retort made by many that 'the

Primary Reserve is a job like any other and should be treated as a priority.' While I would agree with this statement, as would most reservists, the 'job' in question remains, at best, a second priority based upon the simple reality that the income one makes with the Primary Reserve does not 'pay the mortgage.' The reservist's civilian job does so, and his main professional efforts will always of necessity remain there. The Canadian Forces must accept the reality that they must 'take a back seat' to the civilian priorities of its Primary Reserve members and they must also find ways and means to enhance and exploit this reality of life. Successful people or those with great potential for success in the civilian world are inherently busy, and despite their best efforts directed at time management, it is an impossible feat for them to succeed, both in their civilian and military lives, without the military being prepared to 'meet them half way' when it comes to their particular training needs. In short, the CF must do more to enable reservists to succeed in the civilian work force, rather than impede their progress in it, or they risk losing some of the highest-quality members of the Primary Reserve.

What Do We Need To Do?

The solution to this problem is actually quite simple: modify the Primary Reserve training system to accommodate busier civilians through more distance learning and shorter residency periods for courses.

Most of the mid-to-senior-level courses (with the exception of short field portions) are classroom-based. The vast majority of taught material involves instruction from manuals, followed by some assignments to help confirm knowledge,



Reservist Master Corporal Brian Kerluke of the British Columbia Dragoons fires his C6 during the Armoured Reconnaissance live fire battle run as part of Exercise *Western Defender*, 4 May 2009.

DND photo LG2009-0211 by Corporal Bill Gomm

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and then conclusion with an exam. All this can be accomplished through a combination of distance learning and exams administered at home units through a proctor, such as the Regular Force support staff officer. Field portions are typically no more than two weeks in duration, and, as a result, would be far more manageable for Primary Reserve senior NCOs and officers to attend after having completed the theoretical portions at home. The field portion would remain the 'acid test' for leaders to confirm that their proficiency in the *theoretical* translates effectively to the *practical*.

Summing up, the problem that currently exists is ineffectively scheduled military training that does not suit army reservists with professional civilian careers. The solution is to re-adjust the training to meet this need. As a final thought, it is worth mentioning why I believe reservists serve beyond their university/college years. The reasons they stay mainly

revolve around the camaraderie of the regiment and the simple joy of service. It would behoove the army to reciprocate this commitment by trying harder to accommodate the demanding professional civilian careers of these citizen-soldiers, so they can continue to serve and represent the military within their communities and professional lives.

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DND photo VL2011-0230-005 by Corporal Isabelle Provost

Part of the 900 reservists from the 35th Canadian Brigade Group participating in Exercise *Franchissement Audacieux* near Charlevoix, Quebec, 1 October 2011. They are crossing the St. Lawrence River in one of 30 inflatable assault boats to attack a fictional enemy on the other side.

NOTES

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DND photo ET2012-5012-09 by Corporal Malcolm Byers

HMCS *St. John's* conducts operations in the Davis Strait east of Baffin Island on 16 August 2012 during Op *Nanook 12*.

REVIEWING DEFENCE POLICY

by Martin Shadwick

In the later years of the Trudeau government, it became customary—indeed, almost obligatory—for academics, parliamentary committees, think tanks, media pundits and retired senior officers to press the merits of a new white paper on defence, or, at the very least, its functional equivalent. The rationales for a fresh look at Canadian defence policy varied from commentator to commentator, but, at root, shared the conviction that the Trudeau government's unduly optimistic, détente-era white paper of 1971 had become an outdated historical curiosity by the early-1980s. The proponents of a new white paper acknowledged that the Trudeau government's much more pragmatic Defence Structure Review of 1975 had rescued the Canadian military from the financial wilderness, and had restored NATO to its pre-eminent position in Canadian defence policy, but posited that the government had failed to provide a thoroughgoing intellectual foundation for the capabilities-oriented Defence Structure Review, and had not fully addressed the infamous 'gap' between Canada's declared defence commitments and actual military capabilities. The arguments were well-founded, but the Trudeau government, for a variety of reasons, never did produce a second white paper on defence.

The government of Stephen Harper, which rolled out its Canada First Defence Strategy (CFDS) in 2008, has not yet been on the receiving end of such a steady pro-white paper bombardment, but it is patently clear that calls for a meaningful dialogue on defence, a thorough update of the CFDS, a defence review, or a full-fledged white paper—in any event, something more than a mere tweaking of the CFDS—are on the rise. Indeed, the first criticisms that the CFDS was more shopping list than intellectual foundation (arguably the opposite of a defect in the defence component of Paul Martin's *International Policy Statement* of 2005) surfaced within days of its release. In a more recent but essentially similar vein, Eugene Lang and Eric Morse, writing in the *Toronto Star* in 2010, argued that "... at a minimum, our political leadership owes Canadians a conversation about the military as an instrument of Canada's foreign policy. An honest conversation about the nature of our military today, the realities of the dangerous world in which we live, the imperfections of our international organizations, and how a Canadian contribution to international peace and security can fit with these realities."

Paul Chapin and George Petrolekas, in *The Strategic Outlook for Canada*—a February 2012 Vimy Paper published by the Conference of Defence Associations Institute—observed: “Canada’s defence budget has doubled in the last ten years and now exceeds \$20 billion a year. The new resources have gone to fighting in Afghanistan and more recently in Libya, to smaller CF deployments across the globe, to replacing equipment lost in battle—and, finally, to beginning the long process of modernizing the army, navy and air force. With ‘transformation’ likely to reduce the defence budget in the order of 15 [percent] and with limited room for economies (the transformation of 1994 cut \$7 billion and 30,000 CF personnel), the CF will only be able to do ‘less with less’ in 2012 and beyond.” This state of affairs, they posit, “begs for policy clarity on a number of fronts.” What, for example, “... are the government’s expectations in respect of the capabilities of the Canadian Forces in the event that they are called on to participate in a new NATO or coalition operation this year or next? [In a] budget-constrained military, will decisions already taken regarding new equipment purchases have to be revisited and new choices made driven by affordability, return on investment, and emerging strategy?” Can “previous sacred cows such as general purpose combat capability be maintained or is some degree of specialization needed across various elements of the Canadian Forces? For example, do we need specialized units and if so, what kind?” What balance, they ask, should be “struck between domestic and expeditionary capabilities”? What trade-offs may have to be made “between traditional priorities such as the commitment to NATO and emerging priorities such as defence against cyber attack and ballistic missiles, sovereignty in the Arctic, security relations with partners in the Americas, and the geopolitical shifts underway in the Asia-Pacific region? Will a new balance have been struck between the weight placed on the three services (more navy and air force, less army?) and will forces have been realigned between the East and West coasts of Canada?”

They conclude that the CFDS “needs to be updated if it is to continue to serve its purpose of ensuring that the Canadian Forces have the people, equipment and support they need to meet existing and emerging security challenges. Before engaging in a re-write, the government should consider a series of first principles to guide the work and define more precisely the contribution the Canadian Forces are expected to make to the nation’s security.” They further recommend: “[that] the Defence Investment Plan should be critically evaluated to ensure that the scope, timing and relevance of new [capital] acquisitions correspond to their operational sustainability and future affordability” and, given that “the growth in the DND budget has outstripped the Department’s capacity to gain approvals and to deliver the capital program, with significant dollars remaining unspent at year-end, the government should permit reprofiling of lapsed capital funds to future years when the available funding will align more practically to actual project spending projections.”

