THE ARMY DOCTRINE AND TRAINING BULLETIN

Canada's Professional Journal on Army Issues

ISSN 1712-9745

Published Quarterly

The Army Doctrine and Training Bulletin

Canada's Professional Journal on Army Issues

This is an official publication of Land Force Command and is published quarterly. *The Army Doctrine and Training Bulletin* is dedicated to the dissemination and discussion of doctrinal and training concepts, ideas, and opinions by all army personnel and those civilians with an interest in doctrinal, training, and other military matters. Articles on related subjects such as leadership, ethics, technology, and military history are also invited. Considered, reasoned debate is central to the intellectual health of the Army and the production of valid doctrine and training policies. Articles promoting thought and discussion are therefore welcome. All ranks and personnel from other environments are encouraged to contribute. Opinions expressed in the articles remain those of the author and do not represent departmental or Canadian Forces policy. The doctrine, training, and other updates do not represent authority for action on that particular topic.

ARTICLE GUIDELINES

Articles of any length will be considered for publication, the ideal length being 3,000 to 6,000 words. Articles can be submitted in either official language. Usage and spelling are in accordance with *The Canadian Style: A Guide to Writing and Editing* (Minister of Supply and Service 1997) and *Le guide du rédacteur de l'administration fédérale*—both are available via the Internet and at libraries or bookstores and *The Concise Oxford Dictionary* or *Le Petit Robert*. Supporting tables, charts, and images must be provided by the author and should not be embedded in the text. Articles must include endnotes. Contributors must include a brief biography citing their academic background, noteworthy military or other experience, key courses and current position. Articles can be submitted via e-mail or regular mail (a disc copy must be included). All submissions will be reviewed by an Editorial Board, and contributors will be notified by the Managing Editor on the status of their submission. The Managing Editor reserves the right to make minor editorial changes to grammar or style. Authors will be contacted should their submission require revision.

STAND-UP TABLE (COMMENTARY) GUIDELINES

Contributions to the Stand-Up Table should be no longer than 1000 words and can be made anytime. Every effort will be made to publish these in the earliest issue possible. Comments on articles should be submitted as soon as possible following the publication of that article.

BOOK REVIEWS

Contributions to the Book Review section should be between 1,000 and 2,500 words. Guidelines for the preparation of book reviews can be obtained from the Managing Editor. Where possible, an electronic copy of the dust jacket of the book being reviewed should be provided.

IMAGES AND GRAPHICS

Images and graphics cannot be colour or shade dependent. Graphics must be clear and simple. Electronic copies are acceptable, 300 dpi, JPEG files.

DEADLINES

Please contact the Managing Editor to confirm submission deadlines.

DISTRIBUTION AND ELECTRONIC COPIES

The Bulletin is distributed throughout the Army and to select NDHQ, Maritime Command, Air Command, and DISO addresses. Copies are also provided to defence-related organizations, allied armies, and members of the public and academia. Inquiries regarding distribution are to be made to the Managing Editor. An electronic version of the Bulletin is available at www.army.dnd.ca/ael/.

CORRESPONDENCE

All contributions and correspondence should be sent to the Managing Editor, Major Shane B. Schreiber, as follows:

The Managing Editor
The Army Doctrine and Training Bulletin
Director General Land Combat Development
Fort Frontenac
PO Box, 17000 Stn Forces
Kingston ON K7K 7B4

Telephone: (613) 541-5010, extension 2465
Fax: (631) 541-5903
Internet e-mail: gschreiber.sb@forces.gc.ca

EDITING AND LAYOUT

The final editing, layout, and proofreading of each issue is performed or contracted by the Army Publishing Office, Land Force Doctrine and Training System, Kingston, Ontario.

ISNN 1480-9826 Publication Agreement No. 1882732

Table of Contents

A Part of Our Heritage

The First Regulars in Canada: The Carignan-Salières Regiment

In 1663, King Louis XIV established royal rule over France's overseas possessions, taking control away from the private charter companies who had manage these colonies. Continued Iroquois attacks had limited the expansion of New France and considerable military assistance was required to overcome this threat, resulting in the dispatch of regular troops to garrison New France. The Carignan-Salières Regiment was created by the amalgamation of two older units, which was then brought up to strength with 20 companies. The Regiment arrived in Canada in 1665 and immediately set about constructing a chain of forts along the Richelieau River. In January 1666, 300 members of the unit accompanied by 200 Quebec militia invaded Iroquois territory and after destroying several villages and grain, returned to Quebec having lost 100 men to the weather. Later that September, 1,200 men from the Carignan-Salières Regiment and militia, moved against the Mohawk in the Lake Champlain region, where they again destroyed some abandoned villages before returning to their base. Although not defeated, the strength and determination of French operations convinced the Iroquois to negotiate a peace with the French, which lasted for 20 years. Having done its job, four companies of the Carignan-Salières Regiment returned to France in 1667, while the remainder were encouraged to settle in the colony. By 1668, four companies of the regiment remained stationed along the Richelieu River and the remaining companies were finally dissolved in 1671. Some 400 officers and men chose to stay in Canada.

The image depicts officers and soldiers of the Carignan-Salières Regiment between 1665 and 1668. Not only was this the first regular unit to serve in Canada, it was also one of the first line regiments of the French army to be dressed in uniform. (Courtesy Parks Canada)

From the New Managing Editor of *The Army Doctrine and Training Bulletin*

by Major S.B. Schreiber, CD

It is with some trepidation that I take over as the new Managing Editor of *The Army Doctrine and Training Bulletin: Canada's Professional Journal on Army Issues*, from Major John Grodzinski. John is leaving me with very big shoes to fill, having carefully nurtured *The Army Doctrine and Training Bulletin* (*ADTB*) from mere seedling to the fruitful publication we know today, and he deserves the recognition of our profession as a whole for the work he has done. On behalf of all the readers and contributors to the *ADTB*, I would like to thank John, and wish him the very best in his future endeavors. I know he will be keeping a close watch on the journal, and I expect he will become a regular contributor to "The Stand-Up Table" and other features. Well done, John, and thanks.

My intent is to follow the trail broken by John and to continue improving the quality of intellectual discourse within the Canadian profession of arms. *The Army Doctrine and Training Bulletin* must not only remain intellectually enlightening but also must be professionally relevant to the broad constituency it serves. The *ADTB* should serve as a mechanism for the expression of constructive opinion and as a forum for open debate on issues that affect all those who are interested in the past, present and future of our Army and its soldiers.

As many of you already know, the Army has reached a watershed in its development, and the next few years will be key to its future. It is my intent to have *The Army Doctrine and Training Bulletin* play an important part in the discussion and evolution of the Canadian Army by serving as a clearinghouse for information and opinion on how we should fight and operate in the future. New concepts, doctrine and equipment should be "fought" on the pages of the *ADTB* long before they become accepted and extant realities. This debate, however, requires the active participation of the profession as a whole. All too often, silence indicates not just acquiescence but, more damningly, arrogance or apathy. To this end, I will be asking those responsible for key projects and doctrine to express their ideas in the *ATDB* to inform and obtain feedback from a wider audience and to engage the Army as a whole in the process of transformation.

It is with delight that I have seen not only officers and academics but also soldiers and non-commissioned officers take real courage in their convictions and express their thoughts and opinions in the pages of this journal. It serves not only my interest as the Managing Editor but also the interests of the Army as a whole for me to encourage continued contributions from all ranks and all walks. If an article does not find a home within these pages, I will help find it a suitable place. An intellectually rigorous and open discourse on matters of professional interest is a sign of a healthy profession. For the Canadian Army, *The Army Doctrine and Training Bulletin* will serve as the primary public forum for that discourse.

This is, in the final analysis, our journal. It will both represent and help define us to ourselves, our peers in other armies and our nation at large.

Major Shane B. Schreiber, CD
The new Managing Editor of
The Army Doctrine and Training Bulletin

Editor's note: As this edition went to print, it was with sadness that we were informed of the untimely death of Lieutenant-Colonel M. Blanchette, CO Canadian Parachute Centre, in a tragic accident. The Canadian Army has lost an outstanding soldier and officer, and our deepest sympathies go out to his family and friends.

THE WAY AHEAD FOR THE RCA

After nine months of extensive consultation across all elements of the Regular Force Artillery, and with the approval of the Director of Artillery and the senior serving gunners as represented by Artillery Council, the "Way Ahead" is presented to all members of the Canadian Forces as a vision statement on the future role of the Royal Canadian Artillery. As a broad vision statement, the paper is general enough to encompass all elements of the Royal Regiment. Nevertheless, the specific contributions of the Reserves to this vision remains to be developed.

INTRODUCTION

*S*ince the *Army Vision* was published in 2001, gunners have raised many valid questions regarding the future of the Artillery. While the *Army Vision* document did articulate the way ahead for the Army and provide some generalities regarding equipment distribution and areas of focus, it did not examine any Artillery-specific subjects in detail. As the process of modernization moves forward, it is important that gunners have an understanding and common vision of the way ahead. Since the details of future organizations and equipment cannot be articulated at this time, there are a number of general principles and objectives that can be accurately stated that will provide gunners with a common vision of the future.

The aim of this article is to articulate the general principles and objectives that will form the foundation upon which future Artillery doctrine, organizations, equipment, tactics, techniques and training will be developed.

GENERAL

*C*oalition operations have been a reality since the beginning of the last century and will continue to be a central feature of the Army's future operations. Countries will contribute resources based upon their available resources, the operational situation and their strategic policies. As a principle of Canada's force structure planning, deployed forces must possess the integral capabilities required to permit the force to achieve its mission and survive. This principle implies that deployed forces must possess the appropriate firepower to support and protect manoeuvre forces and shape the battle space. It must also be self-reliant for its own protection from the asymmetric and evolving threat in the third dimension of the battle space. The assumption of allied support, specifically protective and firepower assets, cannot be made given the ramification of casualties to a democratic society.

With the increasing importance of digitized command, control, communications, computers, intelligence, surveillance and reconnaissance systems (C4ISR), interoperability between services and trans-national interoperability will be key to success in the future. Moreover, traditional sources for ordering indirect fire will shift from primarily gunner observers to a balance of traditional and non-traditional target acquisition sources. To this end, Artillery forward observers, henceforth known as fire effects officers, must be "universal observers" that are trained, equipped and accredited to direct, coordinate and integrate all means of fire available, including Canadian and allied artillery, air, aviation and naval assets. The fire can come from a wide variety of sources that are not necessarily directly linked to the originator. Technology and the demands of asymmetric warfare will cause the old paradigm of find, fix and strike to increasingly evolve to find and strike.

The expeditionary nature and unpredictability of future operations will demand weapon systems and organizations that are significantly more robust with increased strategic and operational mobility, appreciably increased range and lethality, reduced logistical overhead and increased political deployability. Asymmetric warfare and the risks of exploiting a LAV III based force's inherent operational mobility will demand weapon systems with the capability to rapidly provide highly accurate fire, regardless of posture or warning. As a traditionally manpower intensive arm, the Artillery will leverage the benefits of technology, where appropriate, to increase capability while decreasing labour intensive tasks. Gunners of the future will be increasingly called upon to operate across the spectrum of conflict in both core and non-core roles. They will be faced with situations characterized by high uncertainty and, potentially, high risk. Non-combatants and innocent third parties will likely be a common feature of future theatres of operation. Thus, methods of operation that have been acceptable in the past will not always be suitable or appropriate in the future. To deal with these situations, the gunners of the future will have to possess solid soldiering skills and very high competence in their specific area of expertise. Physical fitness will remain of paramount importance as gunners adapt to the requirements of continuous 24-hour-a-day operations in complex situations. These environments will also demand gunners with robust mental agility and stamina. Education and training will be a critical path that all gunners must exploit to maximize our potential to operate effectively in the highly technological

…deployed forces must possess the appropriate firepower to support and protect manoeuvre forces and shape the battle space…

and politically complex environments of the future. Challenging and dynamic leadership training will also be a feature of Army and gunner courses at all levels.

As previously stated, the demands of technology are already becoming apparent. Over time, these demands will increase, rendering the individual training programme in its current structure unsustainable. At the same time, skill fade will become a major challenge as gunners attempt to master increasingly complex technology. To mitigate these difficulties, gunners will specialize into chosen career paths in which they will be able to master the required knowledge and skills in less overall time but in greater depth. This approach will reduce the time devoted to individual training, while providing a mechanism to reduce the problems posed by increased complexities and skill fade.

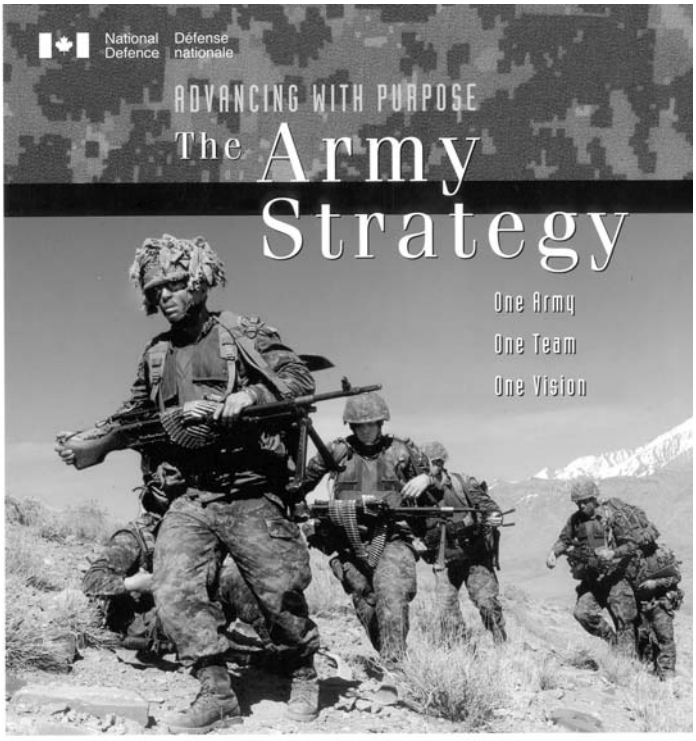
FIELD ARTILLERY

Field Artillery will provide a system of systems that accurately acquires targets and then delivers a variety of target effects (from lethal to non-lethal) against soft and hard, static, manoeuvring and mobile targets. These will be area or point targets and will be engaged in all weather, 24 hours a day and at ranges in excess of manoeuvre force capabilities. This capability will enable the Army to engage adversaries before they can engage our manoeuvre forces. The application of firepower, or the threat of the application of firepower, in conjunction with information operations, will be the key to breaking our adversaries' ability and will to fight.

In a medium weight expeditionary army, the Field Artillery of the future will play a key role by planning, coordinating and providing simultaneous indirect close and depth firepower as part of effects based operations to coerce, disrupt, destroy, neutralize, suppress and demoralize our adversaries with the aim of destroying their cohesion and their will to fight. While the demands of the future environment require accuracy, consistency and, where necessary, precision beyond what we have previously considered practical, current technology allows Field Artillery to open engagements with accurate fire for effect with considerable accuracy and lethality. In order to achieve this level of effectiveness, all of the available technology must be exploited. Additionally, the lethality of the Field Artillery must be enhanced, and increased precision capabilities must be exploited. Thus, in the short term, the Field Artillery will develop tactics, techniques and procedures to gain the maximum benefit from new technologies. Within the current operational and political environment, the risks of friendly fire and collateral damage due to inaccurate procedures are not acceptable; thus, Field Artillery units must focus on operating within this paradigm.

In the future, the Field Artillery will innovate and enhance its ability to integrate integral and external joint firepower resources to attack adversaries with synchronized firepower by exploiting enhanced situational awareness. In this context, the Royal Regiment must expand its impact beyond traditional views and promote the creative application of new technologies. The recent phenomenon of concentrating on close support fire to the exclusion of shaping the battlefield and conducting counter battery and counter mortar fire will change. Instead of buying evolutionary equipment that would only provide incremental improvement to our current capabilities, the Field Artillery will focus on acquiring a system of systems that will substantially increase capabilities over current equipment and which will meet the surface delivered indirect firepower requirements of the Canadian Forces. In conjunction with these new systems, future munitions will increase in lethality, have ranges in excess of 50 kilometres and will offer both precision and accurate area capabilities. Thus, future indirect fire systems must be relevant in the capabilities they can provide and must be deployable from both a practical and political perspective. Once in theatre, these systems must be capable of fulfilling current roles, while simultaneously providing long-range precision and accurate area fire in terms of both time and space. To fulfil its many roles, the protection and mobility of the Field Artillery must match that of the other arms to the greatest extent possible.

To effectively employ deployed Field Artillery units and sub-units, robust and flexible command and control



structures must be in place, which can quickly transition from one mission to another across the spectrum of conflict. These organizations will be commanded by officers with solid professional and leadership training and controlled by non-commissioned officers with detailed expertise in the technological tools of their trade.

TARGETING

The effective application of all firepower assets at stand off ranges will be the key to success in future operations. Integral to achieving this goal is the coordination, collection and rapid dissemination of targeting information. Critical to the success of this process is a responsive sensor-shooter link, which enables the find and strike concept to be actualized. The Royal Regiment will continue to enhance its well-known reputation for quickly gathering information and using it to quickly strike adversaries. Moreover, the ability to circulate information into a wide area network architecture must become a central focus of the Royal Regiment of Canadian Artillery so that the artillery will become a critical node in the common operating picture. This area of expertise has traditionally been a tremendous battle winning strength of gunners. Thus, the future will see our proven and time-honoured expertise again come to the fore. A key area where success is critical is the integration of our targeting process into emerging intelligence, surveillance, target acquisition and reconnaissance (ISTAR) doctrine and procedures. This work will be a main area of effort for the Artillery as it is not good enough to merely know the location of the enemy and what the enemy is doing. Rather, it is essential that there be a system in place to facilitate the rapid engagement of the enemy.

The emergence of increased target acquisition capabilities will be a key area of interest for the Artillery. The Canadian Forces expertise in this critical area currently resides within the Artillery School in Tactics Battery. Thus, this organization has commenced the planning for future organizational structures and methodologies to ensure that the ability of the Artillery to prosecute the long-range battle is optimized and to reinforce the Artillery's primacy in the targeting domain.

AIR DEFENCE

Through active and passive measures, the Air Defence (AD) Artillery will continue to provide protection by seeking to destroy enemy air assets, including unmanned aerial vehicles, missiles, helicopters and fixed wing aircraft. While the primary role of the Air Defence Artillery will continue to be to prevent the enemy from interfering from the air with land operations, the focus of the application of this fire will be expanded to enhance the multi-mission effectiveness of the weapons systems. The secondary point, direct-fire capability of the air defence anti-tank system (ADATS) will be exploited to a greater extent than previously envisioned. Additionally, an expanded distribution of AD sensor data in conjunction with enhancements to the Army's sensor net will significantly improve the overall ISTAR capability of Canadian units and formations. Thus, the AD must become a key provider of situational awareness to the Army common operating picture. To this end, equipment, tactics, techniques, procedures and training will be developed to optimize this capability.

The enhancement of C4ISR will continue to be a main area of focus for the Air Defence Artillery. An accurate, continuously updated air picture is key to the effective coordination of all counter-air assets and is a key enabler in providing an effective tool for airspace coordination and in preventing fratricide of friendly aircraft. Moreover, as both tactical and micro-unmanned aerial vehicles become a regular feature of future operations, the airspace coordination function will continue to grow in importance. With the ever increasing size of the battlefield, the reduction in size of radar cross sections and the increasing requirement to operate passively, Air Defence units will require an integral early warning system to detect targets.

A more immediate focus for the Air Defence Artillery will be to improve its operational capability by concentrating soldiers on sustainable and relevant Air Defence systems in units capable of generating cohesive and mission capable elements. The recent recognition of domestic security issues must be addressed by a responsive capability to defend domestic airspace. In the longer term, the Air Defence Artillery will need to focus its attention on standoff munitions, unmanned aerial vehicles and surface-to-surface munitions.

CONCLUSION

*The Army Visio*n and the requirements of future operations clearly indicate that significant changes are ahead for the Artillery. This opportunity must be seized and exploited to see the Artillery move forward with enhanced capabilities that will make it more relevant on all operations. It is essential that the Artillery be both a system of systems that is a pivotal provider of information to the information network and a provider of synchronized effects throughout the battlespace. This achievement will make the Artillery a key component in enabling the Army to generate and sustain high tempo and the rapid application of combat power. Within the Air Defence Artillery, improving situational awareness and concentrating resources will enhance operational capability. Relevance, deployability, enhanced accuracy, precision, lethality and longer engagement ranges must be the common objectives of the Field Artillery. While the Field Artillery must continue to provide timely and accurate close support fire, it must move beyond its current practice of focussing on this battle to the exclusion of other requirements. The Field Artillery must fill the critical depth fire role by exploiting our enhanced targeting capabilities to defeat future adversaries by shaping the battlefield and conducting counter battery and counter mortar engagements with long-range, pre-emptive and retaliatory fire. The importance of integrating current fire coordination and targeting processes with ISTAR doctrine cannot be over stated. Getting this aspect right will be critical to ensuring that the Artillery can win the stand off engagements that are essential for success on future operations. Firepower, in conjunction with information operations, will be the decisive factor in future operations.

Professional Training Put to the Test

The Royal Military College of Canada and Army Leadership in the South African War 1899-1902

by Major A.B. Godefroy, CD

The detailed analysis of leadership and command in the Canadian Army continues to progress after decades of academic drought that saw little serious consideration or publication on the topic. In addition to the recent release of two well-known volumes, *Generalship and the Art of the Admiral* and *Warrior Chiefs*, a handful of articles have surfaced in related journals such as *Canadian Military History*, *Canadian Military Journal* and *The Army Doctrine and Training Bulletin*.[1] While certainly valuable contributions, these publications are also noticeable by the remaining gaps they identify in this particular field of study. Essentially, the majority of analysis to date deals with the period of the Second World War and after. Canada's First World War leadership has received only passing academic attention from Canadian military historians, and the period prior to that, say from 1855 to 1914, is given even less consideration. As a result, many questions about the history and nature of leadership and command in the Canadian Army remain unexplored.[2]

Few publications examine the army officer corps as an institution during its early years.

Much of the literature on army leadership and command that has been produced to date concentrates either on the theoretical aspects of the topic or a single biographical analysis of a senior army officer. Few publications, if any, examine the army officer corps as an institution or the organizations that fed it during its early years. Less still examine the role of that institution in wartime.[3] The aim of this article is to examine the role of The Royal Military College of Canada (RMC) in providing officers for the Canadian Army during the South African War (1899-1902). By examining both the institution and the army officers it produced, a number of important issues related to the military and political tribulations of training and assigning leadership and command in wartime are revealed, some of which continue to be present in the Army today.

A MILITARY COLLEGE IN CANADA

In 1869, a Canadian government commission on military education requested a report on the feasibility of establishing a military college in Canada to provide a source of professionally educated and trained officers for service in the British Army and the Canadian permanent force and militia. The existing military schools in both the United States and Great Britain were examined for their feasibility as a role model for the Canadian military school for officers. Though the Dufferin Commission (named for the Canadian governor-general who initiated the study) favoured the British schools, both Colonel Patrick Leonard MacDougall, the adjutant-general of the Canadian militia, and Lieutenant-Colonel Thomas Bland Strange, then the senior British officer commanding the Gunnery School at Quebec, proposed that the college be modeled after the West Point Military Academy in the United States.[4] Strange had visited West Point on his own initiative and then argued that the mathematics based curriculum and the fact that West Point trained all arms of the Army (Sandhurst trained the cavalry and infantry officers while the artillery and engineer candidates attended Woolwich) was the best example to emulate. With a limited defence budget and a small officer candidate pool, RMC needed to be able to qualify all arms needed for Canada's infant permanent force.

West Point believed that it was more important to train the mind than to just give it information. Mathematics was established as the basis of its entire curriculum during the late nineteenth century. This had led to many well-trained men. Unfortunately, the West Point Academy guaranteed no military employment after graduation. As a result the school saw many of its better graduates pursue civilian occupations rather than become career soldiers.[5] The Canadian government sought means to avoid this problem. One solution was to obtain for Canadian officers potential access to British postings and advanced military training courses that were superior to anything in the United States, making a military career in Canada more attractive.[6]

The decision to create a professional school of arms in Canada came from the newly elected Liberal Prime Minister, the Honourable Alexander Mackenzie, who entered office in November 1873.[7] After some consideration and planning, his Minister of Militia and Defence, the Honourable William Ross, entered a bill in Parliament in May 1874.[8] It read:

An institution shall be established for the purpose of imparting a complete education in all branches of military tactics, fortification, engineering and general scientific knowledge in subjects connected with and necessary to a thorough knowledge of the military profession and for qualifying officers for command and staff appointments. Such institution to be known as the Military College, and to be located in one of the garrison towns of Canada.[9]

Essentially, the bill called for the combination of the West Point model and the higher-level English military schools into a four-year program. This, Ross felt, would meet Canadian needs for an all-arms school that could turn out any type of officer required.