In a June 2012 commentary for the Canadian Defence and Foreign Affairs Institute, Canada’s distinguished military historian and defence authority Jack Granatstein posited: “The

Harper government and the military leadership of the Canadian Forces have been silent on what they expect the CF to do in the next five or ten years. Canada has no national security strategy, for one thing, and the nation’s defence policy seems to be wholly reactive—Libya? Send a frigate and CF-18s—rather than trying to plan for likely contingencies and to shape a military to meet them. As budgets decline, as new equipment procurement inevitably stalls, it is time to re-think what Canada does and how we do it. Do we want Canada to continue to have three small services of roughly equivalent weight as at present? Or do we believe the future calls for the RCAF to be pre-eminent, featuring [F-35s], drones, and C-17s? Do we foresee an army that can deploy a division overseas and sustain it or one that must strain to support a battle group? Do we want the Royal Canadian Navy to be larger and to have its weight in the North Atlantic, as at present, or do we want to shift to the Pacific? Do we want ships designed to go anywhere or only to protect the Canadian coasts? We simply have no idea what the government is thinking, if it is thinking anything other than that the CF’s equipment needs seem to cost the earth. (Nor, incidentally, do we have any idea what the Official Opposition believes about defence other than that the [F-35] will cost too much and is the wrong aircraft and the Americans are nasty.) After more than a decade fighting a war in Afghanistan, surely the time has come for the government to make some fundamental decisions about the future of the CF. Ideally this should be done in the form of a White Paper produced by the Defence and Foreign Affairs departments, but in Mr. Harper’s Ottawa the centre rules. That likely means that the Prime Minister’s Office would shape the policy for departmental drafters to polish. That may not be ideal, but it would be better than doing nothing, better than the drift that now seems to be Canadian defence policy.”

Potentially a central factor in determining the optimal means of tackling these and related questions is the current state of the decision-making environment for defence in Canada. For the Department of National Defence and the Canadian Forces, this means a curious and complex amalgam of factors. On one hand, the Canadian Forces cannot be accused of hibernating since the end of the Cold War. Indeed, the full scope of Canadian military activity since 1989—be it military, quasi-military, or non-military in *nature*, or domestic, continental, or global in *scale*—has been extraordinary, ranging from the Oka Crisis and the Persian Gulf War, and a massive surge in peacekeeping and peace support operations in the 1990s, many of which, in due course shifted from UN to NATO auspices. Other notable taskings included large-scale disaster and humanitarian relief operations at home (i.e., the “ice storm of the century”) and abroad (i.e., Haiti), and from Human Security/Responsibility to Protect-style interventions in Kosovo and Libya, to a diverse and demanding set of commitments post-9/11, most notably, of course, combat operations in Afghanistan. These exertions, arguably, have sensitized Canadians to the volatile and unpredictable geo-strategic environment. However, Jennifer Welsh takes note of some encouraging trends in an intriguing analysis in the June 2012 *Literary Review of Canada*, including enhanced public support for the retention, just in case, of a least some form of “multi-purpose, combat-capable” defence establishment, and the re-



DND photo IS2012-2003-205 by Master Corporal Marc-André Gaudreault

Corporal Daniel Fullerton from A Company, 2nd Battalion, Princess Patricia's Canadian Light Infantry, conducts Military Operations in Urban Terrain (MOUT) at the US Marine Corps training area, Waimanalo, Hawaii, 30 July 2012.

connection of many Canadians with their armed forces. This most assuredly did not mean that all Canadians supported the combat role in Afghanistan, but most Canadians were prepared to acknowledge the sacrifices of their military personnel.

On the other hand, a number of roles that have traditionally commanded high levels of public support have not fared well in recent years, a development that could erode broader public support for defence. Examples include peacekeeping and peace support operations under the flag of the United Nations, although it must be acknowledged that the significant slippage in Canadian participation pre-dated the Harper government, search and rescue, buffeted by delays in modernization and perceived shortcomings in levels of service, and potentially at risk of full privatization, and Arctic sovereignty. The latter should have been an area of real strength for the Harper government, but serious delays in such key projects as the Arctic Offshore Patrol Ship (AOPS) and the de-scoping of such initiatives as the Nanisivik refuelling facility—now a mere “gas station,” laments defence (and Arctic) expert Professor Rob Huebert—have undermined its credibility. For Canadians anxious to maintain a security link to Europe—in part to balance Canada's security relationship with the United States—recent decisions to exit the Alliance Ground Surveillance (AGS) project and, in particular, to eliminate the Canadian contribution to the NATO AWACS force—are additional causes for concern. Also required, in any event, is a much sharper and much more holistic understanding of public attitudes to defence in 21st century Canada. To what extent

might Canadians embrace the assertion advanced in some circles that Ottawa is attempting to rebrand Canada as a ‘warrior nation’? How might changing demographics alter public perceptions of defence and the Canadian Forces? Long-standing priorities and commitments that appear entirely appropriate to a fifth-generation Winnipegger, for example, may—or may not—appear equally appropriate to a newer arrival.

For those charged with updating, reviewing, or ‘resetting’ Canadian defence policy, the two most immediate areas of concern are tight money and managerial competence. The former is nothing new in the often parsimonious world of Canadian defence, but the magnitude of the challenge—given weaknesses in the Canadian economy, significant damage to Central Canada's manufacturing sector, the global economic recession and continuing uncertainty, numerous competing demands upon the public purse, and the sheer scale of DND's procurement backlog—clearly provides a point of departure from other post-1945 eras of restraint. Economic measures of the type flowing from the federal budget of 29 March 2012—such as reductions in the civilian and full-time reservist workforces, the elimination (i.e., ADATS) or pruning of selected weapon systems, and the disposal of surplus facilities and real estate—provide some (painful) measure of budgetary relief, and will undoubtedly be followed by additional such steps, but ‘shaving the ice cube’ can only go so far. Small wonder that we are witnessing renewed speculation that Canada may be forced to select military ‘winners and losers,’ thereby replacing three multi-purpose, combat-capable services with two (or

fewer?) multi-purpose, combat-capable services, and one essentially-constabulary service. The enormous risk, of course, is that there is no way to guarantee the accuracy and durability of our choice, no way to necessarily ‘get it right.’ The view expressed in some quarters after the Persian Gulf War of 1990-1991 that Canada should favour its navy and air force at the expense of its army may have appeared modestly tempting in 1991, but it would have looked hopelessly shortsighted, and option-limiting, in 2001.

Managerial competence in defence procurement is not a new issue either, but the particularly lengthy list of projects that have encountered difficulties of one type or another—the F-35 (particularly badly battered in reports by the Office of the Auditor General and others), the *Cyclone* maritime helicopter, the *Chinook* medium transport helicopter, the Fixed-Wing Search and Rescue Aircraft, the Joint Support Ship, the Arctic Offshore Patrol Ship and the Close Combat Vehicle, to cite but some examples—is both new and extremely disquieting. In fairness, one should note that DND’s relevant project management expertise was significantly eroded during the 1990s (another legacy of the “decade of darkness”), that the procurement system was simply not designed to cope with so many large, and, in some cases, extremely complex projects,

and that DND is by no means the only actor (or culprit) in Canadian defence procurement. On the other hand, some of the projects on the aforementioned list are not particularly complex, not ‘rocket science,’ and should have been able to navigate the shoals of even Canadian defence procurement in a smoother and more timely fashion. Others have faulted DND for a perception that budgetary restraint is merely a temporary obstacle, and for a sense of entitlement borne in part of the operation in Afghanistan. The ‘bottom line,’ in any event, is that the procurement system has become dysfunctional and must be addressed on a priority basis. The Harper government announced a raft of changes to the CF-18 replacement project following the Spring 2012 Report of the Auditor General, including the creation of an F-35 Secretariat within the Department of Public Works and Government Services Canada, and more such changes must be anticipated. Such changes will involve further angst for DND and the Canadian Forces, but the risks incurred in losing the confidence of the Canadian people—and the Harper government—would be infinitely greater.

Martin Shadwick teaches Canadian defence policy at York University. He is a former editor of *Canadian Defence Quarterly*.



DND photo BN2012-0210-37 by Corporal Pierre Habib

This CF-18 *Hornet* manoeuvres dynamically during an air show held at La Baie, Quebec earlier this year as part of the celebrations surrounding the 10th anniversary of the amalgamation of Saguenay.

BOOK REVIEW ESSAYS

[Editor's Note~ Now and then, a work emerges for review that is both time-sensitive and of special relevance to current and future Canadian Forces doctrine and operations. Accordingly, two different assessments of the same work are herewith presented by two different CF practitioners of the Comprehensive Approach.]

Security Operations in the 21st Century – Canadian Perspectives on the Comprehensive Approach

by Mike Rostek and Peter Gizewski (eds.)

Montreal & Kingston: Queen's Policy Study Series, McGill-Queen's University Press, 2011

281 pages, \$ 39.95

ISBN: 978-1-55339-351-1

Reviewed by Brigid Dooley-Tremblay

Mike Rostek and Peter Gizewski have done an excellent job of compiling a series of essays that - collectively - chronicle the level and effectiveness of civil-military cooperation in Canadian domestic and foreign operations following ten years of war in Afghanistan. The volume should be of considerable interest to anyone following the current academic discussion on the comprehensive approach, the precise definition of which is a hotly debated subject addressed in several of the papers. To those unfamiliar with the topic, the comprehensive approach may be succinctly described as a cooperative approach to crisis management where "...diverse situationally-aware actors resolve complex issues through the purposeful coordination and deconfliction of their information, actions and effects."¹ Variants of the concept go by more familiar names, including: 'joint, interagency, multinational, private (JIMP),' 'whole-of-government,' and 'defence-diplomacy-development,' - the '3D' approach.

The term comprehensive approach most frequently implies cooperation among a wide variety of actors operating within the international community, including those representing governmental, inter-governmental (such as the United Nations and NATO) and non-governmental organizations. Rostek and Gizewski have included a captivating section that describes three separate instances where the concept has been applied to manage domestic security-related challenges, with varying degrees of success. This somewhat-unconventional addition enhances the uniquely Canadian flavour of the book, and extends its perspective to include situations and organizations that might otherwise escape examination.

Security Operations in the 21st Century is particularly intriguing because it so accurately depicts the attitudes, assumptions, perceptions, and misperceptions of the various players who have participated in Canadian security-related operations, as well as those of their academic observers. For example, some of the authors suggest that the tactical-level

units that perform civil-military cooperation (CIMIC) tasks on Provincial Reconstruction Teams and elsewhere represent the entirety of the Canadian Forces' contribution to the comprehensive approach. Others make it clear that this is not the case. In military parlance, the comprehensive approach is practiced at the tactical, operational, and strategic levels; and commanders, headquarters, and units throughout the chain of command work to contribute to it by fostering strong civil-military relations. Such activity does not fall within the sole purview of CIMIC units, despite their moniker and mandate. This is often misunderstood by organizations - such as non-governmental corporations and development agencies - in which individuals operate simultaneously at all three levels. Disparate views, different objectives and stereotypic opinions held on all sides can serve to frustrate the type of cooperation that is both *prescribed* by and *necessary* for the comprehensive approach to effectively function.

The book's content is solidly researched, written, and compiled. Although several essays touch upon similar topics, this is a strong asset rather than a liability. An impressively broad range of themes are examined from varying perspectives in the voices of the constituencies represented. Without exception, the contributors are very well-qualified to speak for the organizations and points of view they champion.

There has been much discussion in recent years about the importance of creating professional development courses aimed at fostering understanding and cooperation

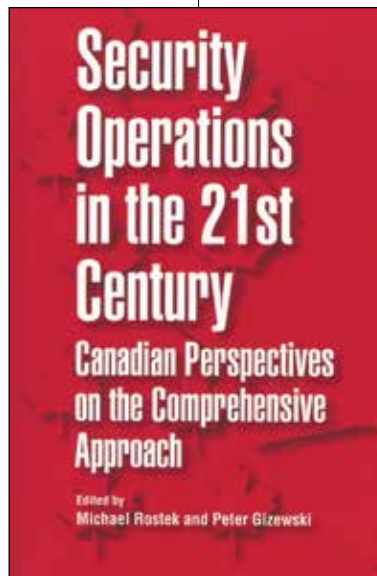
among governmental and other Canadian practitioners of the comprehensive approach. Were *Security Operations in the 21st Century* to be adopted as a text for such educational purposes, it could contribute substantially to furthering this objective and establishing the comprehensive approach as a Canadian norm that supports security and stability in the 21st Century. As the book perceptively concludes: "*The litmus test for the comprehensive approach is simple: The whole must be greater than the sum of its parts.*"²

NOTES

1. Chief Force Development, *The Comprehensive Approach Concept* (2010), as quoted on p. 236.
2. Christann Leuprecht, *Conclusion*, p. 247.

Reviewed by Derek Spencer

Since the end of the Cold War, NATO and various nations, including Canada, have undertaken a large number of stabilization missions, such as ISAF, with their military forces. Arguably, the single largest deduction from these operations is



that no single agency can achieve success by acting on its own. The result has been a focus upon even more than a 'whole of government approach,' but rather, a Comprehensive Approach (CA). NATO has, in fact, embraced this concept at the highest level, and considers it key to operational planning and execution. It is not a rarefied or esoteric concept, but one many in the Canadian Forces (CF) at all rank levels have experienced in many operations. Since the seminal paper on the topic by Leslie, Gizewski, and Rostek in the Canadian Military Journal in 2009, this has moved beyond a fad or a buzzword into a concept that is gaining theoretical rigour, and one that has been 'operationalized.' I myself have 'lived the CA' in operations in Afghanistan within Regional Command (South) Headquarters Reconstruction and Development (R&D) Branch, in support of the Integrated Security Unit (ISU) in preparation for the Vancouver Winter Olympics, and as a student on NATO's Comprehensive Operations Planning Course.

It is against this background that *Security Operations in the 21st Century* has been published. The book results from the fine editing of papers submitted to the Comprehensive Approach conference held in Kingston, Ontario, in April 2010 by two of the leading writers on the topic, Lieutenant-Colonel (ret'd) Michael Rostek, and Mr. Peter Gizewski. These editors have taken great efforts to put together a number of papers drawn from a very wide community of interest. The book represents an excellent effort to turn a loose field of government buzzwords into a solid theoretical foundation. Starting in Chapter 1, Gizewski offers what is likely the best definition available of the Comprehensive Approach, describing it as "... a means of achieving greater awareness and interaction with others agencies and organizations characterized by proactive engagement between actors, shared understanding, outcome based thinking and collaborative working." By bringing together such a wide range of authors, this subject gets an amazingly thorough treatment. It is organized into five major parts: (Re-) Discovering CA, Non-Government Perspectives, CA in International Operations, CA in Domestic Operations, and Making CA Work. As a list of sections, one can see that not much has been left unaddressed from the foundational, to the practical, to future development opportunities.

Part 1 provides a detailed theoretical foundation and historical treatment of the topic. It then proceeds with a review of various doctrinal efforts garnered from the UN, NATO, the US, and the UK. Part 2 provides a useful counterpoint by giving a clear voice to the other side of the CA: non-governmental organizations. It is perhaps paradoxical that the military has identified the value of the CA, produced doctrine, training, and organizational structures around it, and then proceeds into operations with an expectation that potential partner agencies will follow this militarily-dominated method. The value of NGOs in complex humanitarian spaces, and their impartiality in delivering critical resources without bureaucratic burden, is the very impediment to effective collaboration with the military, something for which CA argues. In practice, this has caused no end of frustration in R&D or Plans branches in NATO Headquarters. It is Nipa Banerjee in Chapter 5 who provides a very enlightening argument that Quick Impact Projects (QIP) may make matters worse, not better. And yet,

NATO Lessons Learned would say that perhaps the one valid type of action in an R&D line of operation is the delivery of QIPs. This does not mean that militaries should not do QIPs. It means we have to be very culturally sensitive when we do them and this may be very difficult to achieve when cooperation with NGOs has proven to be very difficult. To finalize this point, 'Medicines Sans Frontiers' members M. McHary and K. Coppock perhaps said it best in Chapter 6: "In the end, co-existence not cooperation is all we can achieve." In sum, Part 2 is a 'splash of cold water' that perhaps all us self-styled military 'experts in the CA need.