After some debate over where the new military college should be situated, a decision was made. Partially due to its rich military heritage and partially due to its suitability over the other considered site at Quebec City, Kingston was chosen as the place for the new school of arms.[10] Sufficient room and buildings were available at Point Frederick, on the peninsula next to Fort Henry, to be converted for the college's use. Also a fence was built across the peninsula to control access to the officers' quarters. This fence was later improved into a stronger stonewall. The Stone Frigate was renovated and turned into officer accommodations, and other buildings were constructed as required.

The first cadets, a class of eighteen young gentlemen, reported to the college on 1 June 1876. Each cadet was issued a college number and given the temporary title of "gentleman cadet." When they had completed their studies four years later, some would become officers as expected, but not all ended up in military careers as hoped. Contrary to logic, political patronage often won out over military professionalism, and no favoritism was shown to the "old eighteen" in guaranteeing military commissions in the Canadian Army following graduation.

The issue of creating interest in professional soldiering in Canada was a problem. In spite of all the precautions taken by Colonel Fletcher, a Scots Fusilier Guards officer posted to Canada as Dufferin's personal secretary and responsible for recruiting young gentlemen into RMC, it was still difficult to attract men as there was little promise of a military future after graduation. In 1876 the size of the small Canadian regular force was insufficient to guarantee all RMC graduates a career in Canada's military. A proposition was put forward by Colonel Edward Osborne Hewitt, the first Commandant of RMC, for the creation of an expanded Permanent Force that would create futures for his cadets, but the idea was tabled for some time. When the Permanent Force was finally enlarged in 1883, it seemed that many of the available officer positions were given to unqualified individuals rather than professionally trained RMC graduates for political patronage reasons. Though this was not always the case, there were nevertheless many RMC students who graduated with no hope of ever serving out a military career in the Canadian Army. Colonel Fletcher, therefore, proposed another alternative, even though it was somewhat counter-intuitive. He suggested that RMC graduates might be allowed to apply for commissions in the British and Imperial forces. Though this would definitely attract more men to RMC, it did nothing to build Canada's own indigenous force structure. Colonel Hewitt managed to secure a number of commissions for RMC graduates in the British Army from the War Office in London.[11] When the first RMC class graduated in 1880, there were four commissions available for the best cadets in the Imperial forces. Selby Smyth, the Canadian Minister of Militia and Defence, commented in his annual report in 1878 that this would be "another link in the chain that binds us altogether." It was hoped that this would be a preliminary move towards the establishment of Permanent Force units in Canada that might be interchangeable with British units.[12] In reality it only served to ensure that the British Army, not the Canadian Permanent Force, would receive Canada's best potential officers.

The lack of RMC graduates entering the Canadian Permanent Force had received negative public reaction. Captain Ernest F. Wurtele, an RMC graduate of 1882, noted ten years later that for every graduated cadet that was in either the Canadian Permanent Force or the public service of Canada, there were two serving in the Imperial forces and two more privately employed as civilian engineers of some kind. This put into question the whole aim of the college. Many critics saw RMC as nothing more than another tool of the government, a place of political patronage and appointment much like the Permanent Force itself. Even some members of the Canadian military were opposed to the college. The militia battalions, of which there were eighty-nine by the 1890s, argued strongly that their own needs were being largely neglected to maintain RMC and the tiny Permanent Force.[13] Some members of Parliament also brought the issue forward. In June 1895 during a debate in the House of Commons, William Mulock, a Liberal party member from the electoral riding of North York, Ontario, chastised the government for wasting precious government funds on professional soldier development. He complained loudly that the college was perceived as nothing more than "a place where a few young fellows, who have more money than brains, play soldier for four years at the expense of the Canadian tax-payer."[14] Both he and many other politicians and officers felt that it was up to the militia, and not a regular force, to provide for the defence of Canada.

Britain also drew increasing numbers of graduates from RMC into the British Army throughout the 1880s in an effort to respond to gaps in its own order of battle, clearly suggesting the product Canada produced was adequate by British

...creating interest in professional soldiering in Canada was a problem...

Major A.B. Godefroy, CD

standards. In some instances, the British relied heavily on the Canadian college to support its own officer corps. A Russian victory over an Afghan force at Penjdeh in Transcaspia in March 1885 caused great concern in the War Office in London about the state of readiness of the British Army. It was felt that if Britain had to engage the Russians again, the Army would suffer large shortages of qualified officers. In response to this potential threat, in April 1885 the War Office offered to Canada an additional twenty-six commissions in the British Army over and above the usual four commissions offered every year. It sought six artillery officers, ten engineers and ten officers of either infantry or cavalry.[15] Furthermore, if RMC and its recent graduates could not fill the positions, London was prepared to offer the commissions to officers of the Canadian Permanent Force and active militia. In the end Britain received twenty-eight officers from RMC in 1885. In 1888 another offer was made and again RMC responded. In addition to the usual four commissions, the War Office offered an additional six commissions in the Royal Engineers and two in the Royal Artillery.

Such moves were indicative of Britain's confidence in RMC's ability to produce professionally competent officers for service in either colonial or British forces. Additionally, it also demonstrated that Canada's decision to base its military officer education in mathematics was paying off. Britain needed technically trained officers, and RMC was capable of supplying those gentlemen. Others might argue that London simply had no choice, but it did. There was a plethora of British militia officers to choose from not counting the engineer and artillery graduates of Woolwhich Academy. However, those Canadian cadets who had entered into British service to date had performed admirably, and the War Office could see no reason not to continue its exploitation of RMC as a resource for officers. By 1889 Britain had taken seventy-five RMC cadets into its armed force, just over a quarter of all cadets that had graduated from Kingston thus far.[16]

RMC'S FIRST WAR—SOUTH AFRICA

Repeated attempts by various parties in Canada to get the country involved in Britain's foreign wars had met with little initial success, creating few opportunities for its professional officers and soldiers to put their skills to the ultimate test—battle. For RMC this was both frustrating and challenging, for it brought the whole purpose of the college's existence in question and put it under considerable political scrutiny during the 1880s and 1890s. Canada was unlikely to come under direct threat of attack, and those insurrections and invasions that had occurred in the past were adequately if not effectively handled by the British Army and Canadian militia. Additionally, dubious handling of the college's affairs and poor leadership in the office of the Commandant during this period caused a great deal of concern over RMC's viability. As the century drew to a close, it appeared that there might be no desire, if yet a requirement, to have an institution for the training of professional officers in Canada. However, two factors were critical in changing this view and potentially saving the college from closure. The first was the appointment of Colonel Gerald C. Kitson as commandant, and the second was the beginning of the largest conflict that Canada had fought in since the War of 1812.

The improved direction and success of the Royal Military College was due largely to the efforts of Colonel Gerald C. Kitson, who served as commandant from 1896 to1900. An officer in the King's Royal Rifles, Kitson had considerable staff experience. After an initial tour as aide de camp to the brigadier-general in Aldershot, and a tour as the General Officer Commanding Western District in 1884-85, he was posted to the staff in India. He served in Bengal as district staff officer in 1890, fought in the Manipur campaign in 1891 and then served as deputy assistant adjutant general at Meerut until 1892. He was promoted to assistant adjutant general and served at Umballa until 1894. Upon taking up the Canadian appointment at RMC, he was promoted to lieutenant-colonel.

Kitson was well aware that the solution to turning out better officers from RMC did not lie in the promise of a commission in the Permanent Force or the British Army. This may have well been the end, but it was not the means. Even if all the officer positions in the Permanent Force had been reserved for RMC graduates, there still were not enough places to post them all in proper positions. Kitson instead turned his attention towards improving the overall reputation of the college, which he hoped would lead to the decision to expand Canada's Permanent Force if he could provide the qualified officers to command it. A direct means of accomplishing this aim began with the improvement of the college's quality of education. Kitson retained RMC's unique combination of military training and general and technical (civilian) skills. He released ineffective instructors from the faculty and staff and replaced them with more competent professors, many of whom were serving British officers with operational experience.[17] Kitson was not totally free of the political gaming that surrounded affairs at the college, but he managed to accomplish many of his goals in spite of it. It was through his improvements that RMC was able to attain the level of effectiveness required to meet the demands of war.

There is no doubt Kitson's new policy and direction also accounted for the large turnaround in college attendance. His efforts to improve the image of the college as a viable institution for Canadian defence met with great success and resulted in increased attendance between 1896 and 1900, from an average of forty-five cadets a year to well over seventy. In 1900, the college boasted a battalion of seventy-six cadets, not including another twenty-four cadets that were commissioned that year into war service without graduating.

Part of Kitson's success as commandant can be attributed to his good working relationship with the General Officer Commanding (GOC) the Canadian militia, Major-General Sir Edward Thomas Henry Hutton. Kitson had been a brother officer of Hutton in the 60th Rifles and addressed him as "my dear old Curly." When Hutton was

chosen for the appointment of GOC, Kitson was delighted.[18] The two collaborated on many projects for improving the overall level of Canadian officers, including the establishment of a staff course program modeled after the course pursued at the British Staff College at Camberly, England. Officers were trained in movement of troops, military history and the framing of orders. Theoretical work was then complemented by practical "staff rides." The first course was held in Kingston in February 1899, which proved to be very successful and graduated twelve officers.[19] As an aside, to ensure that Kitson would be senior to the members of the staff courses at RMC, Hutton promoted him to full colonel.[20] This promotion was authorized through the War Office in London as the Canadian Militia Act did not make provisions for promotion beyond the rank of lieutenant-colonel, however, Kitson, who Hutton regarded as his de facto second-in-command in Canada, had deserved this recognition for his success at training officers through RMC.

In addition to improving commissioned officer career training Hutton also made significant changes in the future career progression of officer cadets. Following a report on Canada's defence preparedness prepared by a combined British/ Canadian government commission, Major-General Hutton implemented a series of recommendation aimed at creating viable military careers for RMC graduates. In 1899, the GOC announced that beginning that year the Permanent Force and the Instructional Corps would be largely officered from then on by RMC graduates. All of the Royal Canadian Artillery positions and half of the Permanent Force cavalry and infantry officer positions were to be reserved for RMC graduates. Also two Army Service Corps commissions in the British Army would be reserved for RMC, increasing the number of annual positions available from five to seven. These improvements to officer career progression could not have come at a better time, with war breaking out in South Africa that same year.

In a war whose roots were over half a century old, Canada's involvement only came at its watershed. Historians often disagree upon whether the South African war merits interpretation in

The Ablest Officer to Command the Canadian Militia: Major General Edward Hutton served as General Officer Commanding the Canadian Militia from 1898 to 1902 and did much to enhance officer training, and supported the efforts to improve the Royal Military College. (Courtesy National Archives of Canada)

socio-economic or ethno-cultural terms or even as a piece in the larger European rivalry over the partition of the continent. Debating the true nature of the origins of the war lie outside the scope of this article, however, a brief overview of the origins of the conflict and Canada's relationship to it is germane to this discussion.[21]

Dutch peasants arrived in South Africa when the Dutch East India Company established a strategic post and provisioning station at the Cape of Good Hope. The British arrived soon after, and their presence was solidified after England's purchase of the colony in 1815. In 1820 the first of four thousand British immigrants arrived, and almost immediately an acrimonious relationship was established between the two groups. A major irritant to the Boers was the intrusive nature of the British settlers and British law, which altered the economic and social relationship of the colony.

British law caused further discomfort with Parliament's abolition of slavery in 1833. The Boers, whose livelihoods depended to some extent on slave labour, saw this move as an open threat to their material existence in the colony. Distraught by British bullying, over five thousand Boers and as many slaves, largely from the Graaf Reinet district of Cape Colony, moved to the interior of the continent to free themselves of British legal and administrative control. Once across the Orange River, the Dutch established the Orange Free State and the Transvaal.[22]

The subsequent troubled triangular relationship between the British, Boers and the Bantu people further worsened after the British annexation of Natal in 1843. Though the Boers sought to retain their independence from any British relationship, fighting with the Zulu in 1877 forced them to seek British military and monetary assistance. This cooperation, however, was short-lived, for the Boers under Paul Kruger and Piet Joubert led a successful rebellion to free Boer territories and economic activity from British control in 1880-81. Soon after, the Transvaal began to prosper and increase its economic power with the development of gold and diamond mining and the public support of Germany. Britain saw this development as a bona fide threat to its own power in the region and sought means to challenge Boer supremacy on the South African coast.[23]

In 1899 Britain invoked policy over the equality of the white races in Africa, designed more to protect the rights of British colonists in the Transvaal, that directly challenged Boer politics and policy. After a failed diplomatic attempt to resolve the issue, Britain increased its South African garrison and made plans for the transfer of further troops to the peninsula. Seeing the obvious military threat, Kruger demanded the immediate withdrawal of the additional British forces. His demand was ignored. Seeing no other alternative for their survival, Boer troops moved into British territory on October 11th, 1899.

As the South African crisis developed, Ottawa found itself under pressure to make public its position in the affair. As a loyal member of the British Empire, the Canadian Prime Minister Sir Wilfrid Laurier openly expressed his sympathy for Great Britain in her efforts to secure equal rights for British subjects in the Transvaal.

Major A.B. Godefroy, CD

However, he was faced with the difficult task of demonstrating solid support that would satisfy the majority English-speaking population that favoured the war, while not isolating the smaller yet significant French-speaking population that did not. However, as the war drew closer, demand for direct participation grew in English speaking Canada. The government found it had little choice. Canada was not yet sure it would be able to survive without British protection, which meant in return it had to ensure some contribution to the system of mutual Imperial defence. On October 13th, 1899, two days after the war began, Sir Wilfrid Laurier announced that Canada would dispatch a force not to exceed one thousand men in support of British operations in South Africa. The following day orders were issued for the enrollment of volunteers.

Once the decision had been made to commit troops to South Africa, the next issue to come to the fore was that of who should command the force and its components. The number of people seeking a commission in the Canadian South African contingent far exceeded the initial number of positions available, and this led to a considerable amount of squabbling over exactly who should be chosen to go. Naturally, many prominent families immediately sought to use their political patronage to secure commissions for their sons, however, such an approach was not always successful. In the end the officer corps of the Canadian contingents deployed to South Africa came from a variety of backgrounds.

Command of the first contingent was based on a plan authored by Colonel Hubert Foster, chief staff officer to Major-General Sir Edward Thomas Henry Hutton, the General Officer Commanding the Canadian militia. It was decided that Lieutenant-Colonel Charles W. Drury would command the artillery detachment, Lieutenant-Colonel Lawrence Buchan the infantry, and Lieutenant-Colonel Francois-Louis Lessard the cavalry detachment. Overall command of the force was bestowed upon Lieutenant-Colonel William Dillon Otter. A number of additional officers were also slated as supernumeraries or as "special duty" officers within the contingent. Furthermore, the contingent itself was structured into a regiment of two battalions, permitting the need for a regimental administrative structure and hence many more Canadian officers.[24]

The impact of the South African War was felt immediately at RMC. When the war broke out, Kitson suddenly found himself with the additional tasks of procuring horses and other materials for the new Canadian contingents deploying to South Africa. Other members of the staff also quickly found themselves with additional duties connected with the organization of forces for the war.[25] It seemed that Hutton had placed his faith solely in Kitson and his staff to get things ready in time. The situation worsened, however, when almost all the British officers serving at the college were ordered back to their units in England, and many of them headed for South Africa or other postings. The second staff course then underway at the college had to be cancelled when Kitson lost his British instructors and many of the officers attending the course had to return to their units for duty in South Africa or elsewhere. However, eight of the twelve officers that had graduated from the first course were selected for service in South Africa, attesting to the value of the staff course at RMC and ensuring its continuation when circumstances permitted it. In addition six officers of the Royal Canadian Regiment who were taking the militia long course at RMC were also ordered to return to their respective depots in October. For the time being, Kitson's plan to reform the Canadian officer corps had to wait.

The cadet body was also greatly affected by the war. In June 1899, RMC graduated fourteen officer cadets. Kitson described them as "an exceptionally fine lot of men" and recommended nine of the class for commissions in the British Army.[26] In September, with the new recruits, the college had a strength of eighty-seven cadets, but this changed when the war started a month later.

Colonel Hubert Foster had been tasked to organize the first Canadian contingent to South Africa in October 1899 as the GOC was absent in British Columbia. Foster completed his task and then proceeded to England for an interview with the Commander-in-Chief, Lord Wolsley, to determine what further effort Canada might make in terms of military support. Wolsley inquired whether or not Kitson could supply an amount of reputable young men for commissions in the British Army. Once again, the strain that war placed on England's officer corps was felt, and it needed to fill the many gaps that existed within its own army. Wolsley admitted to Foster that the War Office was at the end of its resources for officers and was now giving active service commissions to untrained British militia officers. Wolsley further indicated that he was seeking twenty or thirty RMC cadets fit for British regular army commissions. Foster replied, "certainly,"[27] and promised to forward the request to Canada's governor-general, Lord Minto.[28]

The struggle between politics and military professionalism is clearly evident.

The request only furthered the difficulties for getting RMC graduates into Canadian service. Despite every effort towards making RMC the main source of officer candidates for Canadian units, the first contingent deploying to South Africa acquired most of its officers from other sources. For example, of the forty-nine officers assigned to the 2nd (Special Service) Battalion, Royal Canadian Regiment of Infantry, only nine were graduates of RMC. The remainder were drawn from the Canadian militia. The reality of the matter was that the Canadian government at first did not call on RMC to provide professionally trained officers for its field force, as it

expected to fill its officer positions using select members of Canada's Permanent Force and through various patronage appointments. Rather, RMC called on the government for consideration in the planning and appointment of officers for the contingent. On December 21st, 1899, Captain Ernest F. Wurtele, the secretary-treasurer of the RMC Club of Canada, forwarded a list of graduates who had contacted him offering their services for South Africa to the Minister of Militia and Defence and the General Officer Commanding the militia. The reply was as follows:

> *Sir,*
>
> *I am desired by Major General Hutton to acknowledge the receipt of your telegram of the 21st inst. [sic], in which you state that graduates of the Royal Military College are offering for service in South Africa, and expressing the readiness to forward the names if required. The Major General Commanding has been much pleased to note the many loyal and patriotic offers from graduates of the Royal Military College which have reached him. While he will be glad to receive the list of graduates you refer to, he cannot hold out encouragement to you to expect that any selections can be made from among them at present, as the list of officers is about completed.*
>
> *I have the honour to be,*
> *Sir,*
>
> *Your obedient servant,*
> *B. H. Vidal, Lieutenant Colonel*
> *Chief Staff Officer* [29]

The struggle between politics and military professionalism is clearly evident in this issue. While the South African war gave the Canadian government full potential to make use of its officer resources, it missed the opportunity to do so. Foster, who had been responsible for planning the command and order of battle of the first Canadian contingent, failed to make use of the officer resources at RMC to complete this task. At the same time, he attempted to keep Wolsley and the War Office in London pleased with a steady stream of technically trained officers from Canada. The reasons for taking such actions are not very clear. The report of the GOC in years 1899 and 1900 state that he was pleased with the fact that so many of the cadets had received commissions in the British and Imperial services, "prov[ing] the excellence of the education afforded by the curriculum of the college."[30] However, he was also distraught at the fact that so few of the RMC graduates went on to serve in Canada's Army. He advised, "that in view of the cost to the state of the education of these young gentlemen, it would be a national economy to offer them some practical inducement to secure their services to the Active Militia and the Permanent Corps."[31] Foster may have simply made a poor decision, or perhaps he felt he was acting in Kitson's best wishes by ensuring more Imperial commissions for the college. To make matters more complicated, Hutton seemed to contradict his own report when, prior to leaving Canada in February 1900, he persuaded the Earl of Minto to inform Wolsley that RMC would indeed furnish the required officers.[32] Whatever the case, in the end the Canadian military was being sapped of its own ability to enhance its forces in the field.

Kitson was furious over the issue. After receiving a wire from the Minister of Militia and Defence asking for detailed information about cadets of two years standing or more, Kitson and his staff adjutant, Major McGill, realized that they were being kept out of a decision over the commissioning of cadets. Kitson had repeatedly insisted that he and his officers have control over this issue, otherwise the discipline of RMC would falter when lucrative Imperial commissions were offered even to those cadets at the bottom of the class. With no sense of competition, the cadets would have little reason to strive for excellence.

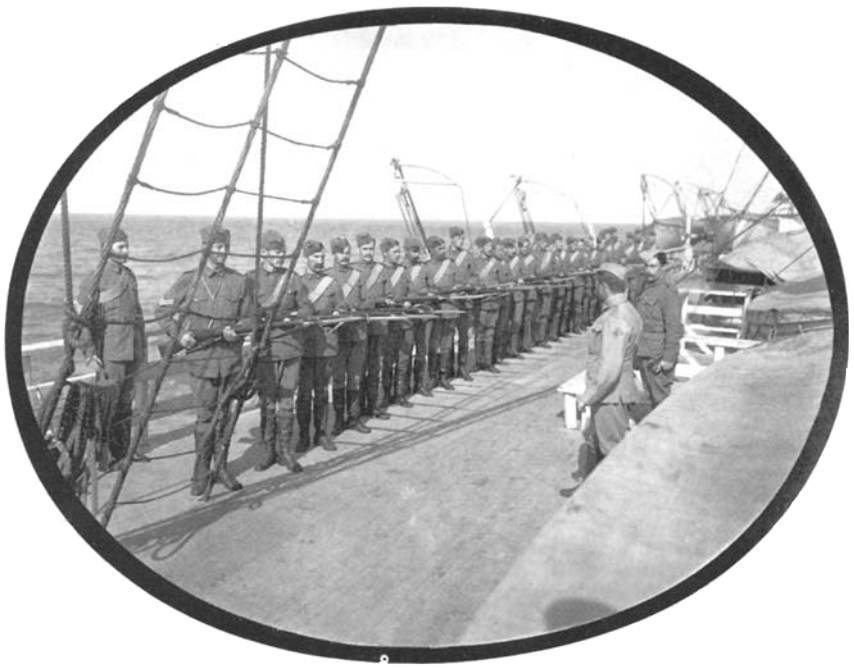
When instructions did finally arrive at RMC to select candidates for the extra Imperial commissions being offered, Kitson encountered some difficulty in getting "decent cadets" to accept them.[33] He later noted, "unfortunately our present senior class are a very poor lot, and apparently their parents are afraid of their boys being shot in South Africa."[34] However, the junior classes held a number of suitable applicants if the War Office was willing to accept gentleman cadets of one and half year standing. Kitson sent his reply and recommendations to London and waited for an answer. The reply and confirmation of actual offers for specific commissions came only after considerable delay, and while Kitson waited, parents anxious to secure their son's futures continually harassed him.

The argument of getting RMC graduates into officer positions in Canadian contingents going overseas was now completely overshadowed by the issues surrounding the award of Imperial commissions. Kitson began to suspect that political patronage might affect the college's share of the Imperial commissions even though RMC was expected to be the main source to fill these positions. The recommendations Kitson forwarded to the Chief Staff Officer were returned to him, and he was told that Canada had not yet formally accepted the offer to supply candidates for those commissions. He began to suspect that the Minister of Militia and Defence might use the commissions for his own political purposes. To avoid this problem, an agreement was settled upon only after Kitson made his reservations loudly heard. In the end, Imperial officers in Canada were to recommend applicants to the Minister of Militia and Defence for whatever Imperial commissions may be offered, while the Minister could then reserve the right to deny any recommendations he saw unfit. However, the Minister could not make his own nominations, thus avoiding "official" political corruption in the issue.[35]

The political controversy over commissions at RMC had mixed results on the cadets. In March 1900, four cadets of the second class were commissioned in each of the Army Service Corps and Royal Artillery branches. In May, another four from the same class also went to the Royal Artillery. Of the three commissions offered in the Royal Engineers in June, cadets in the graduating class filled only two. The third went to a member of the second class. One member of the graduating class received a commission in the second Canadian contingent heading to South Africa.[36] Eight cadets commissioned later in the year all came

Major A.B. Godefroy, CD

from junior classes. The remainder of the graduating class of 1900, over half of the whole class in fact, chose to pursue careers other than the military.[37] Kitson felt dejected and that his work to improve the college had been in vain. He left the office of Commandant later that year with a bittersweet taste in his mouth, commenting that he was "pretty sick of this school" and had done all that was possible to make it a better institution.[38] In the end, he should not have felt so bad, for fifteen of the thirty-one recruits who entered RMC in 1897 (the first class under his direction) served in South Africa with either the British or Canadian Army. For the period, it was better than average results.



Soldiers of Strathcona's Horse training en route to South Africa. Reservations that the quality of unit officers were unfit to lead soldiers proved groundless. One quarter of the original 28 officers of the Regiment were RMC graduates, while 10 others were experience NWMP officers. (Courtesy Lord Stratchcona's Horse (Royal Canadians))

STRATHCONA'S HORSE

When prominent Canadian Donald A. Smith, better known as Lord Strathcona, put forward his proposal to dress and equip a unit of mounted rifles for service in South Africa, he reserved for himself the right to approve the nomination of all officers. Of course, the final judgement was left up to War Office in London, who throughout the selection process for Strathcona's Horse denied only one officer recommendation. The man's name was E. C. Parker, and he had raised a troop from Fort Steele, British Columbia, which he intended to command. Parker had previously been forced to resign from the British Army for conduct unbecoming an officer, and therefore his commission for lieutenant was refused. In the end Parker reverted to the rank of sergeant so he could serve anyway. There was no stopping his trip to South Africa.