With the foundation established, and a new sense of wariness in place, Parts 3 and 4 stage well. They represent an excellent sampling of operations as case studies along the full spectrum of recent operations. Colonel Simm's description of the JIMP approach provides a further and practical deepening of how the CA works. That it differs from NATO's framework that uses PMESII should not hinder our use of the CA. They are frameworks to undertake meaningful planning that enables successful mission execution. The point in both is that military forces taking the CA must synchronize, coordinate, and co-exist with actors outside our control and influence, and yet, they are entities who nonetheless influence and impact upon us. Overall, the international case studies provide a number of valuable expeditionary examples that go beyond the often too narrow focus upon Afghanistan. Conversely, Bernard Brister's paper on the Vancouver Winter Olympics provides a great example for the CA in Domestic Operations. As I personally led a CA in the specialized field in support of the ISU, I found this objective and scholarly article interesting. In my opinion, our experiences and successes garnered from that process only reinforce his deductions. That ours worked so well was because the CF was formally requested by the Minister of Public Safety to aid the RCMP, was then subsequently tasked by the CDS and Canada Command, and was expected by the civilian agencies and departments (provincial and federal) to lead the effort. In short, it worked only because all sides wanted it to work; certainly rare in practice, based upon all the case studies.

At the end of this deliberate effort to establish a theoretical foundation and provide case studies, Part 5 takes it one step further. It is a bold attempt to turn a new theory into a practical process. Clearly, the challenge will be to partner with Federal Government departments and Non-Governmental Organizations (NGO) and then conduct joint training. The start of this is undertaking military pre-deployment exercises that have meaningful opportunities and space for organizations. Steve Moore outlines a framework to make the CA work using Key Leader Engagements (KLEs). This is an intriguing proposal in light of CF successes in Afghanistan in conducting these types of operations. The other articles point to education, or to training opportunities to build capacity. One weakness of this section, however, is a lack of discussion of measures of effectiveness. It is one thing to talk theory, process, and training, but it is really all for nothing if there is no framework for the objective evaluation of results.

It must be noted that even the Conclusion added value by challenging the value of the CA quite objectively. After more

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than 200 pages and 20 articles espousing the benefits of CA, Dr. Leuprecht of Canada's Royal Military College provides another good splash of cold water to dampen our enthusiasm, and he continues the challenge presented in the book to maintain open thinking on the issue.

Overall, this book is a good start to building up this field of endeavour. Each article is crisp and well-written. One can approach the topic from a number of angles with ease. For instance, those new to the CA would be well served just to read Part 1. Those with more knowledge could read some of Part 2 to get out of their purely-military viewpoint, and to widen their understanding of other government departments (OGDs).. Conversely, exercise planners would be well served by focusing upon Part 5, while those undertaking campaign planning should focus upon using Parts 3 and 4 as detailed narrative after-action reports.

This book is thus recommended to any involved in using the Comprehensive Approach within Canadian Forces opera-

tions. Increasingly however, this appears to apply to the entire Departmental organization.

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Major Derek Spencer is an alumni of 1 Combat Engineer Regiment and the Mapping and Charting Establishment. He recently served as the Current Plans Officer within the Directorate of Geospatial Intelligence, and is presently employed as the Chief CIED at the NATO Rapid Deployable Corps Headquarters in Istanbul, Turkey.

BOOK REVIEWS

Wired for War: The Robotics Revolution and Conflict in the 21st Century

by P. W. Singer

London: Penguin Books, 2009

512 Pages, \$20.69 HC

ISBN: 978 1594 201 981

Reviewed by Scott Nicholas Romaniuk

If ever a single and concise literary work was able to achieve a productive exploration of technology, politics, economics, law, and war, P. W. Singer's *Wired for War: The Robotics Revolution and Conflict in the 21st Century* not only does so, it stands as the most current and compelling centerpiece of the current academic discourse that will surely be instrumental in propelling the concept of robotic warfare toward paradigmatic status.

In the last several years, a newer and fitter form of warfare and approach to orchestrating combat has emerged, promising to forever alter the fundamental principles of armed conflict and the composition of modern militaries. That is, the digital age in combination with the need and desire to *remove*, or at least *distance*, the human component from battle, has led to the production and deployment of more than 12,000 robotic systems fighting alongside their human counterparts in Iraq alone. The result is, as Singer states, one in which "... unmanned planes, robot guns and AI battle managers are turning [the] experience of war into something else altogether."

This book serves as a critical ontological tool in several fields of scholarly analysis, casting analytic light upon the contentious ground that the very practice of war is regulated so artificially as to ascribe allegedly and profoundly immoral and unethical advantages to those conducting it. Thus, "the

revolution in robotics," opines Singer, "is forcing us to reexamine what is possible, probable, and proper in war and politics." Although this is a determined and praiseworthy endeavor, Singer's work suffers from certain theoretical and substantive limitations, but not to an extent that its contribution to its fields of discourse might diminish considerably.

Singer brings his experience and expertise to bear on his book's 22 chapters, the pace and organization of which are all well traced and, developed, and are complementary of one another. As Director of the 21st Century Defense Initiative at the Brookings Institution, Singer has worked in the Pentagon, and has consulted for the Departments of Defense and State, the Central Intelligence Agency (CIA), and Congress. He has also authored two previous books, *Corporate Warriors*, and *Children at War*, and has also written for publications such as *The New York Times* and *Foreign Affairs*.

The first nine chapters that comprise Part One immerse the reader within both a general overview of the prolific changes taking place in the fields of warfare in technological terms and the general impact that the robotics age has meant for those who practice war, and those who are the recipients of its violent means and aims. These chapters exemplify the fundamental shift in the manner in which we now view the great-war paradigm, its nuances, and critical effects upon all involved. The initial chapters introduce readers to the four fields of "warbot" application, including those of: land, sea, air, and space. The functionality and effectiveness of the various designs of these systems are described in detail, and, in each case, Singer reveals some of the restraints placed upon their capabilities simply by virtue of their artificial quality. Given their progress, and in spite of the progress that has yet to be made, Singer describes how these machines emerge from the United States (US) Army's \$340 billion Future Combat Systems (FCS) program.

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In Part One, Singer also unearths the historicity of the robot (r)evolution, discussing ‘the loop’ that we began to emerge from long before robots made their way onto battlefields. From the Norden bombsight of the Second World War, to the AEGIS computer system introduced in the 1980s, reference is made to the stepping-stones of warbots and technology-informed modes of conflict, defence, and even deterrence, if only conceptually. Emphasis is also placed upon the dangers involved in bringing together advanced weapons capabilities, and the exigency of responding to perceived threats in times of and fields of combat. Singer paints a striking portrait in which the technological aspects of new weaponry have (in the case of AEGIS) stolen our capacity to exercise sound and independent human judgment. The symbiosis expressed between humans and machines in these initial pages brings to the fore the deleterious reality that human roles were and continue to be redefined, and in a relatively alarmist sense, in a manner that has been accepted without thought or due consideration.

Part Two captures the ‘advancement’ of advanced warfare, the potential shortcomings to increased dependence on robots in war, the psychology of warbots, the mutable symbiosis between machines of war and the soldiers whom they fight along side, as well as the implications that robotic warfare brings to the realms of law and human rights. The opening chapter delves into the elements that are driving the US military toward using more unmanned systems, explaining that, “... even the popularity of the new technology can end up hampering the development of doctrine to guide its uses.” We are in an age of war, momentarily engaged in several land-based campaigns and numerous operations the world over; so it is difficult for soldiers on active duty to make sense of a lack of overall doctrine in the field as technology systematically changes it on a continual basis behind their backs.