Lord Strathcona's reasoning for the strict officer selection policy was that "the matter was to be entirely non-political, the only qualification being the thorough fitness of the officers and men for the service required."[39] Not wanting to leave himself open to charges of favoritism, Lord Strathcona even left the matter of choosing the commanding officer of the regiment to the Canadian military authorities.[40] After much consideration, Superintendent Samuel Benfield Steele of the North West Mounted Police was selected to command the unit. He, in turn, selected Constable Sergeant Robert Belcher to be his second-in-command. Belcher and Steele had worked closely for years and knew each other well.[41]

Steele's selection of officers was done with equal care and consideration of the needs of the unit and the mission. The rank and file of Strathcona's horse was handpicked for their ruggedness and skill as rangers, frontiersmen and cowboys. The men were all comfortable in the saddle and prone towards the outdoors. Almost all ranks had been drawn from the western provinces or the northwest mining towns. Accordingly, the officers had to meet the same standards.

However, the eastern military establishment expressed many reservations about the fitness and quality of the officers selected to lead what was considered by military standards of the day a rather unconventional force. The *Canadian Militia Gazette* commented in an article on February 20th, 1900, that:

> *With the exception of Lieutenant Colonel Steele and three or four others, the selection of officers for the Strathcona Horse has been a distinct disappointment, and trouble may yet arise. In a case like this, when men are asked to take charge of irregular troops, there might have been some deference paid to their wishes in the matter of choosing their staff. The material of the squadron is the very best that Canada could offer, magnificent fighting stuff, and it will be a shame if they are hampered and vexed by the placing over them of men whom they do not wish to follow. These westerners are not little lambs, and it is a dangerous proceeding to impose upon them young and inexperienced officers. They are not accustomed to take many orders from anyone, and when they do, it must be from a man who can show them his fitness to lead…*[42]

Such criticism was unfounded. Ten of the original twenty-eight officers were former members of the North West Mounted Police (NWMP). All of the officers had either police or militia service, and many had seen action in the Northwest Rebellion of 1885. Several had also served previously with the British regular army. Others still were graduates of RMC. The true crux of the matter was that there were, in fact, many men still desperately trying to secure commissions for themselves or their sons, most if not all of whom had no military training or experience whatsoever. Lord Strathcona had effectively pulled the rug out from

under their attempts at patronage within his unit.

Despite the clear intention of Lord Strathcona not to allow political patronage to affect the decision-making process, many military authorities were irritated by his organization, including Kitson. He was concerned that available Imperial commissions, especially for active service in South Africa, were not going to be given to RMC but rather to whoever was able to get at them first. Kitson had warned Minto that all the best young officers of the Canadian militia were already in South Africa, and many there would give anything for a permanent Imperial commission. Kitson believed that unless the selection of applicants for commissions from the War Office were made by Imperial officers in Canada, "the British army [would] be shot with all the useless ruffians, the lame, halt and blind that were piled into Strathcona's Horse."[43]

He should not have worried. The Royal Military College was well represented in this South Africa bound contingent. Of the original twenty-eight officers of the Strathcona's Horse, seven were RMC graduates. Four more RMC graduates served in the rank and file. The senior of the RMC group was No. 20, Major R. C. Laurie, who had graduated from the second class at RMC in 1881 and was serving with the North West Mounted Police at Foothills City when Steele arrived to recruit him. Laurie himself was then immediately dispatched to British Columbia to begin recruiting men for "C" Squadron of the regiment. The other RMC graduates included No. 251, R. M. Courtney, No. 290, J. E. Leckie, No. 332, G. H. Kirkpatrick and No. 375, H. S. Tobin. Ironically, Leckie's classmate, No. 291, P. W. Bell and Kirkpatrick's classmate, No. 339, A. W. Wilby both served in the ranks of Strathcona's Horse, as there was simply too few officer positions available to have them all commissioned for service. In fact, the original officers of the Strathcona horse were arguably the best and most experience group assembled for the South African contingent.

CONCLUSION

To meet the demands of both Ottawa and the War Office in London, between 1899 and 1902 RMC commissioned forty-three cadets directly into British and Canadian units heading for South Africa, in addition to the thirty-nine RMC graduates already serving with various dominion units that were sent to the war. Likewise, forty-three RMC graduates were serving directly with the Canadian contingents. Of those serving with the Canadians, fifteen went overseas with the 2nd (Special Service) Battalion, Royal Canadian Regiment of Infantry, seven with the 1st Canadian Mounted Rifles, five with the Royal Canadian Field Artillery, eleven with Strathcona's Horse and five with the 2nd Canadian Mounted Rifles.

These 'RMC' officers repeatedly proved themselves in the field. Many of them were recognized for their efforts, while others were wounded or killed in the process. Like their comrades and the soldiers they led, these young men suffered from sickness and disease and the hardships of campaigning on the veldt. Those who returned to Canada had much experience and, in turn, ensured that those lessons learned in the war were reflected in the improvement of the Army at home. Like all lessons in war, however, they were not free and were paid for with young lives.

Politics aside, the war in South Africa was the first real test of RMC's ability to produce professionally trained soldiers. Though several ex-cadets had already proven themselves in the British Army, it was the first time the college drew directly from its graduating ranks and from its cadets not yet graduated. One then asks was the college capable of providing a sufficient number of officers for the Canadian expeditionary force for South Africa? On the surface, one could easily argue yes it did. In fact there were more than enough cadets and RMC graduates to fill Canadian officer positions, causing a good deal of competition for those spots that had not already been reserved for various patronage appointments. Not all RMC graduates that wanted to serve as officers in the Canadian contingents were able to do so. In some instances ex-cadets even resigned their militia or Permanent Force commissions to join one of the contingents as a private soldier.[44] As can be seen, however, there was no guarantee even in wartime that military education and training would lead to a military career or operational service.

The South African war also brought an increased amount of attention to the college and its value as an educational institution. It was becoming increasingly evident that a young Canadian gentleman with an RMC diploma could do well either in the military or in civilian life. The college also provided a high quality education at relatively little expense, making it both affordable and attractive to many. In his report submitted to the House of Commons on April 17th, 1900, the Honourable F. W. Borden, Minister of Militia and Defence (and later Prime Minister of Canada), stated that:

> *It is a source of gratification that the excellence of the general and technical education imparted in the Royal Military College and of the training given therein is becoming year by year more widely known and more fully appreciated. A proof of this is found in the fact that last year there were more applicants for admission than there was accommodation for.*[45]

The downside to this was that still many of RMC's graduates were not pursuing military careers following graduation. The war may have attracted many young cadets to the college and to active service, but when it passed its climax, few from RMC were interested in pursuing the bush war and policing that followed the larger battles. Canada was still an uneventful military posting, and though many cadets wished to serve his Majesty, they wished to conduct that service anywhere other than in Canada. At home, an officer looking for adventure, operations and career advancement was left wanting.

Nevertheless, the war in South Africa impacted not only RMC but also the Canadian officer corps in general. In the wake of a war that opened the eyes of Britain to Canadian military capability, Canada's eyes were likewise focused on the needs and merits of a professionally led army. There was a new form of warfare brewing in the twentieth century, and while British

technology, doctrine and tactics were suitable for waging war against less talented adversaries, any fight against an equal would require greater mobility, firepower and, above all, professionally trained and competent leadership and command.

ABOUT THE AUTHOR...

Major Andrew B. Godefroy joined the Canadian Forces in 1991 as a field engineer. Since 1997 he has devoted his career to the tactical exploitation of space in support of military operations and is currently officer commanding the Canadian Forces Joint Space Support Team at the CFJOG, Kingston. Maj Godefroy holds a BA from Concordia University and a MA in War Studies from RMC. He is currently completing his PhD (on his own time) in the same field, specializing in science and international relations. A three-time recipient of the DND Security and Defence Forum scholarship, Maj Godefroy has written numerous articles on Canadian military history and strategic studies and currently serves on the editorial board of the *Canadian Military Journal*. He has had a long interest in the history of the early formation of the Canadian Army and is the author of *For Freedom and Honour? Canadians Executed in the Great War* (1998) and the forthcoming *Making Deadly Gentlemen: RMC and the Graduate Officer in the First World War* (2004).

ENDNOTES

1. See Harris, S. and Horn, LCol. B. eds. *Generalship and the Art of the Admiral*, (St. Catherines: Vanwell Publishing, 2001); and *Warrior Chiefs* (Toronto: Dundurn Press, 2001).
2. There has yet to appear any detailed academic analysis of leadership and command of the Canadian Expeditionary Force in the First World War, and earlier period studies are likewise scarce. See Miller, Carmen. *Painting the Map Red: Canada and the South African War, 1899-1902*. (Montreal, McGill-Queens U Press 1993); and though dated, the most detailed study of the origins and expansion of the Canadian Army remains Harris, S. *Canadian Brass: The Making of a Professional Army, 1860-1939*. (Toronto: University of Toronto Press, 1988).
3. By contrast the United States has developed a healthy study of its army leadership institutions both in war and peacetime. For examples see Atkinson, R. *The Long Gray Line: The American Journey of West Point's Class of 1966*, (New York: Henry Holt and Company, 1989); Waugh, John C. *The Class of 1846: From West Point to Appomattox—Stonewall Jackson, George McLellan, and Their Brothers*, (New York: Ballentine Books, 1994); and Yenne, B. *"Black '41": The West Point Class of 1941 and the American Triumph in WWII*, (New York: John Wiley and Sons, 1991).
4. The 1st Marquis of Dufferin, Frederick Temple Hamilton-Temple Blackwood, served as Canada's governor-general from 1872-1878. He was determined to strengthen Canada's connection with Britain and felt this could be best achieved through the improvement of the country's weak military.
5. Government of Canada. *Parliamentary Papers, 1870*, XXV, 635-637, Colonel P. MacDougall. Account of the System of Education at the United States Military Academy at West Point. Precis in *Militia Report 1873*, appendix No.9, pp. 221-223.
6. Preston, Richard A. *Canada's RMC*,(Toronto: University of Toronto Press, 1969), p. 17.
7. The Honourable Alexander Mackenzie (1822-1892) was Canada's Prime Minister from November 7th, 1873 to October 8th, 1878.
8. William Ross (1825-1912), Member of Parliament for Victoria, Nova Scotia, Minister of Militia and Defence (November 1873-September 1874) and lieutenant-colonel in the Canadian militia.
9. Canada. *Acts of Parliament of the Dominion of Canada*, 27 Vict. C.36, (Ottawa, 1876).
10. The proposed location and buildings at Quebec were already in use by the School of Gunnery.
11. Preston, *Canada's RMC*, pp. 66-68.
12. Ibid. p. 66.
13. Penlington, Norman. *Canada and Imperialism, 1896-1899*. (Toronto, 1965), pp.14-15. See also Debates of the House of Commons, June 6th, 1895, pp. 2199-2200, William Mulock (Liberal, North York, Ontario).
14. Penlington, *Canada and Imperialism*, p. 14.
15. Colonial Office papers. CO 42/783, 69-75. See also Preston, *Canada and "Imperial Defence"*, pp. 162-163.
16. By 1889 a total of 302 cadets had been allotted numbers at the college of which 292 entered for studies.
17. Preston, *Canada's RMC*, pp. 149-160.
18. Canada. *Hutton Papers*, May 17th, 1898, p. 341.
19. Canada. *Hutton Papers*, February 1st, 1899, pp. 735-739.
20. Canada. *Hutton Papers*, September 1st, 1899, 66; and Canada. *SP. GOC's Report*, 1899, p. 27.
21. See Miller, Carmen. *Painting the Map Red*. Miller's book is the most comprehensive study of Canada's role in the war to date.
22. Miller, *Painting the Map Red*, p. 11.
23. Ibid. p. 12.
24. Ibid. pp. 50-51.
25. Preston, *Canada's RMC*, p. 172.
26. Ibid., p. 171.
27. Canada. *Hutton Papers*, December 27th, 1899, pp. 615-616. See also Preston, *Canada's RMC*, p. 173.
28. John Elliot Gilbert, Earl of Minto, GCMG, KG, (1845-1914), Scots Guards, served in Afghanistan (1879), and Egypt (1882); Military Secretary to Marquis of Lorne (1883-86), and Chief of Staff to Lord Middleton on the Canadian Northwest Rebellion campaign (1885); governor-general of Canada (1898-1904), and Viceroy of India (1905-1910).
29. RMC. *Proceedings of the Royal Military College Club of Canada, 1899*. No. 16, (Montreal, Chronicle Printing Co. 1900), pp. 122-125.
30. Canada. SP No.35. *Report of the General Officer Commanding, January 1901*, (Ottawa, King's Printer 1901), p. 31.
31. Ibid., p. 31.
32. Canada. *Minto Papers* Vol.17, January 7th, 1900, p. 26.
33. Preston, *Canada's RMC*, pp. 173-174.
34. Ibid. p. 174.
35. Ibid. pp. 174-175.
36. RMC Archives. Cadet file No.515 Loudon, W. J.; See also RMC Review, (November 1921); and, *As You Were!,* p. 182. Gentleman cadet No.515 W. J. Loudon entered RMC in August 1899 and graduated with his Certificate of Military Qualification in December 1901. He was immediately appointed a subaltern in the 2nd Battalion, Canadian Mounted Rifles, and sailed for South Africa with his new regiment in January 1902. Loudon fought at the Battle of Harts River where he was wounded. Returning to Canada at the end of the war, he went to work for the Canadian Pacific Railway in Montreal as a civil engineer.
37. *As You Were!* p. 175.
38. Ibid. p. 176.
39. Fraser, W. B. *Always a Strathcona.* (Clagary, Comprint Publishing Co. 1976), pp. 24-25.
40. It is no secret that Lord Strathcona would have like to see his old friend Colonel Sam Hughes command the unit, however to be fair and avoid personal attacks of patronage he resisted the temptation to become directly involved in the decision making cycle.
41. Fraser, *Always a Strathcona*, p. 26.
42. Ibid. p. 28.
43. Canada. *Minto Papers*, Vol.17. War Office. Cable from Grove, military secretary, to Kitson, March 20th, 1900, pp. 119-123.
44. For example, Gentleman Cadet No.491 K. Magee proceeded to South Africa as a corporal in 2RCRI, while No.341 F. E. Leach went as a private in 1CMR. In total 15 ex-cadets sailed for South Africa holding non-commissioned ranks. Some of these men later received commissions in the field or with the British army.
45. Canada. *Sessional Papers No.19, Report of the Deputy Minister, Department of Militia and Defence, April 1900*., (Ottawa, Queen's Printer 1900), p. 64.

Fuel Cell Technology

A Question of Remaining Relevant in the Future Battle Space

by Major A.P. Balasevicius, CD

The Canadian Army's vision for the next ten years is to evolve into an agile, globally deployable land force that is interoperable with its allies and coalition partners. The Army commander has asserted that he is committed to fielding "a viable and affordable force structure trained and equipped to generate advanced combat capabilities that target leading edge doctrine and technologies relevant to the battlespace of the 21st century."[1] Although easily articulated, the implementation of such a force structure is more complex. Nonetheless, the Army leadership full acknowledges, particularly in the current climate of fiscal constraint, that it must create a "force structure that is viable, achievable and affordable."[2]

Achieving an affordable field force may appear daunting, especially when one wishes to create viable structures using relevant advanced technologies. However, it need not be so. Despite the severe fiscal constraints of the past ten years, the Canadian Army has in fact managed to take the lead in some key areas such as the development of an Army's Tactical Command, Control and Communications System (TCCCS), surveillance and target acquisitions systems such as the Coyote and an advance light armoured vehicle (LAV III). Arguably, the Army is well positioned to transform itself into a viable, globally deployable and sustainable, albeit small, force. But, if it wishes to remain relevant to the future battlespace, the Army will have to continue to analyse emerging technologies and make prudent decisions on where to invest its limited resources.

Investing in unproven technologies is always fraught with risk.

Investing in unproven technologies, however, is always fraught with risk. Looking into the future is difficult for individuals who must balance national security with currently trusted weapon systems and technologies against the promises of untried futuristic hardware. Nonetheless, an area of emerging technology that should be actively pursued for development by the Land Force is fuel cells. According to the Canadian Army's publication *The Future Security Environment*, "Fuel cells (electric drives) could revolutionize ground vehicle systems by the year 2020." It explains, "The advantages of fuel cells include improved weight distribution, no transmission or drive trains, lower heat signature and lower fuel consumption."[3] These characteristics represent an exponential improvement to current technology and a dramatic tactical advantage on the battlefield. Clearly, the use of fuel cell technology could significantly improve the capabilities of the Land Force's vehicle fleet and provide the Army with a force that is logistically more deployable and far more sustainable once in theatre.

Paradoxically, fuel cell technology is not a new concept. It has been around since 1839, when it was first successfully demonstrated by English barrister William Grove.[4] By mixing hydrogen and oxygen gases in sulphuric acid, Grove demonstrated to the Royal Society in London that he could create energy.[5] This process produced electrons and water while releasing enormous amounts of energy. However, care had to be taken as hydrogen proved to be extremely dangerous when aerated as was graphically demonstrated in the Hindenburg airship disaster in 1937.[6]

This problem, coupled with the low output power achieved by the reaction, relegated the concept of fuel cell technology to the status of interesting but impractical phenomenon until the 1960s, when the National Aeronautics and Space Administration (NASA) incorporated fuel cell technology into the space program. Utilizing different materials, NASA's redesigned fuel cells were used to power both the Gemini and Apollo spacecraft and were chosen over the riskier nuclear and more expensive solar energy sources. In fact, fuel cells continue to provide electricity and water for space shuttle missions.[8] More recently, to comply with increasingly stringent environmental regulations, many of the world's major automotive manufacturers are working to commercialize fuel cells as the main source of power for production line vehicles. Fuel cells are also starting to power such things as buses, boats, trains and planes.

Ballard Power Systems Inc of Burnaby BC, a world leader in the development of fuel cells, has already built the world's first zero-emission engine. This 275 HP fuel cell engine powers heavy-duty transit busses in North America.[9] Ballard Power Systems has also built a commercially available 250 kW stationary natural gas powered fuel celled unit designed to power small buildings.[10]

The decision to use fuel cell technology is understandable when one sees how it actually functions. A fuel cell can best be described as electrochemical appliance that converts chemical energy into electrical energy. It operates on the basic principle of a common battery. However, unlike a battery, a fuel cell does not require recharging, and it will continue to produce energy as long as it is refuelled. The design of a fuel cell is based on the principle that fuel and an oxidant can be combined to produce energy. The chemical process that occurs within a fuel cell is initiated when hydrogen or hydrogen-rich fuel is supplied to one side of the cell and oxygen is fed into the other side. A membrane that will only allow positively charged ions to pass through separates the two distinct sides. Hydrogen fuel is usually fed into the anode side of the fuel cell, while oxygen passes over the cathode. When the hydrogen ion passes through the anode, it leaves behind an electron, which creates a negative charge. As the charge accumulates, energy is produced which can power an electrical device.[11]

The energy produced from this process is extremely efficient because the procedure is chemical rather than mechanical in nature. In the mechanical process of an internal combustion engine, a chemical conversion results in heat energy that is then converted to mechanical work.[12] In the chemical process of the fuel cell, there is a direct conversion of chemical energy to electrical (mechanical work) energy. This process removes the intermediate step of heat production and increases the overall level of efficiency of the system.[13]

Other advantages of fuel cells compared to internal combustion engines include improved weight distribution, very few working parts and lower operating temperatures.[14] Far more importantly, fuel cells promote energy diversity and offer a transition to renewable energy sources. The most abundant element on Earth, hydrogen, can be used directly to power the cells.[15] Unfortunately, hydrogen gas is not readily available in its primary molecular form and must be produced from other sources through some type of processing. Fuels that can be used to produce hydrogen include methanol, ethanol, natural gas and gasoline or diesel fuel. There is even the flexibility of running fuel cells on many more unconventional fuels such as methane gas from landfill sites and wastewater treatment plants.[16]

Despite their efficiency and flexibility, fuel cells are not without their problems. They are still an emerging technology, as a number of technical challenges need to be overcome before fuel cell usage becomes common. These challenges include reductions in size, weight and cost. The predominant challenge is that of cost. Fuel cells are still too expensive for commercial use. In order to achieve the power levels of a midsize automobile, a fuel cell would need to produce 60–90 kW.[17] When NASA started using fuel cell technology, it cost $500,000 per kW. Today that cost has dropped to $500 per kW. This means that it would cost about $25,000, or seven times the price of a conventional internal combustion engine, to produce a power plant capable of moving a mid size car. Experts believe that efficiencies resulting from the manufacturing process can bring that cost down to $50–60 for each kW.[18] Once this can be achieved, fuel cells will become an attractive alternative to more conventional power sources.

It is precisely for this reason that the military must actively pursue this emerging technology. Its most important military application will be in the area of power sources for fixed and mobile tactical and non-tactical military installations and vehicles. Researchers believe that the use of fuel cells in major combat vehicles could produce efficiencies of up to 2.6 times that of an internal combustion engine.[19] "A study produced by the Army Research Laboratory concluded that if the Abrams tank had been 50% more fuel efficient, and the technology exists today to make it so, the preparation time for the Gulf War would have been reduced by a full month."[20]

The implications are clear. By converting the current internal combustion engine to a more efficient fuel cell plant, military forces could double their current combat range at the tactical level. This increased capability would be applied throughout all elements of the Land Force and directly focused on enhancing the Army's offensive action and flexibility. The ability to move farther and longer without operational pauses would significantly increase the Land Force's tempo of operations while reducing its logistical burden.

The smaller logistical requirement associated with fuel cells is an exponential combat multiplier for the Army. Logistics is an inseparable component of combat operations, and an army's ability to reduce its logistical burden enhances its ability to deploy rapidly and sustain itself. Many nations today are currently

attempting to develop military forces that are "lighter, pack more firepower, and are able to respond to contingencies on short notice." Military analysts have correctly surmised that in order to do this "they will have to reduce logistical support."[21]

The ability to deploy into a theatre of operations and, once there, sustain forces for extended periods poses a number of problems for military planners. One of the most challenging quandaries is logistics. A large part of the logistical effort is the resources needed to transport, hold, handle and distribute fuel and spare parts. It is generally accepted that the larger the military forces involved in a particular operation, the more difficult will be the logistical problems that those forces encounter. According to Clayton R. Newell, "As the perspective of war moves from the tactical, through the operational and up to the strategic, the combat service support elements, both in and out of uniform, of a nation's armed forces will rather significantly outnumber the actual fighting forces."[22] Clearly, to allow military forces to be as logistically efficient as possible, areas offering significant potential for savings must be explored.

Fuel cells offer just such a potential savings. A major logistical problem is getting fuel into theatre and then supplying that fuel to deployed units. Lieutenant-General Paul J. Kern of the US Army provided some insight into the scope of the dilemma when he stated, "About 80% of what you move into a theatre is other than combat systems." He added, "a large part of that is fuel and the equipment to move it."[23] A United States Defense Department report concluded, "Fuel-hungry weapons systems actually decrease military effectiveness." It noted that 70 percent of the total equipment tonnage shipped during the six-month deployment prior to the Persian Gulf War was fuel.[24]

Reduced fuel requirements would provide other direct benefits beyond the savings in resources in terms of supply and distribution. There would be savings in combat forces and mission cost. One of the greatest concerns of the American armoured forces during the Gulf War was the constant fear of running out of fuel. To prevent this from happening, U.S. Army engineers were diverted from tasks supporting tactical operations so that they could build road networks and supply depots to keep fuel supply trucks as close to advancing fighting echelons as possible.[25] Vehicles powered by fuel cells could have reduced the fuel requirements by 50 percent. This lower requirement has the additional benefit of reducing the number of troops and vehicles that are required to transport fuel to the front lines. In addition, with a reduced demand, the need for a substantial improvement in infrastructure would also decrease, freeing a portion of the previously committed engineering combat support assets for direct combat operations.

Remaining relevant and, more importantly, on the cutting edge of the future battle space requires risk acceptance and a proactive mindset. It also means pursuing evolving technology that can exponentially increase combat effectiveness. The evolution of fuel cell technology has reached the point where it should be aggressively pursued as an alternate power source for the Army of the future. Utilizing fuel cell technology would offer advantages in terms of fuel efficiency, thus increasing ranges for vehicles and main battlefield weapons. As such, fuel cell technology would assist in the flexibility and rapid mobility of a given field force. In addition, it would represent great cost savings for a fiscally strapped military.

Clearly, the ability to use a common power generating system that does not demand the transportation and distribution of huge amounts of bulk fuel would have an enormous impact on future forces. Fuel cell vehicles that can achieve a fuel economy of 2.1 to 2.6 times greater than that of an internal combustion engine would represent substantial savings in fuel requirements and the ability to increase the range of current systems. With coalitions looking for future partners with the ability to rapidly deploy and sustain forces on operations for extended periods, fuel cell technology provides a possible solution. As such, military forces must keep pace with emerging military concepts and technological advances and be prepared to quickly integrate these new capabilities into their force structure. Minimizing logistical requirements by using fuel cell technology will play a major role in allowing ground forces to go farther, faster and stay longer. "If you can reduce the amount of fuel usage on the battlefield, you need fewer fuel trucks, drivers and crews—and you don't need all that training," extolled Vice-Admiral Richard H. Truly, the director of the National Renewable Energy Laboratory. "Even small gains in fuel efficiency," he explained, "can lead to major reductions in infrastructure and logistical support."[26] To attain financial efficiencies and cost

Vehicles powered by fuel cells could have reduced the fuel requirements by 50 %.

Major A.P. Balasevicius, CD

savings, as well as remain relevant in the future battle space, the Canadian Army must now boldly pursue fuel cell technology as an alterative to the internal combustion engine.

ABOUT THE AUTHOR...

Major Tony Balasevicius is an infantry officer and member of The Royal Canadian Regiment (RCR). He started his career as a platoon commander with 2 RCR in Gagetown and was then posted to the Canadian Airborne Regiment. After completing Land Force Command and Staff College, he was employed as the G1 and later as the G3 ops at Headquarters Special Service Force. Following this, he was posted back to 2 RCR, where he spent three years as a coy commander. In 1995, he took over the Army's interim parachute capability, which he helped evolve into the parachute company of the light battalion. A graduate of the Land Force Technical Staff Program and Canadian Forces College, Major Balasevicius is currently the Deputy Commanding Officer of 1 RCR.

BIBLIOGRAPHY

Ashley, Steve. "Fuel Cells Look Real." *Automotive Engineering International* March 2003. Accessed 15 March 2003 at http://www.sae.org/automag/features/fuelcells/index.htm .

Ballard Power Systems Inc. *Powering the Future—Annual Review* 1996.

Beason, Douglas. *DOD Science and Technology—Strategy for the Post-Cold War Era*. Washington: National Defense University Press, 1997.

Bokow, Jacquelyn. "Hydrogen Exonerated in Hindenburg Disaster." *Hydrogen Newsletter*, Spring 1997. http://www.ttcrop.com/nha/advocate/ad22zepp.

Canada. *Future Security Environment*. Kingston: Directorate of Land Strategic Concepts (DLSC), Department of National Defence, August 1999.

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

Coopey, Richard, U. Matthew and S. Graham. *Defence Science & Technology: Adjusting to Change*. Switzerland: Harwood Academic Publishers, 1993.

Dunningan, James F. *Digital Soldiers—The Evolution of High-Tech Weaponry and Tomorrow's Brave New Battlefield*. New York: Thomas Dunne Books, 1996.

Erwin, Sandra. "Twenty-Ton Combat Vehicle Slated for 2012." *National Defence Magazine*, September 2000.

Fuel Cells 2000. "What in the World is Going On?" Accessed 20 Jan 02 at http://www.fuelcells.org.

Fuel Cells 2000. "What is a Fuel Cell?" Accessed 20 Jan 02 at http://www.fuelcells.org.

Fuel Cell Commercialization Group. "What is a Fuel Cell?" Accessed 15 Jan 02 at http://www.ttcorp/fccg/fc_what1.

Garden, Timothy. *The Technology Trap-Science and the Military*. London: Brassey's Defence Publishers, 1989.

Gilmore, Gerry J. "Hybrid vehicle Saves Fuel, Pollutes Less." Accessed 20 Jan 02 at http://www.dtic.mil/armylink/news/may1999.

Ginsburg, Janet. "The Most Fuel Efficient that the Military Can Be." *Business Week Online*, September 2001.

Janelle, Denis, R. Hardwick and J. Hersey. "Fuel Cells as Power Sources for the Land Forces." Report completed for Land force Technical Staff course, May 1997.

Kamely Daphne, K. Bannister and R. Sasmor. *Army Science: The New Frontiers—Military and Civilian Applications*. United States: Library of Congress, 1993.

Newell, Clayton R. *The Framework of Operational Warfare*. London: Routledge, 1991.

Pokrovsky. *Science and Technology in Contemporary War*. New York: Praeger Publishing Inc, 1959.

Swisher, Becky. "Surpassing Gas Fuel Cells are Fuel of the Future." *Kansas Engineer Magazine*, January 1996.

ENDNOTES

1. Canada, *Shaping the Future of the Canadian Forces: A Strategy for 2020* (Ottawa: Department of National Defence, 1999), p. 1.
2. Ibid., p. 9.
3. Canada, *Future Security Environment* (Kingston: Directorate of Land Strategic Concepts (DLSC), Department of National Defence, August 1999), p. 27.
4. Fuel Cell Commercialization Group, "What is a Fuel Cell," accessed 15 Jan 02 at www.ttcorp/fccg/fc_what1...
5. Ibid.
6. Jacquelyn Bokow, "Hydrogen Exonerated in Hindenburg Disaster," *Hydrogen Newsletter*, Spring 1997, accessed 16 Jan 02 at www.ttcrop.com/nha/advocate/ad22zepp.
7. Fuel Cell Commercialization Group, p. 1.
8. Ibid., pp. 1-2.
9. Ballard, *Powering the Future* (Annual Review, 1996), p. 4.
10. Ibid., p. 14.
11. Bernadette Geyer, "Developments in Fuel Cell Technology," *Sustainable Development International*, April 1999, accessed 14 March 03 at http://www.sustdev.org/journals/edition.01/download/01.103.pdf.
12. Fuel Cell Commercialization Group, p. 1.
13. Ibid., p. 9.
14. Ibid., p. 1.
15. Denis Janelle, R. Hardwick and J. Hersey, "Fuel Cells as Power Sources for the Land Forces," report completed for Land force Technical Staff course, May 1997, pp. 26-27.
16. Ibid., p. 27.
17. Steve Ashley, "Fuel Cells Look Real," *Automotive Engineering International*, March 2003, accessed 15 March 2003 at http://www.sae.org/automag/features/fuelcells/index.htm.
18. Ibid.
19. Janelle, Hardwick and Hersey, p. 2.
20. Janet Ginsburg, "The Most Fuel Efficient that the Military Can Be," *BusinessWeek Online*, September 2001, p. 3.
21. Ibid.
22. Clayton R. Newell, *The Framework of Operational Warfare* (London: Routledge, 1991), pp. 98-105.
23. Ginsburg, p. 1.
24. Ibid., p. 1.
25. Ibid., p. 1.
26. Ibid., p. 2.

The Use and Abuse of Military History

by Professor Sir Michael Howard

This article is based on a lecture by Professor Sir Michael Howard to the Royal United Service Institute on 18 October 1961 and published in their journal, No. 107 in February 1962, p. 4-8. The article was also reprinted in Parameters, Journal of the US Army War College, Vol XI, No. 1, *pp. 9-14. It is reprinted here with the permission of the Royal United Service Institute.*

For military historians with backgrounds as professional soldiers, the idea of military history having a "use" is a perfectly natural one. They would hardly have taken to historical studies if they had not held it. But the historian who comes to military studies from academic life may have to overcome a certain inner scepticism about the use that can be made of his studies. This is partly for reasons, [with] which I will deal later, connected with the general nature of academic history as it has developed during the past century. It is due also to a certain fear in academic circles, where military history is liable to be regarded as a handmaid of militarism, thus its chief use may be propagandist and "myth-making." I should like to examine this fear at once, because it is not entirely without a basis of truth.

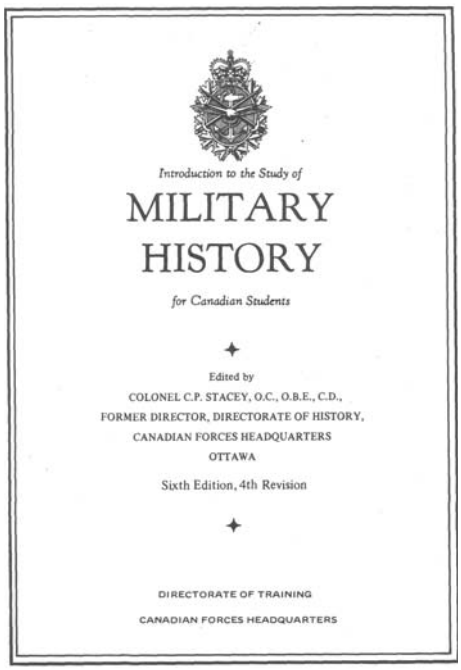
Does military history have any practical value?

When I use the term "myth-making," I mean the creation of an image of the past, through careful selection and interpretation, in order to create or sustain certain emotions or beliefs. Historians have been expected to do this almost since history began to be written at all, in order to encourage patriotic or religious feelings, or to create support for a dynasty or for a political regime. They usually have done so with no sense of professional dishonesty, and much splendid work they have produced in the process. The Tudor chroniclers who described the Middle Ages often did so in order better to set off the glories of their own times. The nationalist historians of 19th-century Germany such as Sybel and Treitschke, the maritime and nationalist historians of Victorian England like J. R. Seeley, wrote with a definite didactic purpose, to awaken emotions of patriotism and loyalty. In totalitarian regimes it is difficult and sometimes impossible to write any other kind of history. Even in mature democracies, subject to very careful qualifications, the "myth," this selective and heroic view of the past, has its uses. The regimental historian, for instance, has, consciously, or unconsciously, to sustain the view that his regiment has usually been flawlessly brave and efficient, especially during its recent past. Without any sense of ill-doing he will emphasize the glorious episodes in its history and pass with a light hand over its murkier passages, knowing full well that his work is to serve a practical purpose in sustaining regimental morale in the future.

The purist will deny that any purpose, however utilitarian or noble, can justify suppression or selection of this sort, either in regimental histories or in popular military histories. It certainly has some short-term dangers, which are often overlooked, as well as the moral dangers inseparable from any tampering with the truth. The young soldier in action for the first time may find it impossible to bridge the gap between war as it has been painted and war as it really is—between the way in which he, his peers, his officers, and his subordinates *should* behave, and the way in which they actually do. He may be dangerously unprepared for cowardice and muddle and horror when he actually encounters them, unprepared even for the cumulative attrition of dirt and fatigue. But nevertheless the "myth" can and often does sustain him, even when he knows, with half his mind, that it is untrue. So like Plato I believe that the myth does have a useful social function. I do not consider it to be an "abuse" of military history at all, but something quite different, to be judged by different standards. It is "nursery history," and I use the phrase without any disparaging implications. Breaking children in properly to the facts of life is a highly skilled affair, as most of you know and the realities of war are

among the most disagreeable facts of life that we are ever called upon to face.

It is in fact the function of the "historian proper" to discover and record what those complicated and disagreeable realities are. He has to find out, as Leopold von Ranke, the father of modern historiography put it, "what really happened." And this must inevitably involve a critical examination of the "myth," assessing and discarding its patriotic basis and probing deeply into the things it leaves unsaid. If these investigations reveal that our forces were in fact no braver than the enemy and no more competent than those of our allies, that strokes of apparently brilliant generalship were due to exceptional luck, or that the reputations of wartime commanders were sometimes grossly inflated, this is only to be expected, though the process of disillusionment is necessarily a disagreeable one and often extremely painful. For many of us, the "myth" has become so much a part of our world that it is anguish to be deprived of it. I remember my own bitter disillusion on learning that the great English victory over the Armada in 1588 was followed, not by a glorious peace, but (after 16 years) by as dishonourable a compromise settlement as England ever made, and by 20 years during which we were little more than a satellite of the great Spanish Empire. After this it came as less of a shock, on studying the Napoleonic wars from continental sources, to learn how incidental was the part Britain played in the climactic campaigns of 1812, 1813, and 1814 which finally smashed the Napoleonic hegemony of Europe, great though our indirect contribution to that overthrow undoubtedly was. Such disillusion is a necessary part of growing up in and belonging to an adult society; and a good definition of the difference between a Western liberal society and a totalitarian one—whether it be Communist, Fascist, or Catholic authoritarian—is that in the former the government treats its citizens as responsible adults and in the latter it cannot. It is some sign of this adult quality in our society that our government should have decided that its Official Histories of the Second World War were to be "histories proper," and not contributions to a national myth. Inevitably the honest historian discovers, and must expose, things which are not compatible with the national myth; but to allow him to do so is necessary, not simply to conform to the values which the war was fought to defend, but to preserve military efficiency for the future.


Introduction to the Study of
MILITARY HISTORY
for Canadian Students
Edited by
COLONEL C.P. STACEY, O.C., O.B.E., C.D.,
FORMER DIRECTOR, DIRECTORATE OF HISTORY,
CANADIAN FORCES HEADQUARTERS
OTTAWA
Sixth Edition, 4th Revision
DIRECTORATE OF TRAINING
CANADIAN FORCES HEADQUARTERS

What do we use military history for and what purpose does it serve us?

This brings me back to the question— Does military history have any *practical* value? Here again the academic historian must have his doubts, and those doubts are twofold.

First, the historian should he conscious of the uniqueness of every historical event. "History does not repeat itself," goes the adage, "historians repeat one another." The professional historian is concerned rather with establishing differences than with discerning similarities, and he usually shudders at the easy analogies drawn by laymen between Napoleon and Hitler, or Hitler and Khrushchev, or Pitt the Younger and Churchill. He is concerned with events occurring and people living within a certain society, and his task is to explain them in terms of that society. Analogies with events or personalities from other epochs may be illuminating, but equally they mislead; for only certain features in situations at different epochs resemble one another, and what is valid in one situation may, because of entirely altered circumstances, be quite untenable the next time it seems to occur. The historian must be always on the alert not to read anachronistic thoughts or motives into the past; and it is here that military historians without academic training are most likely to go astray. Hans Delbruck, perhaps the greatest of modern military historians, shrewdly put his finger on the weaknesses both of the military man who turns to history and of the academic who turns to military affairs. The latter, he pointed out, "labours under the danger of subscribing to an incorrect tradition because he cannot discern its technical

Analogies with events or personalities from other epochs may be illuminating, but equally they mislead.

impossibility." The former "transfers phenomena from contemporary practice to the past, without taking adequate account of the difference in circumstances."

As an example of an incorrect tradition subscribed to by academics, we may cite the belief, held almost without question until Delbruck himself destroyed it, that the Army with which Xerxes attacked the Greeks in 481 B.C. was two and a half million strong—a clear logistical impossibility. As to anachronistic thinking by soldiers turned historians, it would be invidious to cite by name the many studies, by enormously able soldiers, who attribute to commanders in medieval or 16th-century warfare thought-processes which they could have developed only after a long study of Jomini or Mahan, or an intensive course at Camberley or Greenwich, or both. The business of entering into the minds of other generations, of appreciating what Professor Geyl has called "the general otherness of earlier ages," is difficult and demands long training and wide reading. But the historian who thinks he *has* acquired it may become over-reluctant to admit that different ages and their events can ever profitably be collated or compared, which is, perhaps, no less of an error.

The second ground for doubt of the utility of military history, in the mind of the academic historian, is his awareness that he is studying not what happened in the past, but what historians say happened in the past. Spenser Wilkinson pointed out in his inaugural lecture at Oxford that the first job of the military historian was "the sifting of the evidence with a view to the establishment of the facts. The second . . . is the attempt to arrange the facts in their connection of cause and effect." But it does not work out like that. The number of possibly relevant "facts" is infinite. (Are we not hearing constantly fresh evidence about Napoleon's medical condition, which explains his behaviour at Waterloo?) And the historian's mind is not a blank sheet of paper, however much he may try to clear his mind of prejudice and preconceptions. He has to start with certain preconceived ideas and he may not be conscious of all of them. He will be interested only in answering certain questions. He imposes his own order on the data before him. To quote Geyl again, he "must use his material by choosing from it, ordering it, and interpreting it. In doing so he is bound to introduce an element of subjectivity...Behind the facts, behind the goddess History, there is a historian."

This need for selection is particularly great in the case of the military historian, especially when he deals with operations. The evidence is confused and usually contradictory. Eyewitnesses are in no psychological condition to give reliable accounts of their experiences. Loyalty and discretion may result in the suppression of discreditable evidence, especially if all ultimately turns out well. Military historians, more than any other, have to create order out of chaos; and the tidy accounts they give of battles, with generals imposing their will on the battlefield, with neat little blocks an arrows moving in a rational and orderly way, with the principles of war being meticulously illustrated, are an almost blasphemous travesty of the chaotic truth. Some attempt must be made to sort order out of chaos; that is what historians are for. But we would do well, says the sceptical academic, not to take this orderly account even for an approximation to what really happened, much less base any conclusions on it for the future.

All these are good grounds for caution "using" military history. They are good grounds for regarding the tidy dogmatic generalizations of certain staff college crammers as being a monstrous abuse of military history which has gone on far too long. But I do not consider them grounds for regarding military history as useless. Given all these academic caveats, war is nonetheless a distinct and repetitive form of human behaviour. Unlike politics, or administration or economic activity, which are continuing and constantly developing processes, war is intermittent, clearly defined, with distinct criteria of success or failure. We cannot state dogmatically that Britain is better governed, now, or that her economy is more flourishing, than it was in 1761. We can disagree as to whether certain historical events—the Reformation, or the Glorious Revolution, or the Great Reform Act—were triumphs or disasters. The historian of peace can only chronicle and analyze *change*. But the military historian knows what is victory and what defeat, what is success and what failure. When activities do thus constantly recur, and their success can be assessed by a straightforward standard, it does

The study of military history should also directly improve the officer's competence in his profession.

Professor Sir Michael Howard

not seem over-optimistic to assume that we can make judgements about them and draw conclusions which will have an abiding value.

But the academic historian is only one critic of the view that military history may have a use. Yet more formidable is the attack of the practical serving soldier—the man conscious of the technical complexities of profession and understandably impatient of the idea that the experience of Napoleon or Stonewall Jackson can have any relevance to an age of tanks and missiles and machine guns. With his arguments I am far worse equipped to deal. But certain useful things can still be said.

Canadian infantry mounted on Kangaroo Armoured Personnel Carrieres prior Operation Totalize, Normandy, 7 August 1944. Canadian performance in Normandy has been hotly debated over the last several years. Our efforts to learn the truth must be based on evidence and analysis—not on patriotisim, widespread assumptions and sweeping generalizations—and that establishing the truth, no matter how unpalatable, is important. (Courtesy Donald E. Graves)

There are two great difficulties with which the professional soldier, sailor, or airman has to contend in equipping himself as a commander. First, his profession is almost unique in that he may have to exercise it only once in a lifetime, if indeed that often. It is as if a surgeon had to practice throughout his life on dummies for one real operation; or a barrister appeared only once or twice in court towards the close of his career; or a professional swimmer had to spend his life practicing on dry land for an Olympic championship on which the fortunes of his entire nation depended. Second, the complex problem of running an army at all is liable to occupy his mind and skill so completely that it is very easy to forget what it is being run *for*. The difficulties encountered in the administration, discipline, maintenance, and supply of an organization the size of a fair-sized town are enough to occupy the senior officer to the exclusion of any thinking about his real business: the conduct of war. It is not surprising that there has often been a high proportion of failures among senior commanders at the beginning of any war. These unfortunate men may either take too long to adjust themselves to reality, through a lack of hard preliminary thinking about what war would really be like, or they may have had their minds so far shaped by a lifetime of pure administration that they have ceased for all practical purposes to be soldiers. The advantage enjoyed by sailors in this respect is a very marked one; for nobody commanding a vessel at sea, whether battleship or dinghy is ever wholly at peace.

If there are no wars in the present in which the professional soldier can learn his trade, he is almost compelled to study the wars of the past. For after all allowances have been made for historical differences, wars still resemble each other more than they resemble any other human activity. All are fought, as Clausewitz insisted, in a special element of danger and fear and confusion. In all, large bodies of men are trying to impose their will on one another by violence; and in all, events occur which are inconceivable in any other field of experience. Of course the differences brought about between one war and another by social or technological changes are immense, and an unintelligent study of military history which does not take adequate account of these changes may quite easily be more dangerous than no study at all. Like the statesman, the soldier has to steer between the danger of repeating the errors of the past because he is ignorant that they have been made, and the danger of remaining bound by theories deduced from past history although changes in conditions have rendered these theories obsolete. We can see, on the one hand, depressingly close analogies between the mistakes made by the British commanders in the Western Desert in their operations against Rommel in 1941 and 1942 and those made by the Austrian commanders against Bonaparte in Italy in 1796 and 1797; experienced, reliable generals commanding courageous and well-equipped troops, but slow in their reactions, obsessed with security, and dispersing their units through fear of running risks. On the other hand, we find the French General Staff both in 1914 and 1939 diligently studying the lessons of "the last time," and committing appalling strategic and tactical blunders in consequence; conducting operations in 1914 with an offensive ferocity which might have brought victory in 1870 but now resulted in massacre; and in 1939 preparing for the slow, thorough,

yard-by-yard offensive which had been effective at the end of the First World War and now was totally outdated. The lessons of history are never clear. Clio is like the Delphic oracle: it is only in retrospect, and usually too late, that we can understand what she was trying to say.

Three general rules of study must therefore be borne in mind by the officer who studies military history as a guide in his profession and who wishes to avoid its pitfalls.

First, he must study in *width*. He must observe the way in which warfare has developed over a long historical period. Only by seeing what does change can one deduce what does not; and as much can be learned from the great "discontinuities" of military history as from the apparent similarities of the techniques employed by the great captains through the ages. Observe how in 1806 a Prussian army soaked in the traditions of the greatest captain of the 18th century, Frederick the Great, was nonetheless destroyed; and how the same thing happened in 1870 to a French army brought up in the Napoleonic mould. Consider whether in the conditions of warfare of 1914-18 the careful studies of Napoleon's or Moltke's methods, and the attempts to apply them on both sides, were not hopelessly irrelevant; and whether indeed the lessons which Mahan drew from his studies of 18th-century naval warfare did not lead our own Admiralty to cling to the doctrine of the capital fleet for so long that, in the age of the submarine and the aircraft carrier, this country was twice brought within measurable distance of defeat. Knowledge of principles of war must be tempered by a sense of change, and applied with a flexibility of mind which only wide reading can give.

Next he must study in *depth*. He should take a single campaign and explore it thoroughly, not simply from official histories but from memoirs, letters, diaries, even imaginative literature, until the tidy outlines dissolve and he catches a glimpse of the confusion and horror of the real experience. He must get behind the order subsequently imposed by the historian, and recreate by detailed study the omnipresence of chaos, revealing the part played not only by skill and planning and courage, but by sheer good luck. Only thus can he begin to discover, if he is lucky enough not to have experienced it at first hand, what war is really like—"what really happened."

And lastly, he must study in *context*. Campaigns and battles are not like games of chess or football matches, conducted in total detachment from their environment according to strictly defined rules. Wars are not tactical exercises writ large. They are, as Marxist military analysts quite rightly insist, conflicts of *societies*, and they can be fully understood only if one understands the nature of the society fighting them. The roots of victory and defeat often have to be sought far from the battlefield, in political, social, and economic factors which explain why armies are constituted as they are, and why their leaders conduct them in the way they do. To explain the collapse of Prussia in 1806 and of France in 1870, we must look deep into their political and social as well as into their military history. Nor can we understand fully the outcome of the First World War without examining the social and political reasons why the Central Powers had so much less staying power than the Western Allies, so that Germany collapsed within a few months of her most sweeping triumphs. Without some such knowledge of the broader background to military operations one is likely to reach to tally erroneous conclusions about their nature, and the reasons for their failure and success. Today, when the military element in the great power struggles of the world is inhibited by mutual fears of the destructive power of the weapons available to both sides, such political and economic factors have an importance such as they have never possessed before; but even in the most apparently formal and limited conflicts of the past they have never been entirely absent.

Pursued in this manner, in width, in depth, and in context, the study of military history should not only enable the civilian to understand the nature of war and its part in shaping society, but also directly improve the officer's competence in his profession. But it must never be forgotten that the true use of history, military or civil, is, as Jacob Burckhardt once said, not to make men clever for next time; it is to make them wise forever.

ABOUT THE AUTHOR

Professor Sir Michael Howard's knowledge of warfare has been gained through experience and study. Having left Oxford to join the Coldstream Guards in 1943, he served in Churchill's Personal Security Detail before earning a Military Cross at Salerno. He was twice wounded before the end of the war.

After finishing his Oxford degree, Sir Michael joined the Department of History at King's College London in 1947 and was instrumental in creating both the Department of War Studies and the Centre for Military Archives at the College. In 1964, he became the College's, and the country's, first Professor of War Studies. In 1970, he moved to Oxford where he became the Chichele Professor of the History of War and later the Regius Professor of Modern History. He concluded his teaching career at Yale in 1993, as the first Robert A Lovett Professor of Military and Naval History.

A Special Operations Capability for Canada

by Major J.H.G. Lizotte, CD

May you live in interesting times!—a mythical Chinese proverb, or a curse?