Singer further postulates the difficulty in “... trying to figure how to use a revolutionary new technology” while in the middle of a war (particularly one as seemingly abstruse as the Global War on Terror [GWOT]), and that the lack of peacetime study and experimentation should very much be taken into consideration. Chapter fifteen is of particular significance, given its focus upon the psychology of warbots. It is argued that, “... the human psychology will be a key determinant of robots’ impact on war,” compelling many to wonder what changes will come as a result of removing the human motivation and emotion from conflict, which has usually been the key to victory or defeat. Of not less importance are the implications that robotic warfare has on international legal frameworks and the concept and practice of human rights; however, considerably less attention is paid to these critical issues, even though Singer underscores the impact that the new robotics warfare has upon the pillars of international humanitarian law.

In the final pages, Singer makes loose reference to the legacy that this budding approach to warfare will have in other reaches of human achievement or demise; but he leaves these notions as loose and ambiguous expressions that are somewhat confusing. Although this book brings together a remarkable range of research, fusing primary and secondary research with the author’s own analysis, its shortcomings might poke and prod at readers’ attention throughout. Singer’s investigations at select points draw attention to the fact that he is not a historian by trade. Despite this, however, he makes repeated attempts to casually link the events of recent wars with the future course of human conflict. His analyses lack the necessary empiricism at certain points to depict the essential nature of his arguments and perspectives.

Given the impression elated to readers with respect to the potential of this new form of warfare, Singer’s investigations would have benefited from an assessment of the US’ failings to achieve its objectives in conflict zones where the technological advantage rested decisively with the US and its allies. The factors that empirically show the correlation between victories as a result of technological advantage and defeat in spite of it are absent. Moreover, excessive analogizing and reference to science fiction series might not appeal to all readers, who may be wary of over-sensationalizing on such subject matter. Readers will also notice a lack of surveying of the various types of machines currently employed by the United States – a feature some might expect and be excited over given audiences interest in what is currently ‘out there.’

Despite these observations, *Wired for War* is as wide-ranging and inclusive as it is interesting. The author skillfully calls attention to some of the more basic concepts related to this field of analysis, but might be seen as undertaking too ambitious a project for a single book. The scope alone, while accommodating a broad spectrum of topics and questions, is the book’s primary trait preventing it from serving-up the necessary in-depth focus that so many of the topics touched upon require and deserve. However, so long as the robotic revolution continues to take place on the battlefields, be it on land, at sea, or in the sky and in space, Singer’s work will find a recognizable place in literary fields for years to come. It lends itself easily, not only to scholars, but also to practitioners and inquisitive minds alike.

Scott Nicholas Romaniuk is a Canadian graduate researcher at the University of Aberdeen, Department of Politics and International Relations, and is affiliated with the University of St. Andrews, Centre for the Study of Terrorism and Political Violence. He has previous service in the Canadian Forces, and he focuses specifically on military and strategic studies, and international security and politics.

BOOK REVIEWS

The Civil War of 1812: American Citizens, British Subjects, Irish Rebels and Indian Allies

by Alan Taylor

New York: Alfred Knopf, 2010

620 pages, \$25.50 HC

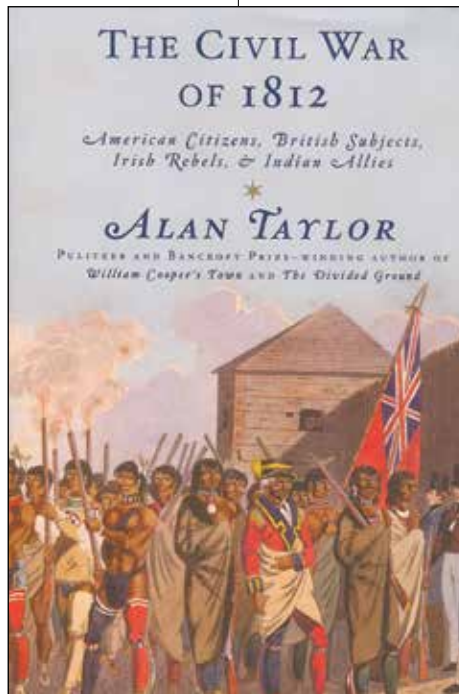
Reviewed by John R. Grodzinski

The *Civil War of 1812* presents the Anglo-American conflict fought between 1812 and 1815 as a series of civil clashes along the frontier of Upper Canada. According to Alan Taylor, who teaches American and Canadian history at the University of California, the War of 1812 has four dimensions, each a contest in its own right. The first was the continued struggle between Loyalists and Americans for the control of Upper Canada; next was the political partisanship in the United States that nearly ignited a war between the states; the third was the importation of the struggle for Irish independence from Britain to the frontier of British North America; and the final contest was between the native peoples living on either side of the border. At 620 pages, the book is a hefty and sometimes dense study that seems not as deeply researched or as clearly written as the jacket notes suggest.

To demonstrate his case, Taylor concentrates upon events along the borderlands of Upper Canada. He believes that throughout the three campaign seasons, neither Britain nor the United States was capable of asserting their vision of North America, either imperial or republican, over the other, and both decided to co-exist. This argument assumes that Britain's ultimate goal was to smash the new republic, which is false. Because the author limits the British perspective of the war to events around Upper Canada, much of the British context of the war is lost. For example, British political leaders are reduced to an anonymous group known as the "Imperial Lords," (this term is used frequently, and examples appear at pp. 78, 150, 172, 403, and 435). George III, who was ill at the time and had no direct bearing on the war, is mentioned four times, while the Prince Regent, who assumed many of the monarch's responsibilities in 1811, is only mentioned in passing. Prime Minister the Earl of Liverpool is ignored, while Earl Bathurst, the Secretary of State for War and the Colonies, and the cabinet official responsible for the conduct of the war, is only mentioned once. Unlike their nameless British counterparts, American political and military leaders, such as James Madison, James Monroe, James Wilkinson, Jacob Brown, Thomas Jefferson and even George Washington, appear throughout the text.

Thus British strategy, at least until 13 October 1812, is presented as a struggle between the dashing and powerfully-built Major-General Isaac Brock and the cautious Captain General and Governor-in-Chief of British North America, Lieutenant-General Sir George Prevost, while the rationale of the massive reinforcement sent by Britain to North America in 1814 is never fully explained. On the other hand, the war in Europe against Bonaparte is hardly described. The Prince Regent's instructions to Prevost, written in 1811, were clear in that he was to avoid any situation that would cause a large-scale diversion of resources from Europe. However, when the circumstances dictating that strategy changed, Britain did send substantial reinforcements to North America in 1814, not so much to humble the Americans, but to secure the frontier of the Canadas in anticipation of the coming peace talks.

While Upper Canada was certainly the cockpit of the North American war, the author's decision to restrict the discussion to that province ignores the remainder of British North America. Little consideration is made of Lower Canada's largely French population, which totalled approximately half of British North America's 600,000 people. Lower Canada is described curiously as "... a Catholic country occupied by British troops" that "... resembled Ireland with a French twist." Yet, that province played an important role in the war effort. In the Maritimes, Nova Scotia and New Brunswick shared strong cultural and economic ties with New England, so why is there no consideration of the republican-imperial dynamic that occurred in that region?



The Native peoples factor prominently in the text, and, as the author acknowledges, they were instrumental in successfully challenging American plans during 1812 and 1813. With the peace, many of Britain's native allies found themselves in American territory, and the author contends that the Americans exploited the "ambiguous" peace treaty to consolidate their dominion over natives within their territory, ending British influence over them, thereby allowing the Americans to gain continental predominance. The apparent abandonment by Britain of their native allies is a common theme in War of 1812 historiography. However, little acknowledgement is given to British efforts to secure native rights in the ninth article of the treaty, and the American decision to ignore these clauses.

There exists a nagging host of minor errors throughout the book. None are terribly serious, but they are enough to distract the reader's attention, and to question the author's understanding of the British perspective of the war. Quebec's defences did not include a citadel in 1785; Guy Carleton

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would certainly not have described himself a “loyal Irishman;” the number of British subjects in “Canada” in 1785 is said to be 100,000 people, but the geographic extent of this territory is undefined. Why not use census data from the early-1800s? Peter Hunter is wrongly identified as the Governor-General of Canada, when he was, in fact, Lieutenant-Governor of Upper Canada between 1799 and 1805; the wrong date is given for the repeal of the Orders in Council in 1812; and it was the Prince Regent, and not Parliament, who ratified the Treaty of Ghent on 27 December 1814.