INTRODUCTION

We are indeed living in interesting times, but only time itself will tell whether they will be proverbial or cursed. In the wake of the current global war on terrorism, the Canadian Army is facing its own structural, doctrinal, personnel, financial and operational challenges. Most of these challenges were already present before 11 September 2001, but one has particularly been brought forward by the different requirements of the war on terrorism.

Before the terrorist attacks on New York and Washington, the Canadian Army was on the verge of disbanding its three light infantry battalions. The Army would instead rely on six mechanized infantry battalions for the infantry portion of its general-purpose combat capable medium weight forces. The deployment of 3rd Battalion, Princess Patricia's Canadian Light Infantry (3 PPCLI) in Afghanistan in February 2002 quickly demonstrated that the decision to disband the light battalions may have been premature. The Chief of Land Staff's (CLS's) desire to reduce to breadth of capabilities in the Army in favour of more depth of capabilities was laudable when facing a financial crisis as the Canadian Army was and still is; however, that situation was quickly overcome by the war on terrorism.

The deployment of 3rd Battalion, Princess Patricia's Canadian Light Infantry in Afghanistan quickly demonstrated that the decision to disband the light battalions may have been premature.

In the recently published Army Strategy, the CLS announced that the light infantry battalions would remain and that the Army was examining "how these light battalions should be structured, how capability can be optimised for operations in complex terrain and how much their skill sets should merge into those required by special operations forces. This latter capability will give the Army the flexibility to expand its special operations capability."[1] We are now at a crossroads where we know we need a special operations capability, but the structure of the light infantry battalions and their exact roles are still being defined. This paper will therefore examine possible models for the development of a Canadian home-grown special operations capability.

That examination will seek to answer the following questions:

1) Has Canada employed special operations forces before?
2) Can we do special operations now?
3) Do we satisfy Colin Gray's conditions for a successful special operations capability?
4) What role would a Canadian special operations capability fulfil?
5) What models could be used by Canada to satisfy its requirements for a special operations capability?
6) Which model is the best suited to fulfil Canada's requirements for a special operations capability in today's situation.

The first question will be answered by examining the historical basis of Canada's involvement with special forces (SF) / elite units to confirm that the military culture will allow for the creation and the nurturing of such a capability. The second question will be answered by reviewing the current defence and foreign policy to ensure that no policy obstacles could prevent the creation of a Canadian special operations capability. The third question will consist of applying Colin Gray's conditions for success, as posited in his 1999 *Parameters* article, and confirming that Canada meets these conditions. The fourth question will be answered through a review of the conclusions of a Canadian work group on the establishment of a special operations capability, which included the roles required of the special operations capability. Question 5 will be answered by establishing three models whose potential realization would satisfy the Canadian requirements. Finally, the last question will be answered by evaluating each of the models developed in the preceding section through a framework of Canadian-specific factors such as affordability, relevance to task and sustainability. Once this evaluation is complete, a conclusion will be drawn regarding which model is best suited to fulfil the Canadian special operations capability requirements.

DEFINITIONS

The research completed for this paper quickly illuminated the variety of interpretations of what

constitutes SF and elite infantry units. In order to standardize the terms, the following definitions will be used throughout this paper. The United States' Joint Publication 3-05 defines SF as:

> *US Army forces organized, trained, and equipped specifically to conduct special operations. Special forces have five primary missions: unconventional warfare, foreign internal defence, direct action, special reconnaissance, and counterterrorism. Counterterrorism is a special mission for specially organized, trained, and equipped special forces units designated in theatre contingency plans.*[2]

Throughout this paper, SF will be used to mean specialized units such as the US Army's Green Berets or counterterrorist units such as Canada's own Joint Task Force (JTF) 2.

Also included in this paper are elite infantry units that are not generally considered to be SF. This generic term is not defined in any current military glossary. However, for the purpose of this paper, an elite infantry unit is considered to be a force such as the US Army's Rangers, certain airborne units and marines (US and UK) that is organized and trained for a special purpose. This force can be used for special operations missions but would not be considered "specialized" in the sense of SF.

Considering the above, the Canadian Army's dilemma is determining the mix of specialized units, non-specialized units and conventional infantry units appropriate to resolve the dilemma.

CANADA'S HISTORICAL BACKGROUND WITH SF AND ELITE UNITS

The reader may be surprised to find out that Canada has had very little experience with "true" SF units in its military history. The Canadian counterterrorist unit, JTF 2, is the first foray into the realm of SF. The unit was created in 1993 to replace the Royal Canadian Mounted Police counterterrorist unit. Since then, it has been deployed overseas but it is mainly focused on domestic law enforcement threats.[3]

Canada has had a lot more experience with elite light infantry units. The first unit of this type was the 1st Canadian Parachute Battalion, which was created on 1 July 1942.[4] This unit was deployed in Great Britain in July 1943, where it was then attached to the British 6th Airborne Division. The 1st Canadian Parachute Battalion was heavily involved in the Normandy campaign. Later, "1st Canadian Parachute Battalion earned the distinction of having been the only Canadian combat unit to see action in the Ardennes."[5] The unit finished the war in north western Europe, parachuting across the Rhine River as part of Montgomery's attempt to breach the last German defensive line. The war ended on 8 May 1945 with the battalion in Wismar on the Baltic Sea. 1st Canadian Parachute Battalion went the furthest east of any Canadian unit inside the German Reich during the Second World War.[6]

A mass jump by the 1st Canadian Parachute Battalion, England, 7 February 1944. (Courtesy National Archives of Canada)

Canada has had very little experience with "true" SF units…

In July 1942, a second parachute battalion—2nd Canadian Parachute Battalion—was also activated. "This unit title, however, was misleading. It was not a parachute battalion, but rather a commando unit. The designation was merely given for security reasons to cover the true operational mandate of its members."[7] The 2nd Canadian Parachute Battalion constituted the Canadian contingent of the First Special Service Force (FSSF), a Canada-US unit raised to infiltrate the mountainous fjords of Norway to destroy the hydroelectric capacity of that country. When that project was cancelled in early 1943, the FSSF was re-trained for amphibious operations and was deployed for the first time during the operation to retake the island of Kiska in the Aleutians on 15 August 1943.[8] Following this battle, the FSSF was transferred to the Mediterranean theatre of operations, where it fought at "Monte La Difensa, blocking the Fifth US Army's advance [after having been] unsuccessfully assaulted by a number of other Allied units. In late December 1943 and early January 1944, the Force captured Monte Sammucro and Monte Mojo and held them against heavy odds."[9] The FSSF was then sent to the Anzio beachhead, where it again distinguished itself and earned the nickname the "Devil's Brigade" from the Germans. After entering Rome and serving in the south of France for Operation ANVIL-DRAGOON, the unit was disbanded in early December 1944.[10] Throughout the Italian campaign, the FSSF suffered heavy casualties, which can be attributed to the fact that the unit was used as shock troops but with little or no supporting arms.

The end of the Second World War marked the apparent end of Canada's involvement with elite units. "The long costly global struggle had taken its toll, and a debt-ridden and war-weary government was intent on a

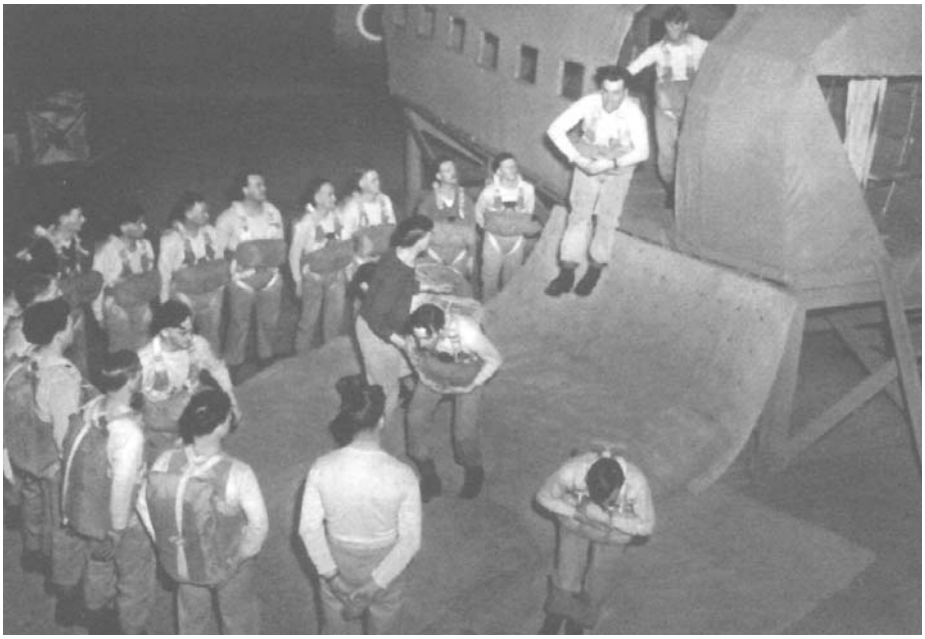
Major J.H.G. Lizotte, CD

post-war army which was anything but extravagant."[11] The parachute-training establishment was, however, kept alive by various schemes to include research in cold weather parachuting, the development of equipment and some training of paratroopers.[12] These efforts culminated in 1947 with the creation of a Canadian Special Air Service (SAS) Company. The purpose of this SAS Company "was defined as filling a need to perform army, inter-service, and public duties such as army/air tactical research and development; demonstrations to assist with army/air training; airborne fire fighting; search and rescue; and aid to the civil power."[13] Eventually, the SAS Company took on a supplementary role: "to preserve and advance the techniques of SAS [commando] operations developed during WW II 1939-1945."[14]

The creation of the SAS Company provided the impetus for the next phase in the development of a Canadian airborne capability. "The resurrection of a viable national airborne capability was inextricably tied to the American concern for Canada's northern regions and the avenue of approach they perceived it [sic] to represent."[15] The SAS Company became the nucleus of a parachute brigade group-a brigade sized formation that included divisional artillery, engineer and logistic assets-known as the Mobile Striking Force (MSF). The formation of the MSF was authorized in 1948 in an attempt to placate American concerns over the Arctic frontier because of the deteriorating relations between the US and the Soviet Union.

> *The MSF was an airborne brigade which was made up of various battalions from different units across Canada. This brigade was stationed at widely divergent locations in Canada, and it carried out continuation parachute training and arctic warfare until 1958 at which time the size of the force was reduced.*[16]

As the mythical Phoenix rising from its ashes, the parachute capability regained prominence in the 1960s. At that time, the concept of an army rapid-reaction force was gaining popularity in military circles. The concept culminated with the creation of the Canadian Airborne Regiment in 1968. The Regiment included an airborne headquarters and signal squadron, two infantry companies—called commandos—an airborne field battery and an airborne field squadron.[17]



Soldiers from the Special Air Service Company practicing aircraft exit. Created from confused government and army policy over its role, this unit gained its unique character from its Commanding Officer, Captain Guy D'Artois, who forcefully trained it as a specialized commando unit. (Courtesy National Archives of Canada)

> *The Regiment's mandate was impressive. Lieutenant-General W.A.B. Anderson, the FMC Commander [Force Mobile Command], dictated that the Cdn AB Regt was to be capable of performing a variety of tasks which included: the defence of Canada, the UN stand-by role, peacekeeping operations, missions in connection with national disaster, Special Air Service (SAS)-type missions, coup de main tasks in a general war setting and responsibility for parachute training in the Canadian Forces.*[18]

From that point onward, the Canadian Airborne Regiment was the elite infantry unit of the Canadian Army. It attracted the best soldiers, non-commissioned officers and officers. The Canadian Airborne Regiment served gallantly in United Nations (UN) missions in Cyprus in 1974, in 1981, and once more in 1986. The Regiment also deployed to Somalia in December 1992 with UNITAF, where it was responsible for the Belet Huen area. Although successful in the main, disciplinary problems—including incidents of murder and torture of prisoners inside the Canadian camp—coupled with the report of hazing back in Canada, prompted the Canadian government to disband the Regiment on 5 March 1995. Since then, companies in each of the three light battalions of the infantry regiments—The Royal Canadian Regiment, Princess Patricia's Canadian Light Infantry and Royal 22e Régiment—have maintained the parachute function.

At the individual soldier level instead of formed units, Canada has also undertaken some roles that are similar to SF or elite infantry soldiers in other countries and those roles defined earlier as specific to SF: unconventional warfare, foreign internal defence, direct action, special reconnaissance and counterterrorism. The only unclassified source on this question is the operation, Op SCULPURE, still currently under way in Sierra Leone. "Operation Sculpture is Canada's contribution to this British-

In April 1974, 1 Commando of the Canadian Airborne Regiment deployed to Cyprus on peacekeeping duties, only to find itself in the midst of a coup and then a war. The remainder of the Regiment and other troops were rushed in. In the brief period of combat, 30 Canadian soldiers were wounded and two killed. (Courtesy Combat Camera)

on Defence. The document presents a fairly realpolitik view of the world:

> *As a nation that throughout its history has done much within the context of international alliances to defend freedom and democracy, Canada continues to have a vital interest in doing its part to ensure global security, especially since Canada's economic future depends on its ability to trade freely with other nations.*[20]

At the same time, the *White Paper* upholds the traditional Canadian values of liberalism, freedom from oppression, humanitarian assistance and democracy: "We care about the course of events abroad, and we are willing to work with other countries to improve the lot of all manner of peoples."[21]

The *White Paper* posits a security environment in which the demise of the Soviet Bloc served as a catalyst for the state of world disorder that we find today. Issues of global population pressures, refugees, "failed states," the revival of old hatreds and the proliferation of weapons of mass destruction (WMD) are all assessed to contribute to a less stable security environment.[22] Therefore, the force structure associated with the *1994 White Paper* on Defence recommends multi-purpose, combat-capable forces in order to "fight alongside the best, against the best."[23] The *White Paper* asserts definitively that Canada does not desire to possess all the capabilities inherent in many other armed forces and uses the examples of the capabilities that Canada has renounced in the past, such as aircraft carriers, cruisers and medium lift helicopters.[24]

On the foreign policy side, the most current document produced by the Department of Foreign Affairs and International Trade (DFAIT) is the 1995 document titled *Canada in the World*. Although Canada does not possess an equivalent to the United States' National Security Strategy (NSS), the Canadian foreign policy and defence policy documents are relatively well aligned. Of course, both are slanted towards their own traditional field of expertise, with the foreign policy being more "Wilsonian" and the defence policy more realpolitik. However, both documents acknowledge the possible chaotic future that the planet may face at the beginning of the 21st century. The foreign policy paper proposes that diplomacy and the "human security agenda" should be Canada's primary means of dealing with conflicts in the international community. "Where stability does break down, and armed conflict looms, the international community must use all measures at its disposal, including a graduated set of diplomatic and military steps, broadly conceived and co-operatively executed, to prevent a slide into war."[25]

…the parachute capability regained prominence in the 1960s…

led international military advisory and training initiative [IMATI]. The eleven members of the Canadian contingent provide advice on training, logistics and administration, and deliver tactical training ranging from basic recruit courses to brigade-level exercises."[19] This is clearly a foreign internal defence (FID) role accomplished by selected officers and non-commissioned officers from various units of the Canadian Forces. It is understood that any military unit can accomplish FID missions but for reasons of specialized skills such as language and cultural acumen, SF units are more capable of conducting this role.

As the reader has probably quickly realized, Canada's history with SF and elite units has been very cyclical. It can also be characterized as hesitant and uncertain, as will be explained more fully in the next section.

CANADIAN DEFENCE POLICY AND SECURITY ENVIRONMENT

Current Canadian defence policy is outlined in the *1994 White Paper*

A final document warrants consideration-DND's strategic framework for defence planning and decision-making. Entitled *Shaping the Future of the Canadian Forces: A Strategy for 2020*, this document expands on the Defence *White Paper* and examines the capabilities required by the Canadian Forces (CF) in 2020. Regarding force structure, the document establishes strategic direction: "Move towards an adaptable, multi-purpose, combat-capable force structure that makes the best mix of capital to produce desired tactical and operational level capabilities."[26] Perhaps more relevant to this paper is one of the five-year targets in the third objective: modernize. This target aims at "Develop[ing] new task tailored capabilities to deal with asymmetric threats and weapons of mass destruction."[27]

The above review of current Canadian policy, both defence and foreign, supports the conclusion that nothing prevents the Army from developing a special operations capability. This

Major J.H.G. Lizotte, CD

capability would conform to the objectives of both the defence policy and the foreign policy. It would certainly fulfil the strategic direction given in *Shaping the Future of the Canadian Forces: A Strategy for 2020*, where a special operations capability would count as a task tailored capability to deal with asymmetric threats posed by the war on terrorism and also against the proliferation of WMD.

THE STRATEGIC UTILITY OF A SPECIAL OPERATIONS CAPABILITY

As Colin Gray noted in a 1999 *Parameters* article, "Special operations are more likely to generate strategic utility when the mission they support has political legitimacy."[28] Earlier in this paper, it was demonstrated that there is no restriction in current Canadian policies that would prevent the creation of a special operations capability. However, before it is created, the strategic utility of such a capability must be clearly substantiated not only to the Army, which is already "sold" on the concept, but to our political leadership as well, those who must approve any deployment of such a capability in a theatre of operations.

Gray asserts that, to be successful, special operations require certain conditions for success. He defined eleven categories of conditions that are shown in Figure 1.

By examining each of these conditions against the current Canadian situations, I believe that Canada does meet these conditions and that creating such a capability would provide strategic utility in the current Canadian context. In short, the utility of a Canadian special operations capability will be established.

Policy Demand

According to Gray, special operations forces (SOF) "need to meet the distinctive policy demands of each era."[30] The global war on terrorism that we are currently fighting will undoubtedly last for quite a few more years. The deployment of members of the JTF 2 and a light infantry battalion in Afghanistan for Operation ENDURING FREEDOM is a significant shift in the Canadian traditional response to international crises. Just a few years ago, Canada would have sent troops with the International Security Assistance Force (ISAF) not under operational control of the US forces in Afghanistan in order to fight the Taliban and al-Qaeda on the ground.

This fundamental change to the international context is the best indication of Canada's requirement for a SOF capability in order to allow it to carry out its international responsibilities and fulfil the new role it wishes to play in a competent fashion.

Politics

"SOF need permissive domestic conditions, a tolerant political and strategic structure."[31] For the same reasons that Canada now has a policy requirement for a special operations capability for the global war on terrorism, there now exists a much more receptive political audience in Canada. By the same token, political and military decision-makers are more inclined to deploy and employ combat troops as shown by the Canadian involvement in Operation ENDURING FREEDOM. The Canadian population is also more open to military deployments other than peacekeeping and remains firmly behind the war on terrorism.

> *In a busy year when headlines screamed of Olympic hockey gold, unthinkable killings in British Columbia and the drawn-out resignation of the prime minister, the deployment of Canadian troops to Afghanistan—and the death of four of those soldiers last April—has been chosen as the top Canadian news story of 2002 in the annual survey of newspaper editors and broadcasters by The Canadian Press and Broadcast News.*[32]

Feasible Objectives

"SOF need objectives that they can secure without the aid of regular units."[33] One of the reasons why Canada got rid of its light infantry battalions was simply that they were too "light" to fight in high intensity warfare. The Army Strategy intends to resolve this issue. "It is intended to increase protection, mobility and firepower for light infantry battalions and to make them more interchangeable with LAV [light armoured vehicle] battalions across the spectrum of operations while maintaining their special skills."[34] A critical requirement will be to ensure that any SF or elite unit created to fulfil our need for a special operations capability will be tasked according to its capacities. History is replete with examples of elite units or SF used in wrong conditions where they suffered high casualties or failed to accomplish their mission.

Strategy

"SOF need a high command that possesses a strategic mentality."[35] Several initiatives of the past two decades have had a positive effect on Canada's Armed Forces strategic outlook. The creation of a national Joint Staff at National Defence Headquarters (NDHQ) and the development of strategic guidance such as Strategy 2020 are but two examples. "In 1999, the DMC [Defence Management Committee] team produced a document known as Strategy 2020, which defined the vision and strategic goals for the CF to the year 2020. This was a first for DND, and it demonstrated the commitment of senior

SPECIAL OPERATIONS: CATEGORIES OF CONDITIONS FOR SUCCESS	
Policy Demand	Enemy Vulnerabilities
Politics	Technological Assistance
Feasible Objectives	Tactical Competence
Strategy	Reputation
Flexibility of Mind	History
Absence of Alternatives	

Figure 1: Conditions for Success for Special Operations[29]

leaders to improve institutional strategic focus."[36]

Flexibility of Mind

"SOF need the ability to support regular military operations, as well as to perform independently."[37] This condition relates to the friction that sometimes builds up between SF/elite units and their conventional colleagues in the Army. This is often exacerbated by military and political leadership that have little idea of what SF/elite units can do. "Perhaps the most important ingredient for sound civil-military relations regarding elite units is restraint on the part of politicians tempted to be amateur soldiers."[38]

Absence of Alternatives

"SOF prosper when conventional operations are prohibited by political factors, ruled out as too expensive, or otherwise are deemed inappropriate."[39] The known deployments of the JTF 2 in Bosnia, Zaire and Afghanistan—to say nothing of alleged deployments elsewhere in the world as reported by the media but never confirmed by DND or the government—is a good indication that the political and military leadership possesses sufficient savvy to deploy our sole SF capability when deployment of a regular unit would be difficult or politically unwise.

Enemy Vulnerabilities

"SOF need an enemy with exploitable vulnerabilities."[40] The key to effective employment of SF/elite unit in a conflict lies in the proper identification of the enemy's centre of gravity and then finding the critical vulnerability that our SF/elite units can exploit. As Clausewitz noted, "one must keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain centre of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed."[41]

Technological Assistance

"SOF need every advantage that technology can provide."[42] Canada is in the process of transforming and modernizing its armed forces. By using the experiences of our allies in the field of SOF, we could create a special operations capability at the cutting edge of current technology, and, by applying the *savoir-faire* of the typical Canadian soldier, we could eventually develop our own indigenous technological base of SOF related equipment.

Searching for a role in the Brave New World: Members of the Canadian Airborne Regiment Battle Group at Mogadishu Airport in 1993 prepare to deploy to their area of operations. (Courtesy Combat Camera)

Tactical Competence

"Only SOF skilled in their trade should conduct special operations."[43] Gray describes what is required for tactical competence in SF/elite unit, which are summarized at Figure 2. The creation of the JTF 2 in 1993 went a long way in supporting the extension of a special operations capability into our light infantry battalions. The presence of a certain number of counterterrorist-trained operators and other SF types would allow the training of a new capability. Canada has also been sending junior officers and non-commissioned officers to several US courses such as the Ranger school and the Special Forces Qualification Course. Pooling these trained assets would create a baseline cadre of trainers to start our own special operations capability.

Reputation

"It is most desirable that SOF should be feared."[45] This is most likely our weakest condition for success. Canada does not have a reputation for use of SF/elite units in conflicts where national interests are not threatened. We would much rather get involved diplomatically and, when the military is involved, we tend to act as peace-makers or peacekeepers. That does not mean that our soldiers do not have a reputation for professionalism; rather, Canada is not known for its menacing posture. The war on terrorism may not have reversed this trend, and the Canadian government's admittedly hesitant stance on possible war with Iraq is also pointing to a change in the national views on the use of military force to protect its national interest. [46 47]

History

In wrapping up his conditions for success, Colin Gray asserts that "Special operations need to be studied as integral to the strategic history of conflict and war."[48] Special force /

Major J.H.G. Lizotte, CD

CRITICAL TACTICAL QUALITIES FOR SOF SUCCESS
⇨ a simple chain of operational command
⇨ to be planned and executed in ways that are agile, flexible and versatile
⇨ excellent leadership qualities, initiative and resourcefulness in all ranks
⇨ timely and accurate intelligence on mission targets
⇨ secrecy, so as to preserve the tactical surprise mandated for operations that typically will be self-contained
⇨ highly trained and suitably equipped personnel
⇨ simple, fault-tolerant plans
⇨ plans by some of the same people who will lead the missions
⇨ to be co-ordinated carefully with supporting arms, consistent with the need for security

Figure 2: Critical SOF Tactical Qualities [44]

elite units are national strategic assets. The impact that a small number of highly trained troops can have on a conflict is definitely an asymmetric application of force compared to the use of larger conventional forces. That asymmetry is one of the directions the Western armies wish to use their advantages against potential enemies. Special force / elite units also need leaders that can think "outside of the box" to avoid using these units in a manner that would place them at great risk.

MISSIONS OF THE CANADIAN SPECIAL OPERATIONS CAPABILITY

Having established that there are no policy obstacles and that such a capability would indeed provide strategic utility, the specific missions of a Canadian special operations capability must be addressed in order to set the framework of evaluation of the three models to be studied. The preliminary work on the spectrum of missions for a Canadian special operations capability was completed in 2001-2002 by the Directorate Land Strategic Concepts (DLSC). The results of the working group created for the purpose of identifying the capability requirements have also identified gaps in the current Canadian capabilities. The roles, associated tasks and the range of operations for potential Canadian special operations forces can be found at Figure 3.

By comparing the special operations role to our current force structure, the working group was able to develop a matrix of capabilities and, by extension, of capability gaps. Included in the matrix were the roles accomplished by JTF 2 and what could be provided to fulfil the capability by conventional forces. In the interest of keeping this paper unclassified, I will not detail the gaps. It is sufficient to note that we are currently deficient in the support roles to SOF, e.g., psychological operations (PSYOP), human intelligence (HUMINT) and civil affairs (CA). These particular deficiencies are outside of the scope of this paper and will not be addressed further; however, they are not being ignored and are being considered as possible Reserve Force tasks.[50] As far as this paper is concerned, it will be sufficient to conclude that the current gaps in the special operations capability in Canada are at the middle levels in the range of operations of SOF. We can already conclude that Canada does not require a specialized SF unit since JTF 2 will assume these roles. Consequently, we can narrow this study to the non-specialized elite unit that would fulfil the intermediate range of special operations tasks.

THREE MODELS FOR CANADA'S OWN SPECIAL OPERATIONS CAPABILITY

After having established the utility of SF/elite units and their potential roles, I will now examine three models that could be used to provide the capability that is required by Canada. The first model is that of US Army Special Operations Forces (ARSOF). The second model is the Marine Expeditionary Unit (Special Operations Capable) (MEU SOC). The last model is the United Kingdom's 3 Commando Brigade. Each of these models will be assessed in terms of their utility for Canada.

…nothing prevents the Army from developing a Special Operations capability…

US Army Special Operations Forces (ARSOF)

Army Special Operations Forces is the US Army's contribution to US Special Operations Command (USSOCOM). It is by far the largest component of USSOCOM and comprises the following units: "U.S. Army Special Forces (SF), the 75th Ranger Regiment, the 160th Special Operations Aviation Regiment (Airborne) (SOAR), psychological operations (PSYOP) and civil affairs (CA) units."[51] As mentioned earlier, the last two functions are outside of the scope of this paper and so is the 160th SOAR; they will not be considered further for the model.

US Army Special Forces (SF). Descendants of the FSSF, the Green Berets, as they are more commonly known, are the specialist component of ARSOF. They have very specific roles in which they are specifically trained and structured to accomplish.

Special Forces are charged with training and assisting friendly resistance forces; training and assisting friendly counterinsurgent forces; conducting basic tactics and weapons training for friendly armies; carrying out pinpoint sabotage operations, rescue and recovery missions, and "snatch" raids; and conducting strategic reconnaissance operations attendant to general conflicts and interdictions.[52]

The focus of SF has evolved from their inception in the early 1950s. They were originally designed for guerrilla warfare behind Soviet lines, organizing an indigenous force to hinder any Soviet attempt to attack Western Europe. That role was transformed in the early 1960s during the conflict in Vietnam. From guerrillas themselves, SF became experts at counterinsurgency. President John F. Kennedy was an ardent proponent of SF and is considered to be a patron of the SF community. "What was needed here, the [Kennedy] administration insisted, was a vastly increased capability for counter-insurgency [*sic*] warfare, based on the proposition that the only way to fight guerrillas was to employ their tactics on their terrain."[53]

Post-Vietnam, the SF again went into decline. It was not until several operational incidents during the attempted rescue operation of American hostages in Iran in 1980 and during Operation URGENT FURY in Grenada in 1982 that led to the Nunn-Cohen amendment to the Goldwater-Nichols Act of 1986. In effect, the Nunn-Cohen amendment established USSOCOM and directed that the Army, the Navy and the Air Force contribute their own SOF to USSOCOM.[54] Since then, the SF community has gone from success to success in Panama, Operation DESERT SHIELD / DESERT STORM, Somalia, Haiti and more recently, Afghanistan.

US Army Rangers. While the Green Berets are the specialists of ARSOF, the Ranger regiment can be considered the non-specialist elite component of the force. By this, I mean that they are the jack-of-all-trades compared to the specialized SF. "Rangers provide a large-scale strike capability, as well as an additional rescue potential; both dimensions were demonstrated in Grenada. Rangers are organized and trained as elite light infantry battalions, in a modified organizational structure familiar to most soldiers."[55]

The Ranger Regiment is a direct descendant of the famous Ranger battalions of the Second World War. These units distinguished themselves throughout the European and Pacific theatre of operations whenever they were called on to take on dangerous, risky and often suicidal missions. Rangers today are parachute qualified and are organized to conduct raids on ports and airfields, which they have done three times in the last 20 years—Grenada, Panama and Afghanistan.

A Canadian Model Based on ARSOF. In order to emulate the ARSOF model, Canada would have to carry on with the doubling of the size of JTF 2 to ensure sufficient coverage of the high level range of operations.[56] In effect, JTF 2 would assume more fully the roles played by SF in ARSOF. This would allow our light infantry battalion to be transformed into multi-purpose strike units able to fulfil roles similar to the 75th Ranger Regiment. All three battalions would be organized similarly and equipped, manned and available for deployment on short notice. For the remainder of this paper, this model will be referred to as the ARSOF model.

SPECTRUM OF SPECIAL OPERATIONS		
Role	**Associated Tasks**	**Range of Operations**
Counterterrorism	⇨ Hostage Rescue ⇨ VIP Security ⇨ VIP Protection	**High Level**: High value target, high risk of collateral damage **Middle Level**: High value target, some risk of collateral damage **Low Level**: Low threat or permissive environment
Special Surveillance and Reconnaissance	⇨ Monitor ⇨ Target	**High Level**: Clandestine **Middle Level**: Covert **Low Level**: Overt
Direct Action	⇨ Raids ⇨ Non-combatant Evacuation Operations (NEO) ⇨ Combat Search and Rescue (CSAR) ⇨ WMD Disposal ⇨ Antiterrorism	**High Level**: High value target, high risk of collateral damage **Middle Level**: High value target, some risk of collateral damage **Low Level**: Low threat or permissive environment
Assistance to Foreign Military	⇨ Military Training Assistance Programme (MTAP) ⇨ Foreign Training Assistance ⇨ Foreign Military Assistance	**High Level**: Support to operations **Middle Level**: Support to collective training **Low Level**: Support to individual training

Figure 3: Spectrum of Special Operations[49]

USMC Marine Expeditionary Unit (Special Operations Capable) (MEU SOC)

The United States Marine Corps (USMC) has generally been considered an elite unit in and of itself. It meets the first and last part of the definition of elite units as proposed by Eliot Cohen:

> *First, a unit becomes elite when it is perpetually assigned special or unusual missions: in particular, missions that are—or seem to be—extremely hazardous… Secondly, elite units conduct missions which require only a few men who must meet high standards of training and physical toughness, particularly the latter. Thirdly, an elite unit becomes elite only when it achieves a reputation—justified or not—for bravura and success.*[57]

However tantalizing the idea transforming of the Canadian Army into a mini-USMC wannabe, it is not the aim of this paper. In short, the model that could be used by Canada to create a special operations capability would be based on one of the smaller components of the USMC, the Marine Expeditionary Unit (Special Operations Capable). This is a battalion-sized Marine Air-Ground Task Force (MAGTF), which is deployed on Amphibious Ready Groups (ARG). The ARG can be deployed worldwide to whatever flashpoint is currently in the spotlight.

The Marine Expeditionary Unit (Special Operations Capable), or MEU (SOC), is a task organized, forward-deployed MAGTF. It is not a special operations force by general definition, nor does the Marine Corps provide forces with the primary mission of the conduction of special operations. Rather, the MEU (SOC) is a MAGTF, which by enhanced training and additional equipment achieves the capability to accomplish selective maritime special operations.[58]

The USMC has been deploying battalion-sized units on amphibious ships for a long time. The passage of the Nunn-Cohen amendment to the Goldwater-Nichols Act led the Marines, however, to examine more closely how they could increase the Corps' participation in special operations. In 1987, the concept of the MEU (SOC) was put into effect.[59]

MEU SOC MISSIONS AND CAPABILITIES	
1)	Amphibious Raid (Boat, Helicopter and Mechanized).
2)	Non-combatant Evacuation Operation (NEO) (Single and Multi-Site).
3)	Security Operations (Area and Physical Security to Embassy or Consulate-type Facility).
4)	Tactical Recovery of Aircraft and Personnel (TRAP).
5)	Direct Action Mission (Destruction or Recovery Operations).
6)	Humanitarian Assistance / Disaster Relief.
7)	Rapid Response Planning Process (R2P2).
8)	Intelligence, Surveillance and Reconnaissance (ISR).
	a) Reconnaissance and Surveillance
	b) Counterintelligence
	c) Signal Intelligence
9)	Long Range Raid (Requiring Forward Arming and Refuelling Point [FARP] Operations).
10)	Mass Casualty (Evaluation of PHIBRON (Amphibious Squadron) / MEU Medical Capabilities).
11)	Airfield/Port Seizure Operations.
12)	Maritime Special Operations (either as an independent Maritime Special Purpose Force (MSPF) mission, or together with the PHIBRON NavSpecWar Det).
	a) Gas and Oil Platform (GOPLAT).
	b) Visit, Board, Search and Seizure (VBSS).
13)	Additional missions and capabilities as required by the MEF commander or operational commander who is to employ the MEU (SOC).

Figure 4: MEU SOC Missions and Capabilities[60]

Since then, two to three MEU (SOC)s are deployed on ARGs around the world. Their latest deployment was the opening phase of Operation ENDURING FREEDOM, where two MEU (SOC)s were grouped to form Task Force 58, with the mission of deploying to Afghanistan and initiating the destruction of the Taliban and al-Qaeda network in that country.

Before deploying, every MEU (SOC) must complete a rigorous training regimen that prepares it for any mission, including the tasks in Figure 4. Some tasks are in bold font to highlight their particular special operations flavour.

A Canadian Model Based on the MEU (SOC). As per the ARSOF model, in this model the roles in the high level range of operations would be accomplished by an expanded JTF 2. The three light infantry battalions would adopt a cyclical training regimen, where one unit would prepare for deployment, one unit would be on stand-by or deployed in a theatre of operations, while the third unit would be "reconstituting." In this fashion, Canada would have a complementary special

operations capability to what is currently available with JTF 2 only. For the remainder of the paper, this will be referred to as the USMC model.

3 Commando Brigade, Royal Marines

"3 Commando Brigade Royal Marines is the Royal Navy's amphibious infantry on permanent readiness to deploy across the globe, and is a core component of the United Kingdom's Joint Rapid Reaction Force."[61] It comprises three light infantry battalion-sized units (commandos) and is reinforced by several combat support units such as the 29 Commando Regiment Royal Artillery, the 59 Independent Commando Squadron Royal Engineers and helicopters from the Commando Helicopter Force. 3 Commando Brigade is a fighting formation in and of itself, which differentiates it from the ARSOF or the MEU (SOC), which normally fight as a unit at battalion-size or smaller. The US Marine Corps's Marine Expeditionary Brigade (MEB) would have capabilities similar to 3 Commando Brigade. For the US Army, one would have to look at the 82nd Airborne Division, the 101st Air Assault Division or some other light infantry division to find a deployable fighting formation akin to 3 Commando Brigade (e.g., a brigade combat team).

A Canadian Model Based on 3 Commando Brigade Royal Marines. What this model adds to our discussion is the contribution of brigade level combat support and command elements. These elements would consist of artillery, engineer support and possibly reconnaissance such as a squadron of Coyote (LAV) surveillance vehicles. This model also implies that the three light infantry battalions would belong to a brigade and that this would be a fighting formation as opposed to an administrative and command element only. As far as the three light infantry battalions inside the brigade, they could follow either the ARSOF or USMC model to ensure that the infantry portion of the capability is deployable. For the remainder of the paper, this model will be referred to as the 3 Commando Brigade model.

FRAMEWORK FOR EVALUATION OF UTILITY

In order to assess the utility of each model, a framework of evaluation is required. Each model will then be evaluated against the framework to determine the level of military utility it provides.

The factors included in the framework will be the following:

- Relevance to tasks—using the potential tasks and comparing them with the proposed model.
- Effectiveness—the level of capability provide by the model compared to the tasks.
- Flexibility—the availability of the capability according to the model.
- Affordability—the cost of personnel, equipment acquisition and training.
- Sustainability—the possibility of maintaining the capability in personnel strength, funding and materiel.
- Risk—the likelihood of employing the capability according to the model. The political risk will also be assessed.

The specific missions of a Canadian special operations capability must to be addressed.

ASSESSMENT OF THE THREE MODELS TO THE FRAMEWORK

ARSOF Model

Relevance to Tasks. The creation of three light infantry battalions, manned, structured and equipped like a Ranger battalion, would provide a very high level of relevance to the probable tasks. Having the redundancy of the three battalions would also allow each battalion to focus on certain areas of operations of the world—one for the Middle East and Africa, one for Europe and Asia and the last one for the Americas, for example. Another option would be to have each battalion assume different functions, like mountain warfare, desert warfare, airborne operations, amphibious operations or urban operations.

Effectiveness. The ARSOF model provides a very effective model to ensure that the Canadian special operations capability is credible. The redundancy provided by three units also increases the depth of the capability.

Flexibility. The ARSOF model provides maximum flexibility through the redundancy of having three units manned, equipped and structured in a similar fashion. The possibility of giving the units a different focus or different functions would also provide a special operations capability that could be easily task-organized according to the mission.

Affordability. The ARSOF model is an expensive solution. It requires considerable up front investments for specialized equipment and a heavier structure, which implies more support from the conventional units for personnel. It also means that all three units would start training almost simultaneously to attain their initial operating capability (IOC), which adds to start-up expenses. A final consideration is the relative lack of helicopter support currently available in the CF to sustain three battalions of this type.

Sustainability. The ARSOF model would also be expensive to sustain for the long term. The training costs to maintain the three battalions at almost peak effectiveness in order to ensure they are ready once their capabilities are required would require a sizeable operations and maintenance (O&M) budget. The personnel required to man the three battalions would also be quite a strain on the remainder of the six mechanized infantry battalions. These battalions would be called on to provide the officers and non-commissioned officers required to keep the light infantry manned at 100% all the time. As far as materiel is concerned, the funds required to sustain unit equipment would similarly increase the strain on scarce funding—the National Procurement (NP) Program.

Major J.H.G. Lizotte, CD

Risk. There are two types of risk associated with the ARSOF model. First, there is the operational risk. The Army is currently responsible to provide the government with two deployable battalion-sized battle groups. One of these battle groups is a mechanized battle group, while the other is a light infantry battle group.[62] The brigade-sized task, with three battle groups for the Main Contingency Force (MCF), calls for heavier forces than light infantry units and is intended for major conflicts. The likelihood of deploying two light infantry units is therefore low in the current operational system.

The second risk is related to the political acceptability of having such a large number of elite units. The government, which was embarrassed into disbanding the Airborne Regiment following the Somalia debacle, may resist the creation of three new battalions of elite troops.

USMC Model

Relevance to Tasks. In the USMC model, the creation of a rotation-based single battalion employing the current three light infantry battalions would create a capability relevant to the tasks required by the Canadian Army. The rotation system would allow a single battalion-sized unit to be permanently available for any deployment, while the other battalions are preparing and reconstituting respectively. The battalion waiting for deployment would be fully manned and equipped. The battalion in preparation would also have to be fully manned but equipped with only a sufficient suite of equipment to allow the training to be conducted. The battalion in reconstitution would have less than full manning and only enough equipment to allow individual and continuation training.

Effectiveness. The USMC model would provide an effective capability to ensure that the special operations requirements are met. There would, however, be no redundancy, and each of the three battalions would be of a general-purpose Ranger battalion type.

Flexibility. For the same reason as the preceding criterion, the USMC model would be a less flexible capability. However, the "ready" battalion would fulfil the special operations requirement.

Affordability. The USMC model is a less expensive solution. The start-up costs in equipment are less important than the ARSOF model. A possible requirement for two suites of equipment would allow all three battalions to have sufficient equipment for the rotation basis of the model. The rotation model also allows a more manageable personnel situation where all the battalions are not fully manned at all times. This would decrease the conflicts with conventional unit manning.

Sustainability. The USMC model is a more affordable solution than the ARSOF model. The rotation basis of the USMC model conforms to the Army Training and Operations Framework (ATOF), where the Army is going to a managed readiness system also based on a rotation of units through the framework.[63] The O&M budget to maintain the capability would be more reasonable in the current situation, and the same fact would help the NP issues of materiel.

Risk. The USMC model is a less risky option than the ARSOF model. It provides a capability commensurate with the potential tasks of one light infantry battle group with the additional special operations capability. It is also a more reasonable capability that would be easier to create in the current domestic political climate. The creation of a SOF capability would offset the lingering resentment regarding the disbandment of the Airborne Regiment as well.

3 Commando Brigade Model

Relevance to Tasks. 3 Commando Brigade model is the least relevant to the potential tasks of the special operations capability. The formation a deployable brigade-sized unit with light infantry units capable of special operations is currently not resident in any of the Army tasks.[64]

Effectiveness. The 3 Commando Brigade model does not add to the effectiveness of the special operations capability itself. It does make the brigade a better combat unit in and of itself; however, that is not the requirement.

Flexibility. The 3 Commando Brigade model does, however, provide the most flexibility of all the models. By creating a formation based on a deployable grouping of special operations capable battalions, this brigade would be a potent force that Canada could deploy if the world situation gets even worse that it presently is.

Affordability. The affordability of this model is dependent upon which model is used for the three light infantry battalions inside the brigade. Most of the equipment, personnel and funding used by the brigade and its other combat support is already present and budgeted in current Army funding envelopes. A 3 Commando Brigade model brigade with light infantry battalions organized according to the USMC model would provide a very credible capability with the potential to deploy a fighting formation while keeping the financial strain to a minimum.

Three light infantry battalions can provide the Canadian Army with a credible capability…

Sustainability. As with the preceding affordability criterion, the sustainability of the 3 Commando Brigade model is dependent on the model used for its component light infantry. The major difference would be the increased difficulty of sustaining the deployed formation, which would have a much heavier footprint with its artillery, engineer and possible reconnaissance assets. Apart from this case, the funding issues related to operations and maintenance, training and non-public funds would be very similar to our current costs for the brigade-level elements.

Risk. The risk associated with the 3 Commando Brigade model is also dependent on the model used for the battalions subordinate to the brigade. On the financial side, the risk is definitely much higher as there are currently no

In 1991, the world changed again and calls for special forces rose as it did in 1946, 1947, 1964, 1966 and 1968. So, what exactly do we want these soldiers to do and how should they be structured to do their job? (Courtesy MCpl Brian Walsh Canadian Forces Combat Camera)

Army tasks for such a deployable light brigade. The political risk is also higher due to the same conclusion as in the ARSOF model. Recreating a brigade-sized unit, similar to the old Special Service Force—(the defunct parent brigade of the defunct Airborne Regiment) would certainly pose many more concerns than the capabilities the brigade would provide.

CONCLUSIONS AND RECOMMENDATIONS

The arguments presented in this paper allow the author to conclude that the Canadian Army is fully justified in its effort to produce a special operations capability. The face of war in the 21st century requires more agile, more deployable and more lethal forces. Special operations forces are an intrinsic part of conflicts for the foreseeable future, especially with respect to the ongoing global war on terrorism. By the sheer multitude of capabilities provided by SOF units throughout the spectrum of operations, there is little doubt of their utility on the asymmetric battlespace of the near future. The convergence of favourable political conditions, combined with a better strategic vision inside the military establishment, clearly indicate that the creation of a special operations capability would be a significant addition to Canadian military capabilities.

Early in this paper, it was established that, with the current and future levels of specialized SF that the JTF 2 provides, the Canadian Army requires an intermediate capability between its conventional forces and the highly specialized JTF 2. The best way to realize this capability will be to adopt the MEU (SOC) model. This model builds upon the Marine Corps' experience with the MEU (SOC) to create a rotation-based light infantry force with special operations abilities. This force of three light infantry battalion can provide the Canadian Army with a credible capability. The battalions are already in existence; all that is required is a doctrine of employment, a more modest suite of specialized equipment and a training program. The USMC model also conforms to the soon-to-be-implemented ATOF and would be the easiest to incorporate in that framework. In contrast, the ARSOF and 3 Commando Brigade models are not recommended because they are unaffordable, difficult to sustain with the current personnel and financial situation, and they provide a level a capability that exceeds the tasks currently given to the Army in all strategic-level planning documents. Should the future bring a change to these tasks, then either the ARSOF model or the 3 Commando Brigade model could be dusted off and implemented.

Adopting the USMC model is the right choice for the Canadian Army as it will mesh well with the managed readiness system being put in place for the rest of the force. It also meets the vision of the Chief of the Land Staff in that the battalions in the USMC model are interchangeable, which respects the depth vs. breadth of capability intentions. This means that having three multi-purpose battalions would be more affordable and sustainable than three battalions with different capabilities. It is therefore recommended that the USMC model be introduced in the Canadian Army to satisfy the requirements of a special operations capability for the 21st century.

ABOUT THE AUTHOR

Major Guy Lizotte is an infantry officer with the Royal 22e Régiment. He has completed several overseas tours with the 1st and 2nd Battalion and also served with CFB Montreal, the Headquarters of District no 3 of Secteur de l'Est, Regimental Adjutant for the Royal 22e Régiment and with the Directorate of Land Requirements in Ottawa. Major Lizotte recently completed a Master of Military Studies while attending the US Marine Corps Command and Staff College. He is currently attending the US Marine Corps' School of Advanced Warfighting in Quantico Virginia.

Major J.H.G. Lizotte, CD

ENDNOTES

1. Government of Canada, *Advancing with Purpose: The Army Strategy* (Ottawa: Department of National Defence, 2002). URL: http://www.army.forces.ca/strategy/English/interimspecific.asp. Accessed 10 November 2002.

2. Department of Defense, Joint Pub 3-05, *Doctrine for Joint Special Operations* (Washington D.C.: Joint Staff, 17 April 1998), GL-10.

3. Martin O'Malley, "In the Terrorism Crunch, Canada has JTF 2," *CBC News Online*, Updated: December 06 2001, http://www.cbc.ca/news/indepth/background/wtc_jtf2.html. Accessed 6 January 2003.

4. Bernd Horn and Michel Wyczynski, *In Search of Pegasus: The Canadian Airborne Experience 1942-1999* (St. Catharines: Vanwell Publishing Limited, 2001), p. 20.

5. Horn and Wyczynski, p. 30.

6. Todd Strickland, "The 1st Canadian Parachute Battalion: A Brief History," *The Army Doctrine and Training Bulletin* 3, 1 (Spring 2000), p. 37.

7. Horn and Wyczynski, p. 23.

8. "First Special Service Force," *The Army Historical Foundation*. URL: http://www.armyhistoryfnd.org/armyhist/research/detail2.cfm?webpage_id=392&page_type_id=3. Accessed 6 Jan 2003.

9. Ibid.

10. Veterans Affairs, Canada, *Italian Campaign: The First Special Service Force, 1999*. URL: http://www.vac-acc.gc.ca/general/sub.cfm?source=feature/italy99/backgrounders/special. Accessed 10 Sept 2002.

11. Horn and Wyczynski, p. 69.

12. Ibid., p. 71.

13. Ibid.

14. Ibid., p. 72.

15. Ibid., p. 74.

16. "History," Airborne Regiment Association of Canada. URL: http://www.airborneassociation.com/history.htm. Accessed 7 January 2003.

17. Horn and Wyczynski, pp. 103-107.

18. Ibid., p. 107.

19. Government of Canada, DND/CF Operations, Operation SCULPTURE. URL: http://www.forces.gc.ca/site/operations/sculpture/index_e.asp. Accessed 26 March 2003.

20. Government of Canada, *1994 White Paper on Defence* (Ottawa: Canada Communications Group, 1994). URL: http://www.forces.gc.ca/site/minister/eng/94wpaper/one.html. Accessed 10 January 2003.

21. Ibid., Chapter 6.

22. Ibid., Chapter 1.

23. Ibid., Chapter 3.

24. Ibid.

25. Government of Canada, *Canada in the World* (Ottawa: Dept. of Foreign Affairs and International Trade, 1995). URL: http://dfait-maeci.gc.ca/foreign_policy/cnd-world/chap4-en.asp. Accessed 10 January 2003.

26. Government of Canada, *Shaping the Future of the Canadian Forces: A Strategy for 2020* (Ottawa: Department of National Defence, 1999), p. 6.

27. Ibid., p. 9.

28. Colin S. Gray, "Handfuls of Heroes on Desperate Ventures: When do Special Operations Succeed?" *Parameters*, Spring 1999, p. 6.

29. Ibid., p. 3.

30. Ibid., p. 3.

31. Ibid., p. 4.

32. Scott White, "Canadian soldiers in Afghanistan voted top story," in *CNEWS*, 1 January 2003. URL: http://cnews.canoe.ca/CNEWS/WarOnTerrorism/2003/01/01/8828-cp.html. Accessed 10 January 2003.

33. Gray, p. 6.

34. Government of Canada, *Advancing with Purpose: The Army Strategy*.

35. Gray, p. 8.

36. K.R. Pennie, "Strategic Thinking in Defence," *Canadian Military Journal* 2, 3 (Autumn 2001), p. 22.

37. Gray, p. 9.

38. Eliot A. Cohen, "Commandos and Politicians: Elite Military Units in Modern Democracies," *Harvard Studies in International Affairs* Number 40 (1978), p. 100.