While this book is disappointing from the British perspective, it offers several interesting insights: a population that had not been completely separated by the American War of Independence became more distinctive in the aftermath of the War of 1812; and the only quantifiable outcome of the conflict was the confirmation of the existing border between America and British North America. The author also provides interest-

ing examples of contrasts between Upper Canada and the American republic before the war, such as the lower tax burden carried by Upper Canadians as compared to that borne by the Americans. Taylor’s descriptions of the interactions between soldiers and civilians are vivid, and in contrast to other works. For example, the operations of the two fine American divisions in the Niagara Peninsula during the summer and fall of 1814, while valiant, did little towards securing American victory, and they actually “... wasted the nation’s finest troops in futile battles.” Tactical successes cannot make up for strategic failure, and this appears to be the author’s lesson of the war, that, superficially at least, the post-war American idea of victory was a crafted mirage.

Major John R. Grodzinski, CD, PhD, *an armoured officer, teaches history at the Royal Military College of Canada. He is a subject matter expert on the War of 1812.*

A Bard of Wolfe’s Army: James Thompson, Gentleman Volunteer, 1733-1830

Earl John Chapman and Ian Macpherson (eds.)

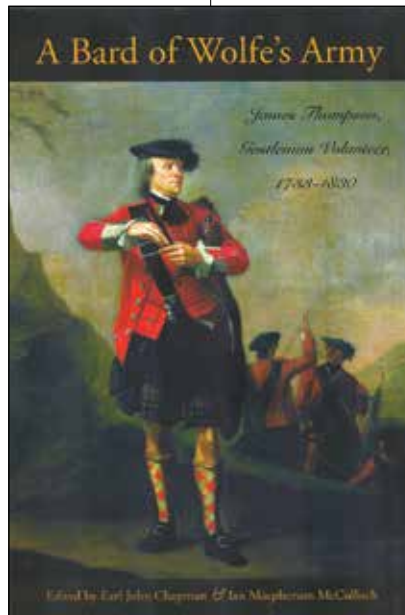
Montreal: Robin Brass Studio, 2010

361 pages, \$34.95 PB

Reviewed by John R. Grodzinski

This book is based upon a remarkable collection of personal anecdotes found in an old letter book held by the *Bibliothèque et Archives nationales du Québec*, and a similar document that was acquired by the Stewart Museum of Montreal in 2009. Accounts by members of the army rank and file from the Seven Years’ War are rare, and thus, the publication of anecdotes from a veteran of the siege of Louisbourg and the 1759 and 1760 sieges of Québec is an important addition to the published literature of this period.

Sergeant James Thompson enjoyed a long life that included military service with the 78th Regiment of Foot, the famous Fraser Highlanders of the Seven Years’ War. When that regiment was being raised in 1757, Thompson, a member of the Highland gentry that was disenfranchised following the 1745 uprising, hoped that the patronage of Charles Baillie, his best friend and commander of the Fraser’s grenadier company, would help him secure a commission as a junior officer. This connection failed, and Thompson chose instead to enrol as a gentleman volunteer and serve as a sergeant until a vacancy became available in the grenadier company.



Unfortunately, his patron Baillie was killed on the beaches near Louisbourg in 1758, ending any hope of preferment. Thereafter, Sergeant Thompson enjoyed a charmed existence as he survived every major action in which his regiment participated without receiving a scratch. His adventures, left to posterity in 44 anecdotes covering his exploits with the Fraser’s, also include his reminiscences as Overseer of Works for Quebec, and experiences during the siege of Quebec during the American War of Independence. These ‘anecdotes’ owe their existence to Thompson’s son James, who began transcribing his father’s war stories in 1830, providing the rationale for the book’s title, for the senior Thompson was a bard, which, in old Scottish culture, was a collector of history and genealogy in the form of oral history.

The book is organized in three parts. The first is a detailed biographical essay on James Thompson, and it is followed by the centrepiece of the book containing all the anecdotes, collated from the two previously mentioned letter books, and two other sources. The final section provides more than 70 pages of biographical notes pertaining to the key individuals from the period, or those mentioned in the text. The anecdotes touch upon many aspects of the life of an 18th century soldier-too many to describe here, so what follows is a taste of what is offered. Anecdote 4 recounts the landing at Louisbourg, and it was first published in the Québec newspaper *Star and Commercial Advertiser* in 1828. Here, we learn of Captain Baillie’s death: “My Captain, poor fellow! ... for whose sake I came away from Scotland, and who was my best and most intimate friend, poor Captain Baillie! He was sitting on the opposite side of the Boat, and was struck so mortally ... that he expired without the least struggle.” Moving ahead to September 1759, when the British

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line advanced during the battle of Québec in 1759, Brigadier-General James Murray, the commander of the brigade that included the Frasers, cried out: "... the Piper was missing, and he knowing well the value of one on such occasions, he sent in all directions for him, and he was heard to say about, 'Where's the highland Piper!?' and 'Five pounds for a piper,' but devil a bit did the piper come forward the sooner." Thompson was an admirer of Major-General James Wolfe, and he lamented his death: "Oh! He was a noble fellow! And he was so kind and attentive to our men, that they would have gone thro' fire and water [which they did] to serve him!"

The editors, both respected for their work on the history of the 78th Fraser Highlanders and Highlanders in the Seven Years' War, were wise in annotating the anecdotes, and their notes define period military terminology, explain obscure cultural references, offer biographical information, and speculate upon whom Thompson might have been referring to when he

was silent on a name. An example is contained at Page 177, Note 146, where the editors assume Thompson was making reference to Brigadier-General Robert Monckton. In acknowledgement of the challenges of working with transcribed oral accounts, the authors have also corrected several passages where Sergeant Thompson's "memory is hazy," (Page 124, Note 34) or where unintentional errors, such as 'James Jr.' inserting himself into one account, occurs.

The publication of the oral tales of a sergeant from the Seven Years' War, who was present at so many important events in Canadian history, is welcome. It is well illustrated, including a 14 plate colour album, and period and modern maps as only the wonderful book designer Robin Brass can provide. *A Bard of Wolfe's Army* is a perfect example of how a book of this type should be compiled, annotated, designed, and presented.

Steel Cavalry - The 8th (New Brunswick) Hussars and the Italian Campaign

by Dr. Lee A. Windsor

Fredericton, NB: Goose Lane Editions, 2011

199 pages, \$18.95

ISBN: 978-0-86492-657-9

Reviewed by Michael Cessford

Dr. Windsor, a military historian of note and a former Hussar himself, is well qualified to pen this history of the service of the 8th (New Brunswick) Hussars in Italy during the Second World War. In addition to his impressive academic credentials and a growing and highly-regarded record of publications, he has, as well, seen contemporary conflict first hand, having observed, in 2007, the operations of the Canadian Joint Task Force in Kandahar Province, Afghanistan.