39. Gray, p. 10.

40. Ibid., p. 11.

41. Carl Von Clausewitz, *On War* (New York: Alfred A. Knopf, 1993), p. 720.

42. Gray, p. 12.

43. Ibid.

44. Colin S. Gray, "Handfuls of Heroes on Desperate Ventures: When do Special Operations succeed?" *Parameters*, Spring 1999, p. 12.

45. Ibid., p. 15.

46. Darren Yourk, "NDP Demands McCallum Clarify Iraq Comments," *Globe and Mail*, 10 January 2003. URL: http://www.globeandmail.com/servlet/ArticleNews/front/RTGAM/20030110/wmcal0110_2/Front/homeBN/breakingnews. Accessed 11 January 2003.

47. Jean Chrétien, "Where Canada Stands, March 17, 2003," *CBC News*, 17 March 2003. URL: http://www.cbc.ca/news/iraq/documents/chretien_statement030317.html. Accessed 25 March 2003.

48. Gray, p. 15.

49. Government of Canada, Directorate—Land Strategic Concepts, PowerPoint presentation, Special Operations Capability Working Group Phase 1 Results, Feb 2002.

50. Government of Canada, *Rethinking the Total Force: Aligning the Defence Team for the 21st Century*, VCDS Force Structure Guidance, Feb 2000. URL: http://www.vcds.dnd.ca/vcdsorg/interest/rethink/part3_e.asp. Accessed 11 January 2003.

51. Department of Defense, US SOCOM Pub 1, *Special Operations in Peace and War*, 25 January 1996, p. iv.

52. Ross S. Kelly, *Special Operations and National Purpose* (Lexington: Lexington Books, 1989), p. 11.

53. John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy* (Oxford: Oxford University Press, 1982), p. 217.

54. USSOCOM Pub 1, p. 2-19.

55. Kelly, p. 11.

56. Fact Files: Defence, in *Globe and Mail*, 11 January 2002. URL: http://www.globeandmail.com/special/budget/canada/2001/fact-files/defence.html. Accessed 11 January 2003.

57. Cohen, p. 17.

58. H.T. Hayden and D.R. Blankenship, "Marine Expeditionary Unit (Special Operations Capable) (MEU (SOC))," in *Shadow War: Special Operations and Low Intensity Conflict*, H.T. Hayden ed. (Vista: Pacific Aero Press, 1992), p. 31.

59. Department of Defense, U.S. Marine Corps, MAGTF Warfighting Center Concept Publication 8-1, *Operational Concept for the Marine Expeditionary Unit (Special Operations Capable)* (Quantico: Marine Corps Combat Development Command), p. 1-1, p. 1-2.

60. Department of Defense, US Marine Corps, MARINE CORPS ORDER 3502.3A (Washington, D.C.: HQMC, 10 Jan 01), p. 9-11.

61. Ministry of Defence, Royal Navy Web site, "What is 3 Commando Brigade." URL: http://www.royal-navy.mod.uk/static/pages/1905.html. Accessed 11 January 2003.

62. Government of Canada, *Defence Plan 2001* (Ottawa: Vice-Chief of the Defence Staff, 19 April 2001), p. 3-9.

63. Government of Canada, *Advancing with Purpose: The Army Strategy*, pp. 22-23.

64. Government of Canada, *Defence Plan 2001*, p. 3-8.

As Old as Warfare Itself

An Examination of Asymmetric Warfare

by Major R.H.J. Ruiters, CD

War is a difficult business. As Victor Davis Hansen discusses in *Carnage and Culture*, war is the ultimate and final arbiter of politics.[1] This is a uniquely Western idea that goes back to Aristotle's Politics and is amplified or discussed by such diverse thinkers as Machiavelli, Hobbes and Clausewitz. War is Darwinian competition, and winning is crucial to the survival of the combatant, whether an individual or a state. We attempt to understand war primarily so that we are better at it than our potential opponents. If we subscribe to von Clausewitz' dictum that war is the extension of politics or policy by other means, then it follows that political and national survival depend on successful war fighting.

Doctrine is the formal expression of the military knowledge and thought that an army accepts as being relevant at a given time. It covers the nature of conflict, the preparation of the army for conflict and the method of engaging in conflict to achieve success.[2] Therefore, we attempt to scan the earlier development of thoughts on war, especially with respect to its influence on modern doctrine, to understand war and to achieve that success.

There is considerable discussion over what constitutes asymmetric warfare and its impact on Western military doctrine.

Throughout military history a number of men have written judgements and precepts that have influenced the thinking of soldiers in their own and subsequent generations. However, the scope of those judgements has been, on the whole, fairly static and limited, particularly in the light of today. Those that have survived to this date have done so because they are felt to be universal and continue to prepare us for conflict to achieve success. As Bernard Brodie succinctly stated, only a few "war thinkers" gave us "...ideas which are old only because they deserved a long life."[3]

One of the great questions that occupied students of warfare is whether there is any single, unifying theory of warfare. Is it a valid assumption that, while the circumstances of war might alter, the underlying principles are eternal and unvarying?[4] Why is it important to reach back two hundred years to a philosopher who to many remains obscure? His field of study was war, a subject that has ebbed and flowed in popular interest. The subject of war has been met with a mix of horror and a tinge of fascination. Since the terrorist attacks on the United States on 11 September 2001, interest in the "road to war" is high in the West and amongst our allies, particularly now in the 'war on terrorism' and on the eve of a predicted invasion of Iraq. Virtually every major international media event seems to be connected to imminent war and, right now, terrorism. Terrorism, which appeared to peak in the 1980s, has seemingly returned in a more virulent strain. There appears to be a collective sentiment at the beginning of the third millennium that the stability of the West, and its allies in newly emergent and vulnerable democracies, is threatened.

The latest catchphrase in our modern military lexicon, one that is generating great debate, is the term "asymmetric warfare." This term has been used (and abused) liberally, particularly since the stunning attack on the United States on 11 September 2001. While it is a relatively new term, the concept is as old as war itself. There is considerable discussion over what constitutes asymmetric warfare and its impact on Western military doctrine. Asymmetric warfare appears to threaten to unhinge precepts of Western society as well as that of its emerging Central and Middle Eastern allies. While not new, the asymmetric threat has crossed a threshold of what means it will employ, while modern technology and ease of communication has made it possible to threaten governments. So why study history—and obscure philosophers—against the backdrop of asymmetric warfare? It is simply because we seek ideas to apply to the perilous world in which we live today.

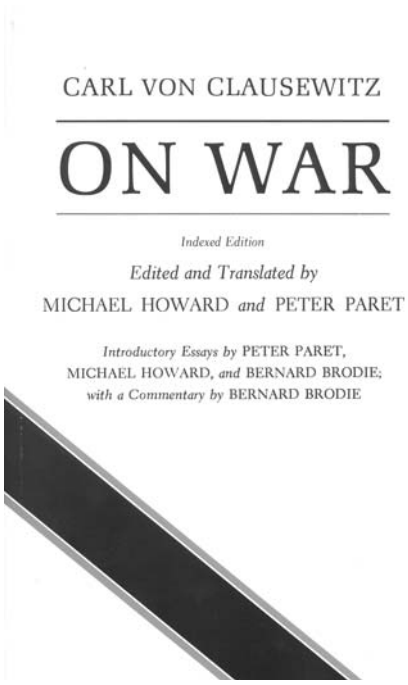
Major R.H.J. Ruiters, CD

ASYMMETRIC WARFARE

"I have always dreamed," he mouthed, fiercely, "of a band of men absolute in their resolve to discard all scruples in the choice of means, strong enough to give themselves frankly the name of destroyers, and free from the taint of resigned pessimism which rots the world. No pity for anything on earth, including themselves, and death enlisted for good and all in the service of humanity..."

—Joseph Conrad [5]

"Asymmetric warfare" is a term in our modern military lexicon that has recently enjoyed a lot of play in military and political discourse. It and the related term "asymmetric threat" describe attempts to circumvent or undermine an opponent's strengths while exploiting his weakness using methods that differ significantly from that opponent's usual mode of operations. Asymmetric is derived from the word *symmetry*, which refers to proportion between the parts of any whole giving balance and congruity among those parts. It also refers to similarity of parts on opposite sides of a plane. That which is asymmetrical lacks that symmetry between the opposing parts.[6] Asymmetry in war recognizes the difference between the opposing parts or sides in their tactics, techniques and weapons. The asymmetric threat is one that exploits that difference. Put in military perspective, it is " ... a threat by an opposing faction to attack (a nation) by avoiding strengths, exploiting weaknesses, and employing unexpected or unusual techniques."[7] Asymmetric warfare is a form of war (or fighting) that employs asymmetric means. Asymmetric threats or techniques describe weapons and tactics that opponents could and do use to foil or circumvent the technological superiority of Western nations. These techniques can include the use of surprise combined with weapons or tactics in ways that are unplanned or unexpected. However, the term has become a catchy literary sound bite, which, while resonating well in our collective intellect, is misleading and misses the point. It is often confused with manoeuvre warfare or is falsely synonymous with the term "unconventional warfare."



Is there any single unifying theory of warfare? Does the Army *even care* about the theory of warfare?

Manoeuvre is the employment of forces through movement in combination with speed, firepower and fire potential to achieve a position of advantage in respect to the enemy in order to achieve the mission.[8] Manoeuvre warfare applies strength against vulnerability between symmetric opponents. Victory results from the better use of tactics, terrain, time and space between these symmetric opponents. By comparison, an asymmetric opponent or threat is one that the opposite side cannot fight with conventional doctrine and tactics, at least at a point in time, because that threat is not understood in conventional terms. As one American writer put it, the asymmetric threat does not "fight fair."[9] The asymmetric threat or foe will not engage in manoeuvre because he will not "appear" on the battlefield—at least not in a form recognizable by his opponent.

HISTORIC EXAMPLES

One of the earliest historic examples of the asymmetric threat are the Nizari, later known as the Assassins, whose use of political murder as a core policy was a creative and bloody use of asymmetric warfare against their much more powerful Sunni and non-Isma'ili Shi'ite opponents, who they thought of as dangerous heretics. The Nizari operated in the Middle East from the end of the 11th century until their annihilation by the Mongols in the 13th century. Nizari leaders such as the so called Old Man of the Mountain advanced the use of terror and, despite being vastly outnumbered, their large reach—encompassing even attacks on Saladin, arguably the greatest commander of the entire Middle Ages—would inspire such fear that they had power far beyond their numbers. It can be argued that their apocalyptic vision and tactics find their direct heirs in the religious terrorists of today.

The combination of attacks on 11 September 2001 by Bin

On a sliding scale of asymmetric warfare, religious terrorism approaches the purest form in terms of difficulty to intercept.

Laden's followers—"shuhada," which means "martyrs in the name of Allah"—was an act of religious terrorism. On a sliding scale of asymmetric warfare, religious terrorism approaches the purest form in terms of difficulty to intercept. As opposed to secular terrorist organizations such as Abu Nidal, which are structured and have a templatable doctrine, religious terrorist groups require relatively little direction among their foot soldiers. Their common view (usually apocalyptic) of the deserved fate of their loosely defined enemy gives them a simple mission and a mode of operation (for example, to kill all blasphemers) that requires little to no command and control infrastructure.[10]

History is filled with startling examples of asymmetric warfare and those who employed asymmetric means successfully. Likewise, there are many historic examples of warfare that is confused with asymmetric warfare. A few examples of what is, arguably, not asymmetric warfare illustrate this point while aiding in making the point about what asymmetric warfare is.

In *The Soul of Battle*, Victor Hansen relates three incredible stories of armies that marched deep into their enemy's territory capturing large numbers of their demoralized foe. Sherman's "march to the sea," in which he evaded decisive engagement with Confederate forces while striking behind their lines at the undefended cultural, psychological and moral centre of the Confederacy, was a replay of Epaminonda's march into the heart of what was, up to that point, Sparta's unchallenged domain much earlier in history. In both cases, these brilliant and innovative commanders understood Clausewitz' dictum that victory follows the enemy's psychological defeat. While each understood the value of the "moral imperative" in warfare—to defeat the enemy's morale (and that of those he would fight to protect)[11]—theirs' were spectacular examples of manoeuvre warfare, rather than asymmetric warfare, in which audacity and surprise were combined with linear warfare to apply strength against vulnerability between symmetric opponents.

Similarly, Varus' defeat at the hands of Hermann's forces in A.D 9 was a result of superior tactics, excellent use of terrain and good intelligence—manoeuvre warfare. The opposing forces were symmetric in terms of tactics and weapons. Hermann, leader of the Cerusci, a Germanic tribe, had served as a Roman auxiliary. He and his lieutenants understood Roman warfare. Similarly, for their part, the Romans had campaigned against various German tribes (or had fought as allies with them) for the previous sixty years since Julius Caesar had crossed the Elbe. Varus lost the battle before it began by a calamitous combination of stupidity, corruption and arrogance. Hermann used good intelligence and information operations to capitalize on these unfortuitous (for Varus' men) character traits in the Roman commander to ensure Varus' defeat. Varus conducted an administrative move into hostile terrain, neglecting to adopt the standard Roman march discipline of vanguards, outriders, separation of combatants from non-combatants and nightly fortifications. To underline this point, Germanicus, though arguably the best Roman general since Julius Caesar, nevertheless successfully made the same march under the same conditions ten years later by adhering to standard Roman march discipline and training.[12]

On the other hand, in an illustration of asymmetric warfare, the US, while winning on the battlefield, lost strategically in Viet Nam to an enemy who employed guerrilla warfare against both numerically and technologically superior French and US forces in two successive wars. Like the Afghan guerrillas against the Soviet forces, they avoided decisive engagement on the battlefield and counter-balanced any opportunities for their technologically superior enemy to employ his attack weapons. What must be stressed is that the Viet Cong and the Afghans did not avoid fighting and, indeed, carried the fight to their enemy, but they did so employing asymmetric tactics. They were also successfully innovative and quick to take advantage of those very Clausewitzian themes—uncertainty and the friction of war.

Similarly, the Chechen fighters in that Russian republic have employed asymmetric techniques in two wars in just over a decade. Like the Afghan guerrillas, they avoided decisive engagement against numerically and technologically superior Soviet/Russian forces, while striking at garrisons, convoys and soft targets using hit and run techniques, turning their capital, Grozny, into a battleground and striking into Russian opera houses

There is a danger in fixating on asymmetric warfare.

Major R.H.J. Ruiters, CD

Threats and armies are changing. Despite the appearance of a regular US Army soldier this individual shown in Kuwait is in reality contracted from a civilian firm. (Courtesy Cornell University Press)

in the heart of Moscow. These are not terrorist techniques per se as they are equally identified with guerrilla warfare, but both are asymmetric warfare.

THE ASYMMETRIC THREAT

The asymmetric threat is a matter of Janus-like perception. By definition, *fighting* is a physical struggle or battle.[13] *War* is defined as open armed conflict between countries or factions.[14] While the terms *war* and *fighting* are used interchangeably, there is general agreement with Clausewitz' assertion that war is a duel (or fighting) on a larger scale and that countless duels go to make up a war.[15] Therefore, war is a collective effort. It is a fight between sides, whether countries, tribes, etc. Within each side there must be a degree of cohesion in its fighting techniques. In other words, there must be symmetry in methods or techniques among its component parts. Every combatant force is symmetric in the sense that it is organized, retains a structure and has a doctrine, however rudimentary or simple. An opponent or threat is asymmetric when its methods are unusual and unexpected, though it has symmetry among its own parts. A threat is asymmetric so long as asymmetry, at least in perception, exists. Asymmetry can be manifested in the ends to be achieved or the ways and means of achieving them.

Asymmetric attacks can have a strategic impact, especially on the psychological plane, and may include exploitation of the fears and beliefs of the civilian population to weaken support for the government and its national security forces, or, in alliances and coalitions, to a compromise of the cohesion of the partners. The asymmetric threat understands and employs surprise, psychological warfare, uncertainty and the friction of war. Today, the asymmetric threat can take many forms—including terrorism, guerrilla warfare, psychological operations, kidnapping, assassination, cyber attack and use of weapons of mass destruction—in an attempt to inflict massive human and economic losses disproportionate to the numbers of those who fight asymmetrically. The asymmetric threat can, and has, combined these methods to combat a numerical or technologically superior force or nation.

However, the problem with efforts to define an asymmetric threat is that they imply strongly that the universe of threats divides neatly into the symmetric and the asymmetric. In his article "Thinking Asymmetrically in Times of Terror," Colin Gray listed eight characteristics of, and corollaries to, threats deemed asymmetric.[16] While simplifying discussion of asymmetric warfare, these do not clarify it. Asymmetric warfare, like other forms of warfare, lies on a sliding scale in its degree of asymmetry. There is no hard dividing line between symmetric and asymmetric warfare nor, indeed, in the forms of asymmetric threats themselves. It comes back to perception. One culture's asymmetric threat is another's normal form of warfare.

Both in military as well as civilian circles, asymmetric warfare is currently being equated to terrorism. "Terrorism" employs asymmetric techniques and wages asymmetric warfare. A misused term, terrorism is not some kind of international cartel or organization, but simply a form of warfare employing asymmetric means. To quote Gwyn Dyer, "…declaring war on terrorism is like declaring war on carpentry."[17] Those that use terrorist tactics fight asymmetrically, i.e., the terrorist is an asymmetric threat. As Bin Laden has surely grasped, terrorism is by definition asymmetric warfare.

The revolution in communications technology, ease of travel, erosion of borders and the proliferation of weapons and their delivery systems are having a major impact on the conduct of warfare at every level, from global conflict to terrorism. In his *Hubris and*

Nemesis: Kosovo and the Pattern of Western Ascendancy and Defeat, Anatol Lieven warns against seeing Kosovo (or the Gulf War) as the paradigm of war in the next half-century. He believes that the very success of Operation ALLIED FORCE, the NATO air attack on Serbia, will persuade future adversaries to confront the West indirectly in ways that will cancel out the West's technological advantage. For Lieven, who covered the wars in Chechnya and Afghanistan, "victory through technology" is an illusion; the astute enemies will fight asymmetrically.[18]

However, there is a danger in fixating on asymmetric warfare since, as the Gulf War reminded us, there will continue to be symmetric threats requiring our ability to launch a conventional deterrent. So while terrorism and other forms of asymmetric warfare have strikingly captivated the collective consciousness, impelling us to new doctrine and threat force modelling to meet it, we must not lose our perspective. There is a distinct danger that we become fixated anew on one form of warfare to the neglect of others. That would be repeating old mistakes. The remodelling or templating of new potential threats, and a subsequent restructuring to lighter forces, in the face of the asymmetric threat now and tomorrow can actually weaken our ability to fight on traditional battlefields. It is difficult to rapidly upgrade forces designed for the low end of the conflict spectrum to handle the larger wars—and it is usually the larger wars that have the larger stakes.

ABOUT THE AUTHOR...

Major Ruiters is a serving Intelligence Officer and former Infantry Officer with 12 years in the PPCLI. Currently Acting DAD 5, he is responsible for Land Staff intelligence and information operations doctrine development. He is currently in his last year in the War Studies Masters programme (part-time) at RMC. This article is taken from a paper submitted as part of his studies entitled "Clausewitz and Asymmetric Warfare". Major Ruiters returned last summer from a four-year tour in Turkey where he studied asymmetric threats 'up close'. He is currently working on his thesis entitled *Between Pasha and Ummah* on the Turkish Armed Forces and Turkey's geopolitical potential. He reports that the "Great Game" on the Russo-Turkish border continues.

ENDNOTES

1. Victor Davis Hansen, *War and Carnage* (New York: Doubleday, 2001), p. 213.

2. B-GL 300-001/FP-000 *Conduct of Land Operations—Operational Level Doctrine for the Canadian Army*.

3. Bernard Brodie, *Strategy in the Missile Age* (Princeton: The Rand Corporation, 1971), p. 20.

4. Shelford Bidwell, *Modern Warfare* (London: Allen Lane, 1973), p. 193.

5. Joseph Conrad, "The Secret Agent," quoted in Peter L. Bergan, *Holy War, Inc.* (New York, The Free Press, 2001), p. 24.

6. US DOD Joint Staff definition, adopted by (Canadian) Armed Forces Council, 18 April 2000.

7. Definition developed by the Army Terminology Board 22 January 2002.

8. B-GL-300-002/FP-000 *Land Force Tactical Doctrine*.

9. Vincent J. Goulding, Jr., "Back to the Future with Asymmetric Warfare," *Parameters* (Winter 2000-01), pp. 21-30.

10. Bergan, *Holy War, Inc*., pp. 116-117.

11. According to Hansen, the "Daughters of the Confederacy," like the Spartan wives, were the matriarchs and the guardians of national and extended family honour. The message was similar-their men should not return after defeat unless dead on their shields.

12. Julius Caesar himself had used manoeuvre and psychological warfare against numerically superior Gaulic and Germanic forces. One of Caesar's psychological warfare techniques was to burn down Oak forests before a battle, knowing how the superstitious Germans identified with the spirit of the Oak.

13. *Webster's New World Dictionary*, 2nd College Edition (Toronto: Nelson, Foster and Scott, 1970).

14. Ibid.

15. Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, eds., (Princeton: Princeton University Press, 1984), p. 75.

16. Colin Gray, "Thinking Asymmetrically in Times of Terror," *Parameters* 32, 1 (Spring 2002), pp. 5-6.

17. Gwyn Dyer, presentation at Queen's University, 29 October 2002.

18. Anatol Lieven, "Hubris and Nemesis: Kosovo and the Pattern of Western Ascendancy and Defeat," *War Over Kosovo: Politics and Strategy in a Global Age*, Andrew J. Bacevich and Eliot A. Cohen, eds., (Columbia: Columbia University Press, 2001).

Shifting Paradigms

Be Careful of the Grails You Consider Holy

(Some Thoughts on the Army's Future Force Structure)

by Major L.R. Mader, CD

BACKGROUND

The conduct of military operations is fraught with unknowns. "Everything is very simple in War, but the simplest thing is difficult. These difficulties accumulate and produce a friction which no man can imagine who has not seen War."[1] History is replete with examples of things going badly in war. Units get lost, orders are misunderstood, and decisions can be made in the heat of battle by one commander that have an adverse impact on the actions of another friendly force.

The withdrawal of the German forces in the First Battle of the Marne in 1914 based on the decision of a lieutenant-colonel,[2] the aborted rescue of the American hostages in Tehran,[3] the failure of certain senior British naval officers to display proper initiative during the Battle of Jutland,[4] the French decision to seek decisive action at Dien Bien Phu in 1953-54,[5] and the halting of the strong Syrian 91st Armoured Brigade on 7 October 1973 only three miles from the key, nearly-undefended Israeli bridge over the Jordan River[6] all provide examples of things going wrong in war. These errors, and many others, are the result of systemic problems, situational occurrences and just bad luck.

The Iranian failure to improve its armed forces during the Iran-Iraq War, emphasizing instead human wave attacks and religious fervour,[7] is an example of a more serious type of error in war. This is the error made at the highest command levels with respect to war aims and/or the means of conducting the war. The pursuit of erroneous doctrine or force structures in peacetime can easily lead to the same result during a crisis or conflict. Failure to avoid such errors in peacetime can doom even the luckiest and best-armed force once a war, conflict or crisis occurs.

Canada must be sure that it is not making such an error in its army's force structuring and doctrine development. As we enter the second decade since the collapse of the Soviet Union and the indisputable end of the post-Second World War, Cold War, the Canadian Army faces many challenges and choices. Due to these, the Army is forced to change the manner in which it operates; to paraphrase an expression used by some—its paradigm has shifted and it must find its way forward.

The decisions made in answer to the current challenges faced by the Canadian Army will have long-lasting effects. If the proper decisions are made, the Army will advance into the 21st century reasonably well positioned to undertake the probable tasks it will face. If the wrong decisions are made, Canadian soldiers could risk needless death and defeat due to choices made, perhaps, before they were born.

The conduct of military operations is fraught with unknowns.

Canada has had an infantry-based army since its very beginning. The structure of the Canadian Army's response to each international crisis it has been called upon to face since the First World War demonstrates this infantry orientation. Various writers have proposed new paradigms for the Canadian Army to allow it to respond to its changing world situation.

Accordingly, the aim of this article is to discuss some of the issues that must be considered in the ongoing force structure, doctrinal and equipment debates and make a recommendation.