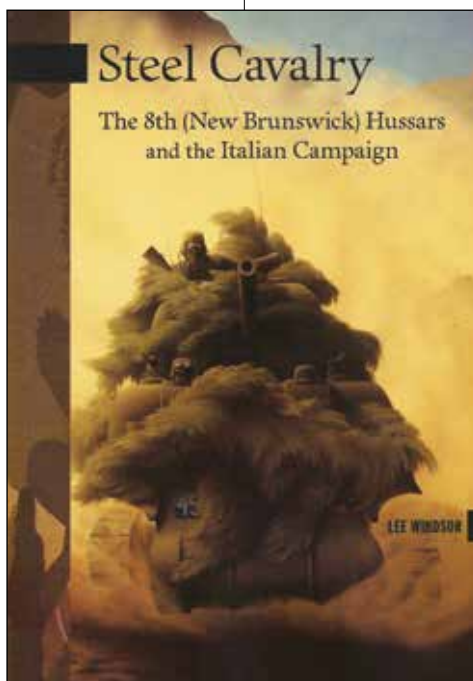
It is important to begin by defining what this book *is* and *is not*. *Steel Cavalry* does not aspire to be an overly detailed or academic analysis of the combat operations of a Canadian armoured regiment in Italy in the Second World War. Rather, as one of the volumes of the New Brunswick Military Heritage Series, it seeks to provide the lay reader a sense, in just under 170 pages of text, of the experiences of a provincial militia unit that was mobilized as a motorcycle regiment in 1940, was converted to tanks a year later, and then, that same year, was sent overseas as a unit of the 5th Canadian Armoured Division. The 5th

Division deployed into Italy, as part of the 1st Canadian Corps, late in 1943, saw its first combat along the static Ortona front, and then fought in two major offensives in 1944: *Diadem* (the breaking of the *Hitler Line* and attack into the Liri Valley) and *Olive* (the penetration of the Gothic Line, and the drive into the Romagna Plain).

Dr. Windsor makes effective use of first-person accounts to provide vivid and compelling images of Hussars engaged in battle with a seasoned and well-prepared enemy. In these paragraphs, one is repeatedly struck by the everyday courage and resolution of these Canadian troopers – truly warriors for the working day.

The essence of this book is its description of armoured combat in the close and difficult terrain of the Italian mainland.

In general, tactical operations in Italy demanded especially careful cooperation between all combat arms. Within the 5th Division, the 8th Hussars clearly excelled in providing the type of intimate tank support that was so often essential in getting the infantryman successfully forward on to his objective. This was superbly demonstrated during the 'break-in' battle at the Gothic Line, when Hussar tanks closely supported the assault battalions of the 11th Infantry Brigade at Montecchio. In what was virtually an attack off the line of march, the two leading infantry battalions, each with a Hussar squadron, breached the well-placed and equipped German defences, opening the way for the rest of the 5th Division. A similar breakthrough in the area of the 1st Canadian Infantry Division put paid to any German hopes of holding the Gothic Line. Indeed, the Germans were



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only saved from complete catastrophe by the failure of the British 8th Army to effectively exploit the 1st Canadian Corps' success – the result of poorly placed Army reserves.

The Hussar success at Montecchio was replicated two weeks later when they again supported the 11th Brigade in a vicious two-day struggle that broke the new German defences established along the Coriano Ridge, and opened the way for the 1st Corps' drive to Rimini. This was a second, signal success, and clear testimony to the tactical skill and courage of the Hussars.

The battle for Coriano Ridge marks the culmination of Dr. Windsor's work, as he chose not to examine the role played by the Hussars in Italy in the last months of 1944 and

the first weeks of 1945, nor the Regiment's final operations in Northwest Europe. This is, in my opinion, a shortfall in this work – but not a serious one, as he clearly has succeeded in his intent to convey a Hussar's view of tactical combat in Italy during the Second World War.

This work illuminates an area of tactical combat not well studied. As such, it will be a worthwhile addition to the library of any student of the Canadian soldier's combat experience in the Second World War.

Michael Cessford is a retired armour officer who holds a Ph.D. in history. Canadian Army operations in Italy during the Second World War were the subject of both his MA and Doctoral theses.

The Valley's Edge. A Year with the Pashtuns in the Heartland of the Taliban

by Daniel R. Green

Sterling, VA: Potomac Books, Inc., 2011

288 pages, \$29.95 HC.

Reviewed by Emily Spencer

The *Valley's Edge* is a personal memoir by Daniel R. Green from when he served as the US Department of State political advisor to the Tarin Kowt Provincial Reconstruction Team (PRT) in Uruzgan Province, Afghanistan, 2005-2006, and as a naval reservist filling the position of liaison officer to the Interagency Provincial Affairs office at the US embassy in Kabul, 2009-2010.

The book is a very gripping and frank account of the American efforts to combat insurgency and to remove the Taliban from the remote and desolate province of Uruzgan in the south of Afghanistan. The writing is crisp, clear, and rich in description. Not surprisingly, the narrative moves quickly.

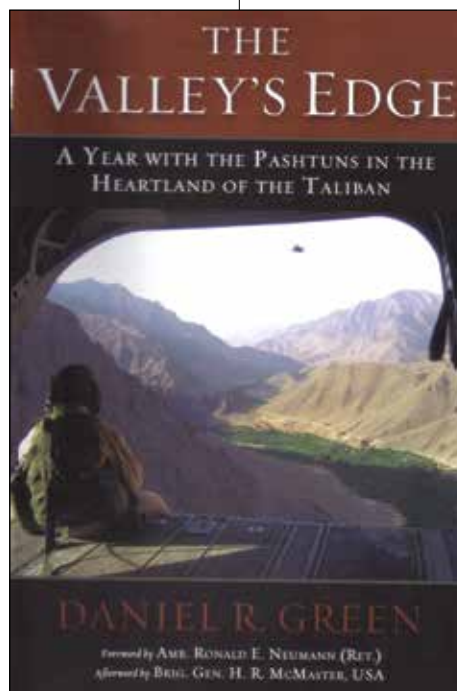
The Valley's Edge highlights the efforts and challenges of the PRT concept, an American experiment initiated in 2002 in Afghanistan. The reason for the PRT experiment was the American realization that after years of conflict in Afghanistan, there no longer existed functioning Afghan government structures, or a trained, competent Afghan public service. Organizationally, PRTs comprise a US Civil Military Affairs team, a military force protection element, police mentors, a development advisor, and a diplomat. These teams were designed to provide such advice and services as access to developmental expertise and

money, technical knowledge, diplomatic skills, political skills and expertise, and the mentoring of government institutions and leaders, to name but a few. Notably, this initiative also heralded a dramatic change for the US diplomatic corps. It required them to leave the relative safety of the embassy and the normal sphere of diplomacy to travel into the interior, with all the dangers and hazards that that entailed.

The field deployment of political advisors was the lure for the author, who volunteered for the assignments. His account is exceptionally enlightening, starting with his hire into the public service as a political appointee as a reward for working on the 2000 George Bush presidential campaign. He covers his initial employment at the Pentagon where he was sent, pending his 'permanent' assignment. Of importance here is his description of the 11 September 2001 terrorist attack on the Pentagon. Although this is brief, he does provide an interesting window on the tragedy and its impact.

Green then quickly turns to his Afghanistan tour. He is a talented writer, and his description of people, places, and events is revealing. Herein, he provides that rare balance between too little and too much detail, allowing his reader to feel satisfied with regard to content, but not to get bogged down by minutia.

The fact that the work is a personal memoir resonates throughout. Nonetheless, it provides a clear, detailed explanation of the personalities, important locations, and key events that all illuminate the context and background to the US efforts and challenges in 2005-2006 in Uruzgan Province. It is a brilliant snapshot of the area in question during the period under examination. Green nicely lays out the US government's intentions and actions, the host nation (HN)



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realities, particularly the complex power relationships and rivalries, as well as the overall operating climate. He does a commendable job of shedding light on Afghan character, customs, and practices, especially with respect to political intrigue and corruption. Of great interest is his explanation of how provincial governments work and their funding mechanisms, given the absence of any central cash infusions.

Although specific to a narrow spectrum of time and a focused geographical area, Green's insight is informative and extremely interesting. The author clearly provides a vivid picture of the complexity of Afghan politics, tribal relations, culture, and the challenges of Westerners working within this reality, particularly in light of their superficial comprehension of Afghans, and their holding of many unrealistic expectations. Not surprisingly, however, as is normally the case with personal memoirs, his biases are clearly evident.

Following this first account, Green's narrative jumps to his return to the country in 2009. The author reveals that although many improvements had been made since his departure three years prior, many of the same problems he had experienced remained. While this deployment represents a short portion of the book, it is also extremely interesting.

The book itself is a handsome production that exudes quality. The inside covers provide a map of Uruzgan Province and the country of Afghanistan, which make it easy for the reader to flip either to the front or the back to situate themselves geographically within the narrative. A total of 34 quality black-and-white photographs lend visual support to the text. Key players, locations, terrain, and general conditions leap from the photos to help place the story in perspective. A detailed index, a chronological timeline for Uruzgan Province, and a guide for abbreviations and acronyms further assist the reader in navigating through the story.

Overall, I strongly recommend *The Valley's Edge* to anyone who is interested in Afghanistan and counter-insurgency. It is an excellent account of the difficulties of operating in Afghanistan, with its complex cultural, tribal, and political make-up. Its insight and lessons, although focused mainly on Uruzgan in 2005 and 2006, spill over the geographic and time constraints and offer a wider understanding of the region, its people, and its challenges to Westerners.

Emily Spencer, PhD, is a Research Associate with the Canadian Special Operations Forces Battle Laboratory. She is also an Adjunct Assistant Professor at the Royal Military College of Canada.

Designing Resilience

by Louise K. Comfort, Arjen Boin, and Chris C. Demchak, (eds)

Pittsburg, PA: University of Pittsburg Press, 2010.

349 pages, \$US 32.50

ISBN-10 0822960613

Reviewed by Bernd Horn

The subject of resilience has recently become a relatively hot topic. This is not surprising, considering the plethora of traumatic events that seem to inundate modern societies. From pandemics and horrific mass casualty terrorist attacks, to natural disasters such as Tsunamis, flooding, wild fires, and a record number of hurricanes and tornados, the earth's citizens are increasingly faced with overwhelming shock. As a result, the concept of resiliency and its applicability has spread from a military or emergency services worker focus to a broader encompassing application.

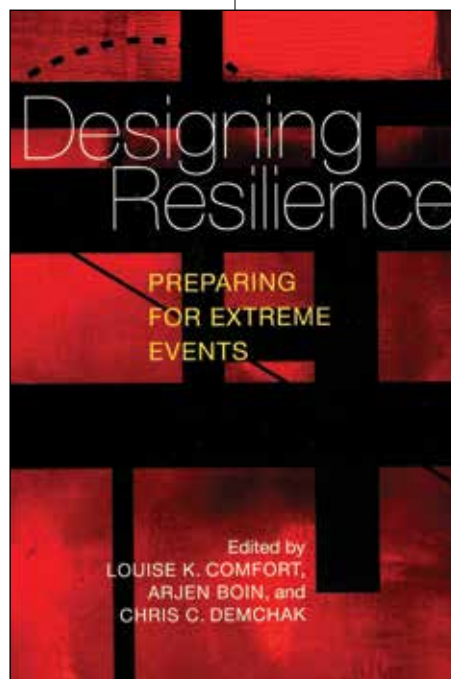
As such, *Designing Resilience*, which is based upon papers stemming from two international workshops on the subject, tackles the complexity of resilience, and attempts to fill the knowledge void in this field. Specifically, it examines the character-

istics, causes, consequences, and measurement of resilience. As the editors clearly state, the collection of essays "... presents us with a clear understanding of what resilience is – and what it is not."

The underlying definition of resiliency in the book is given as "... the measure of a system's, or part of a system's, capacity to absorb and recover from the occurrence of a hazardous event." The book consists of 14 chapters that address various aspects of resiliency. Topics range from a discussion of the concept itself, to designing governmental policy, lessons learned, and designing societal disaster resiliency strategies.

The book is very well written, although the reader must be warned that many chapters are technical in nature and scientifically based. Nonetheless, all are logical, well-laid out, and easy to follow. Many include graphs and charts that assist the reader with absorbing the concepts and arguments put forward.

Although the work specifically covers resiliency, this book is not for those looking for solutions to individual or small team resiliency. Rather, it is aimed more at the organizational level. In fact, it focuses upon dealing with large-scale societal responses to catastrophic events. Importantly, it provides some excellent case studies such as Hurricane *Katrina*



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and '7/7,' – the London subway bombings. In all cases, the various contributors provide important lessons and observations, as well as interesting statistics, such as the amount of money spent on security; the percentage of Muslims who are estimated to sympathize with violent response to world political events; and the number and types of casualties stemming from the respective disasters covered.

In sum, the volume is an excellent scholarly work dealing with resilience in the context of catastrophic societal events. The chapters, as already noted, are well written and researched. The contributors are, on the whole, scholars focusing upon

emergency management and/or crisis/disaster response. The book includes an extensive, detailed list of references provides the reader with an excellent starting point for further examination, if desired. Moreover, the book contains a comprehensive index. In the end, this publication is a great resource for anyone interested in resiliency whether their focus is at the individual, organizational, or societal level.

Colonel Bernd Horn, OMM, MSM, CD, PhD, is the Chief of Staff Strategic Education and Training Programs at the Canadian Defence Academy. He is also an Adjunct Professor of History at the Royal Military College of Canada.

Escape, Evasion and Revenge: The True Story of a German- Jewish RAF Pilot Who Bombed Berlin and Became a POW

by Marc H. Stevens

Barnsley, South Yorkshire: Pen & Sword Books, 2011

223 pages, £12.99 paper

ISBN: 1-84884-554-5

Reviewed by Jonathan F. Vance

While researching a book on the Great Escape years ago, I occasionally came across the name Peter Stevens in memoirs and interviews. There were mentions that he was actually a German Jew serving in the RAF under an assumed name, but no hard evidence that this was anything but a presumption. Not until I read Marc Stevens's fascinating biography of his father did I learn the full story.

And it is a remarkable story. Peter Stevens was born Georg Heil, the son of a prosperous Jewish publisher in Hanover whose premature death put the family into a downward spiral. Financial problems and the persecution of German Jews convinced Frau Heil to send her three children to England and safety. Then, with the family's savings exhausted and the window for immigration firmly closed, she quietly took her own life. Georg eventually joined the RAF (using the name of a dead schoolmate), trained as a pilot, and did something that might have been unique: he bombed the city in which he had been born and raised. Shot down and captured in September 1941, Heil (as Peter Stevens) spent almost four years in captivity, his true identity a secret to all but his closest confidantes.

Much of this pre-1939 history was unknown to the family that Stevens raised in Montreal after the war (he had emigrated to Canada to work with the Canadian subsidiary of the

Bristol Aeroplane Company, and joined 401 Squadron RCAF Reserve because he missed the camaraderie of the air force), and remained hidden from Marc Stevens until after his father's death. As a biographer, then, he faced unusual challenges. He had to capture the life of a man he thought he knew, but whose most formative experiences were largely a mystery to him.

So much could have gone wrong with a biography written on these terms, but Marc Stevens has succeeded admirably. This is not a rose-tinted hagiography by an awe-struck son; rather, it is judicious and even-handed – "warts and all," to use the cliché. Stevens was a remarkable man, but in some ways, not a very likeable man. He *stole*, and then *wasted*, the last of his mother's money, which had been sent to Britain to establish the three children. When that money was gone, he dabbled in petty crime and eventually landed in jail after being convicted of theft. Furthermore, he was a cold and distant husband and father, unable to display emotional attachment or even relate to others on terms of affection.

But he was never short on courage, and here the depth of the author's research helps him to recreate the very difficult early days of Bomber Command, when accuracy was low, casualties were high, and air crew were overworked. Stevens and his crew once flew five operations in nine nights. A fine pilot, Stevens once brought his *Hampden* bomber home on one engine and without functioning flaps or undercarriage, saving the lives of badly wounded crewmen. And although it would have been much safer to sit quietly in captivity and avoid drawing attention to himself, Stevens became an inveterate escaper, exploits that earned him the Military Cross after the war. This is a wartime career that would make any son proud, but Stevens' real triumph is in writing a biography that will satisfy the most discerning historian.

Jonathan F. Vance, PhD, is Distinguished University Professor in History at Western University in London, Ontario.