ORIGINAL CANADIAN ARMY PARADIGM

Aside from the North West Rebellion, for most of our history since Confederation, the Army has sent expeditionary forces outside of North America to participate in foreign wars. During the early 1950s this paradigm shifted with the permanent stationing of a brigade in Europe. An element of the original paradigm was, however, still present as the permanently based European brigade would be

Has our infantry orientation limited the development of critical capabilities? (Courtesy National Archives of Canada)

reinforced in a crisis by more forces moved from Canada.[8]

One common point about all these deployed or expeditionary forces was that they were infantry-heavy formations. The ratio of infantry battalions to cavalry/armour and field artillery regiments in Canada's three 20th century wars ranged from about 2/1/1 to around 10/1/4.[9] The Canadian Army's contribution to the NATO defence of Western Europe evolved during the 42 years of commitment. It was always, though, predominantly infantry, being based on an infantry, and later a mechanized infantry, brigade group. The infantry/armour/field artillery mix in this brigade group varied from 15/1.5/3 to 2/1/1.[10]

The end of the Cold War and the complete withdrawal of non-peacekeeping army units from overseas led to a return to the original paradigm of expeditionary forces. Although no large army formations have deployed overseas since before 1990, planning for such deployments has continued to emphasize infantry-heavy formations for the never-deployed Army contribution to the coalition effort during the first Gulf War (1990/91) and in Army planning documents to meet the Army's expeditionary mission.[11] This infantry orientation has even carried over into the area of stated government policy. In its *1994 Defence White Paper*, the Canadian government specifically directed the Army to be able to deploy a Main Contingency Force (MCF) brigade group containing three infantry battalions, an armoured regiment and a field artillery regiment.[12]

Such an infantry orientation has often been appropriate or unavoidable, the Korean War and the early part of the First World War being two examples. However, it can be argued that such a response has not always been the best. One can speculate on the role that 4 Canadian Mechanized Brigade Group (CMBG) would have had during the first Gulf War if it had been deployed to Saudi Arabia. Its infantry-heavy nature and lack of modern, long-range, offensive, anti-armour firepower would have argued for a defensive role, a rear area security task, a mopping up mission or an assault role in close terrain (if such could be found in the Kuwaiti-Saudi desert). These roles could have been either very bloody or inglorious (thus possibly not achieving the probable political goals 'hat would have led to 4 MBG's original deployment). Operation SABRE and the MCF brigade group risk a similar situation by proposing a mechanized infantry brigade group as the Canadian Army's planned contribution to crisis response.

SEARCH FOR A NEW PARADIGM

Faced with the problems of traditional, infantry-heavy forces, a perceived Revolution in Military Affairs (RMA), a very clear revolution in strategic situation, a heavy operational tempo and a shortage of funds and personnel, the Army has sought to be "strategically relevant and tactically decisive."[13] Clearly, the Army cannot stand still in the uncertain and rapidly changing times that have followed the end of the Cold War. It must, however, avoid the mistake of emphasizing the wrong things in adapting itself to the changing world situation.[14] The Army's leadership does not suffer from a lack of suggestions on how to effect the needed change.

The Chief of the Land Staff (CLS) himself has identified the need to use "leading edge technologies" to prepare the Army for the future.[15] This orientation towards high-technology solutions and the level of performance expected from technology are illustrated by the CLS's description of what the equivalent of a modern 70-ton main battle tank will probably look like in some 20 years. In testimony to SCONDVA, CLS indicated that he saw such vehicles:[16]

Canada has had an infantry-based army since its very beginning.

Major L.R. Mader, CD

- being probably wheeled rather than tracked;
- weighing about the same as the current LAV III armoured personnel carrier;
- being of stealthy construction and ultimately perhaps invisible;
- carrying counter-measures and sensors that will stop all incoming rounds;
- having firepower equivalent to that currently provided by a 120 mm tank gun; and
- having the shock action of a modern tank such as the M1A1.

Even this senior level preference for high technology has not provided the Army with a single way ahead. At least two different high-technology-based solutions have been proposed for the future Army.

Urban Assault Force Structure Paradigm

The other high-technology paradigm has gone in exactly the opposite direction. It argues that the enemy will hide in complex (principally urban) terrain to escape the overwhelming firepower and conventional strength of our closest allies. Therefore, the Army's most likely tasks will involve entering complex (urban) terrain to deal with such enemies. The force structure proposed in support of this vision is essentially a formation of high-technology SWAT teams. The teams would be supported by numerous advanced technology sensors to avoid the casualties that have traditionally been a part of urban warfare. In contrast to the previous paradigm, this second one tries to cater for the Army's full range of missions by proposing that its "SWAT teams" be supported by about forty armoured combat vehicles (ACVs) and some long-range, precision missile firepower.[20]

The army's most likely tasks will involve entering complex (urban) terrain to deal with such enemies.

The Antiseptic War Force Structure Paradigm

The first of these proposals sees deep strikes by precision forces as obviating the need for serious fighting to win a conflict.[17] In the extreme view of this theory, such close combat forces as are retained would really only be needed for mopping up and accepting surrenders.[18]

One strong proponent of this viewpoint dismissed the obvious response to such long-range strikes—placing key enemy assets near schools, hospitals and cultural/religious sites. He argued that no one would blame Canada under the Law of Armed Conflict for hitting such sites in pursuit of the destruction of legitimate military targets.[19] This attitude ignores how the legitimacy of a military operation can be undermined on the home front, even when the operation is conducted within legal bounds.

DISCUSSION

These two force structure options, to the degree that their details have been articulated, suffer from the same problem as the original paradigm: they are limited in their applicability. They are very good solutions to some military problems. However, building the entire Canadian Army around them would run the risk of making a fundamental choice now that does not meet the needs of the situation actually faced as a conflict or strategic situation evolves in the future. In fact, in some ways they are not as multi-purpose as the original infantry-heavy approach. At least, the original paradigm emphasized a component—the infantry-that has a broad utility in war and conflict. This author believes that national level force structures do not have to be an all-of-one-thing concept. It should be possible to blend a number of approaches into the Army's force structure without exceeding the available resources. While attempting a balanced force structure can be harder than a let's-make-the-tough-decisions-now approach, it has the benefit of offering greater flexibility when a crisis appears and the forces are actually required.

We will now look at the needs of a future force structure under three broad areas:

- the doctrinal requirements that the Army has established for itself;
- the lessons offered by recent Canadian operational research; and
- the lessons that we can glean from our allies.

Subsequently, discussion will move to the types of units that Canada must have in its army in order to provide a broad utility across the spectrum of conflict. Finally, the discussion will highlight an additional peacetime benefit of the type of army that is being proposed.

Doctrinal Requirement

Recognizing that the world has changed since the end of the Cold War, the Army's keystone doctrine manual[21] calls for the Army to change radically from its traditional method of operation. It states that the Army must be capable of "...achieving and maintaining information dominance over an enemy or adversary in all phases of a conflict..."[22] It must also make a careful and thoughtful use of digital (computer) technologies to support command structures and leadership styles[23] that exploit the fundamental change in the dynamic of fire and movement brought on by the ability

Type of Terrain	% Kills by ACV—Combat Team Defence	% Kills by ACV—Company Group Attack
Mixed	42.1%	42.9%
Prairie	52.5%	34.7%
Mountainous (with vegetation) (complex)	40.2%	16.4%

Table 1: ACV Performance By Terrain Type [33]

to see and destroy the enemy at long range.[24] This effort seeks to defeat an opponent "by attacking his cohesion and eroding his will to fight or resist."[25] The Army must be able to operate in this manner as part of joint and/or combined structures in purely Canadian Forces' missions[26] and during multinational operations.[27]

During these joint and/or combined operations, it will be "Of particular importance to the Canadian Forces [to be able] to conduct independent and self-contained operations. Without this capability, Canadian units participating in multi-lateral operations risk being broken up haphazardly among the other forces involved, violating the principle … that Canadian troops should always operate within an identifiable national force structure."[28]

In his vision statement in *The Army Strategy*, the CLS directs that "The Army will generate, employ and sustain strategically relevant and tactically decisive medium weight forces."[29] This strategy builds on the Canadian Forces' direction for force development for the next 20 years.[30]

Thus, our doctrine and senior guidance call for strategically relevant, tactically effective, medium-weight forces that are able to carry out discrete missions within a coalition/alliance setting. These forces must also be able to operate jointly with solely Canadian Forces assets for operations of interest only to Canada.

Points from Recent Operational Research

Canadian operational research experience shows the degree to which a mechanized infantry-based force structure may not always be the most appropriate one to meet the tasks that might be encountered during a crisis. Several recent studies carried out by the Operational Research Division (ORD) in Ottawa indicate that, during mechanized combat, the brigade group's direct fire support vehicle (DFSV), be it the Leopard C2 tank, a more modern tank or a 105 mm-armed ACV, is a very significant, integral weapon system. In these studies the Leopard C2/ACV inflicted between 37.5% and over 80% of the enemy GENFORCE's losses during mechanized attack and defence scenarios.[31] This importance seems to be somewhat independent of the nature of the terrain on which the mechanized battle occurs. Table 1 shows the ACV's level of kills during sub-unit defensive and offensive operations in three different terrains during the Iron Noble study into the use of the ACV in operations other than war (OOTW).[32]

Given such performance, some might then wonder why Canada does not field only armoured units. Doing so would be to risk creating operational conditions that resemble the terrible Israeli experience during the Yom Kippur War when tank-only units were sent against dismounted infantry armed with good anti-tank weapons.[34]

This lesson is supported by the ACV's significantly reduced (only 16.4%) contribution during the company group attack in complex mountainous terrain found in Table 1. Examination of the relevant information in the Iron Noble study's report shows that, in the complex terrain, the ACV's percentage contribution dropped because other friendly systems accounted for 94% of the dismounted enemy infantry lost.[35] These infantry kills are significant as the enemy's infantry represented 77.3% of his losses in complex terrain.[36] In the same battle 43.3% more ACVs were lost compared to the average for the same mission in the open and mixed terrains.[37] These results reinforce the importance of the balanced combined arms team in which the strengths of each arm are emphasized and their weaknesses shielded or minimized.

A more recent ORD study (Project BRONZE ZIZKA)[38] looked at the strengths and weaknesses of the proposed 2005 version of the MCF brigade group. This study showed what could happen when a Canadian formation lacks the proper balance of capability among its combat functions. In this study, the MCF brigade group was required to attack a reinforced motor rifle battalion carrying out a GENFORCE manoeuvre defence on mixed terrain and to defend against a weakened motor rifle division, again on mixed terrain. For study reasons, the brigade group benefited from only limited allied support.[39] In both missions, the MCF brigade group suffered due to its lack of capable, long-range firepower. This weakness forced it to give up its manoeuvrist offensive plan and to use its relatively large number of infantry to engage the enemy in attritionist fighting.[40] Benefiting from its many hand-held anti-armour weapons, the Canadian infantry in these battles was able to cause very heavy losses to the enemy. However, this success came at the cost of crippling Canadian losses that would have prevented

Major L.R. Mader, CD

the brigade group from taking on a subsequent mission without massive refitting.[41] Tellingly, some 51% to 68% of the Canadian key system losses were caused by systems about which the victim could do nothing, either due to being out-ranged or because it lacked the necessary firepower.[42] The MCF study reinforced the lessons of five earlier operational research studies[43]—the Canadian Army does not have the equipment that it needs to carry out its manoeuvrist doctrine.

In summary, Canadian operational research over the past eight years has highlighted the fact that the Army's current force structure and equipment suite cannot meet the needs of modern warfare and our own manoeuvrist approach to operations. The Army would require very significant support from our allies or coalition partners if called upon to face a relatively modern enemy during a crisis. Since the Army's identified weaknesses strike at the most basic building blocks of the combined arms team, it could be argued that things cannot be left as they currently are to simply await such support. Additionally, this research has highlighted the fact that the performance of key systems can be seriously affected by the terrain on which operations are being conducted.

Lessons from Allied Experience

At the theoretical level, the writings of our closest allies indicate that the Army would be pursuing a common way ahead with either of the high-technology paradigms that are described above. Generally, NATO armies are trying to make themselves more strategically mobile and to benefit from the technologies said to be driving the RMA.[44] Our closest ally, the USA, believes that the need exists to be able to take the fight to the enemy in complex (urban) terrain where he is expected to hide from the US's massive conventional superiority.[45] This belief builds on the unfolding of the first Gulf War (1990/91). Even with the limited precision weapons available in 1991, the US-led coalition was able to inflict severe physical and morale losses on the Iraqi forces that sat so conveniently in the open desert for some six weeks.[46] Many believe that a future adversary of the United States will seek to avoid such punishment by "hugging" a nearby civilian population.

Our allies' experience during recent actual combat provides a less clear picture of what is the right way ahead. Some may claim that the 1999 Kosovo War and the 2001 Liberation of Afghanistan show that precision air strikes can win a war by themselves. A more thoughtful comment is that the Yugoslav army in Kosovo and the Taliban laboured under the significant disadvantage of having to deal simultaneously with powerful and unanswerable air strikes and a highly motivated and relatively strong indigenous opposition group. Faced with the threat on the ground, the "government" forces could not disperse and hunker down to ride out the air strikes. When forced to mass forces to deal with semi-conventional ground threats, the Yugoslav and Taliban forces started to present the types of targets about which bomber pilots dream.[47]

The second Gulf War (Operation IRAQI FREEDOM) is too recent to provide clear, immutable lessons. The advance towards Baghdad appears to give comfort to those that believe precision strikes will obviate the need for much ground combat. However, while coalition combat losses were very low for what was accomplished, it is far from clear that the troops of the 3rd US Infantry Division and 1st Marine Expeditionary Force were simply mopping up. Further, given the seeming collapse of many Iraqi formations, the Republican Guard being the most important, it is to be wondered which was more important—the precision weapons that struck the Iraqi forces or the propaganda leaflets and 12 years of sanctions that had apparently undermined their morale. Would the precision strikes used to support the advance on Baghdad have been so seemingly effective against an enemy that was much more motivated to resist?

In summary, our closest allies' theoretical discussions indicate that we are following the crowd in terms of future combat theory. Their recent combat experience seems to confirm, though, an essential truth of war—it defies simplistic formulae and reduction to standard, always-right patterns. To put it another way, in war almost anything (plans, concepts and doctrine, personnel policies, force structure, equipment suite, etc.) can be right some of the time, but nothing will be right in all circumstances. Thus, we must avoid being locked into a force structure that needs a very special set of circumstances to be useful.

...all deployed forces must be supported by robust logistics and medical support...

THOUGHTS ON FUTURE FORCE STRUCTURE

The discussion above reveals that theoretical doctrinal discussion, operational research and recent practical experience all push for the need for a robust, flexible force structure. This should give pause to those who want to force the Army down one narrow development path or another. Only fantasists or the most self-confident of theorists argue that their tightly focussed vision is the only true one.

If the Canadian Forces were an independent entity, they could perhaps afford the luxury of rigidly following the dictates of whichever

theoretician seemed the wisest. However, in a democratic society, the military is not, and should not be, independent. Democratic governments can and must change policy over time as circumstances and electoral results dictate. Thus, the Canadian Forces must be capable of supporting government policy without a massive (and expensive) restructuring and re-equipping whenever our defence policy (enunciated or de facto) evolves.[48] This fact, even more than the points summarized in the previous paragraph, argues strongly for a flexible Army force structure.

With this in mind, I would like to provide some general thoughts about the types of forces that the Army should develop or retain. These comments will not include air and naval forces; their structure, in this case, is outside the purview of *The Army Doctrine and Training Bulletin*. Further, given the strength of our own navy and air force and those of our closest allies, it is assumed that a deployed Canadian field formation will be supported by suitably strong, appropriate and very capable air and naval components.

In these comments, I will not embark into detailed discussions of equipment types, rank structures, which technologies to use or personnel strengths in a brigade group. Instead, it is preferred to highlight the types of units that the Army must have in some quantity to permit the deployment of crisis reaction forces. The number of each type of unit in a crisis reaction contingent cannot be decided without a solid understanding of the nature of the crisis. Clearly though, the government-mandated MCF brigade group task sets a minimum numerical requirement. This requirement needs to be doubled or tripled for most types of units in order to sustain this brigade group as well as permit peacetime combined arms training and meet various other national imperatives. At the end of the discussion on the types of units is my suggestion for the minimum number of each type of unit that I believe that the Army requires.

Finally, in my discussion traditional names for the types of forces required will be used. This may cause some to feel my comments are too traditional. I would reply that inventing names just to be different only creates needless confusion.

Direct Fire Support Vehicle

Research, informed professional discussion and the second Gulf War indicate that, in mechanized operations, the tank/DFSV is a major contributor to success. Capable versions of these vehicles provide a combination of very responsive firepower, protection, mobility and shock effect unavailable with any other single land combat system. They are a critical part of being able to fight offensively, which is a primordial doctrinal requirement, since "Attacking cohesion [the heart of the manoeuvrist approach] is most effectively done by offensive action…"[49] This offensive capability also contributes to a robust defensive capability. However, even the best of these vehicles has its vulnerabilities that will be only partly addressed if we are able to field the lighter, high-technology DFSV, to which CLS referred in his testimony to Parliament.

Whether the DFSV we field in the future is a 70-ton M1A1 or the high-technology LAV envisioned by CLS is not the most important point. What is critical is that the DFSV we purchase in the future can carry out its tasks effectively in a timely fashion and make a significant contribution to the Canadian Army's combat capability. The MCF operational research study highlights how badly our side can be let down by an obsolete tank/DFSV if faced by a relatively modern enemy who is not defeated by massed air power and other long-range systems before coming into action against Canadian ground troops.[50]

In addition to being a key system for MCF-type operations, DFSVs can also be very useful in OOTW missions. This is borne out by the deployment of Cougars to Bosnia and Somalia and of Leopards to Kosovo.[51] In fact, such missions require capable vehicles, as our forces are likely to be isolated in relatively small groups when something goes wrong. In these circumstances, they will need all of the help they can get quickly. The Iron Noble study into the use of an ACV for OOTW highlighted the need for such armoured fighting vehicles (AFVs) to have both "presence" to provide deterrence during such missions and a solid combat capability for when deterrence fails.[52]

For all of their strengths, history and operational research make it clear that tanks and DFSVs cannot carry on the fight alone in all terrains and against all enemies. They must work as part of a combined arms team. This truth then points us clearly to the force structure road to follow-we must build combined arms teams that can operate across the broadest range of terrains and against the most diverse set of opponents possible in order to meet the tasks set by the Canadian government.

Indirect Fire

An inherent part of any effective offensive capability is being able to apply fire onto an enemy. This firepower capability should have both a direct and indirect component to cater for the vagaries of combat and to provide the range and flexibility needed to respond to different possible missions. Common sense and the lessons of several operational research studies indicate that the firepower used should be as precise and effective as possible. Such fire can cause crippling losses on the enemy in the proper circumstances.[53] Some might argue that future DFSVs could meet both the direct and indirect fire tasks. This may turn out to be true. But are we sure we will not want units that specialize in

Major L.R. Mader, CD

indirect fire to support the dedicated direct fire / manoeuvre DFSVs and other forces? Therefore, the Army should ensure that it supplements its direct fire capability with indirect fire systems that are able to provide long-range, precision fire.

Intelligence, Surveillance, Target Acquisition and Reconnaissance and Command and Control

This firepower, and its related manoeuvre, must be supported by comprehensive ISTAR and C2 systems. The ISTAR component must be based on a range of capabilities using a broad spectrum of active and passive sensors that cannot all be blinded by a single enemy action, weather or rapid changes in the battle.[54] The ISTAR system must also contain sufficient sensor systems so as not to be seriously degraded by the loss of one or two high performance systems.[55] The C2 system must be robust and flexible enough to resist enemy actions and cater for the exigencies of operations. It must have sufficient bandwidth and throughput capacity to cater for the growth of digital communications and the amount and type of information that the ISTAR system will be providing.

Infantry

The urban combat paradigm school shows us clearly the next element that we must have in our combined arms team. Only the infantry is little affected by the terrain on which operations will occur. If mechanized operations really do succeed in pushing an opponent into complex terrain, we will need dismounted infantry to root out those enemy units whose destruction or surrender is essential to meeting our mission aims. Capable infantry units also provide a broad range of capabilities beyond that of being able to fight in cities and close terrain. While the exact composition of these infantry units will not be discussed, it is clear that a mixture of light and mechanized infantry battalions would provide greater flexibility in structuring forces for missions.

Field Engineering

The basic need to move around a theatre of operations and the obvious possible actions of an adversary mean that deployed forces must be supported by a broad field engineering capability. One can never be sure when and where our forces will need to hinder enemy mobility, or improve our own routes, in urban areas and open terrain. The offensive orientation of the manoeuvrist approach to operations means that we must not allow an enemy to delay us with obstacles. Engineer units are such an integral part of the basic combined arms team that we cannot really afford to contract out this capability to currently unidentified allies or coalition partners.

The need for engineering support raises doubt whether we will be able to obtain all the supposed deployment benefits of having only medium-weight forces. Earth moving, obstacle clearing and rapid minefield breaching make certain basic demands for horsepower, traction and work rate. These make it unlikely that a light wheeled vehicle will meet all of the Army's tactical field engineering needs. Operational research in 2001 demonstrated that the then-envisioned lighter replacements for the Leopard-based armoured engineering vehicles would probably not meet these needs, except in the most benign of environments.[56] Hard decisions will likely have to be made as to the type of engineer vehicles that support our field forces.

Air Defence

The experience of the 2001 Liberation of Afghanistan, the 1999 Kosovo War and the first and second Gulf Wars may cause some to doubt the need for any Canadian Forces air defence capability. Sceptics will probably find it hard to imagine that we may not be supported during some mission by overwhelming coalition/allied air power. Even the presence of such air support does not guarantee that no opponent will ever be able to use some quantity of unmanned air vehicles (UAVs) and surface-to-surface and cruise missiles against us. We will have to be able to deal with these threats. The MCF brigade group study highlights the damage that can be caused by even a few UAVs able to loiter over our troops and guide fire onto key Canadian units and assets.[57] The threat would be even greater in a crisis where the available coalition/allied air power could not cover the entire battle space and meet the immediate needs of all friendly forces.

Aviation

Unlike fixed wing aircraft, helicopters are an important integral part of a modern combined arms formation. Three broad types of helicopters are directly of interest to an army formation: recce/surveillance, transport and attack. I consider the recce/surveillance type to be part of the ISTAR capability and will not discuss it further. The importance of transport helicopters is inversely proportional to the "heaviness" of the supported formation. Mechanized brigades draw most of their transport from their AFVs. Light brigades need many more transport helicopters to compensate for their lack of vehicles. Attack helicopters can offer a significant combat capability particularly if the air defence situation is relatively benign. If Canada is not able to procure capable transport and attack helicopters, it must at least maintain an aviation capability that can provide the interface with allied/coalition transport and attack helicopter units.

Psychological Operations and Civil Affairs

The experience of the second Gulf War seems to highlight the utility of psychological operations (Psy Ops)

Type of Unit	No of Units	Remarks
Brigade level HQ and signals unit	3	These units support three brigade groups and provide sustainment for deployed MCF. They provide ability to maintain a rotation of brigade HQs to non-MCF missions such as Bosnia (IFOR) and Afghanistan (ISAF). They support the basic structure for combined arms training.
DFSV unit	2+	Having two DFSV units would permit the deployment of a heavy MCF to places like Kuwait, which puts an emphasis on armoured warfare. One of these units could provide the permanent enemy at the Canadian Manoeuvre Training Centre (CMTC) in peacetime. These units can also provide DFSV sub-units for missions such as Kosovo, Bosnia and Somalia. Thus, they contribute to the depth of combat arms units needed to support year-in, year-out rotations for long-running missions. At least one DFSV sub-unit is required for each brigade group that does not have a complete unit in order to support peacetime training and provide some depth in the force structure. An additional sub-unit is required for the Combat Training Centre (CTC) to permit officer and advanced NCO training without the immediate requirement to take resources from the brigade groups.
Recce unit	2+	Having two recce units would support the frequent deployment of Coyote squadrons overseas. This structure would also permit a specialized, multi-unit ISTAR deployment. At least one recce sub-unit would be required in the brigade group that had a DFSV unit to support peacetime training.
ISTAR unit	1+	The ISTAR unit must include UAV, electronic warfare and counter-battery target acquisition capabilities. The unit would have to be strong enough to undertake an MCF tasking or to support smaller missions (possibly concurrent) with some or all of the above technologies. Extra personnel and equipment will be required to support training and permit some sustainment and rotation during a drawn-out crisis.
Light infantry unit	3	These units provide the ability to deploy a light MCF brigade group. They permit the deployment and sustainment of a light contingent to missions such as Afghanistan. They contribute to the depth of combat arms units needed for year-in, year-out rotations. Grouping the three units in one brigade group in peacetime has some attractions but also some limitations. Either approach should be workable.
Mechanized infantry unit	4+	Four units provide the ability to deploy a medium-weight MCF brigade group and the Immediate Reaction Force (Land), or IRF(L), battalion. They permit the deployment and sustainment of a heavier battalion-sized contingent to missions such as Bosnia (SFOR) and UNPROFOR. They contribute to the depth of combat arms units needed for year-in, year-out rotations. One unit could be the supporting battalion for CTC to permit officer and advanced NCO training without immediately having to take resources from the brigade groups. At least one additional sub-unit would be required for the enemy force DFSV unit based at the CMTC.
Indirect fire unit	3+	These units must have a mixture of launchers to be able to support a light and heavier MCF brigade group. They must have enough observer parties to support all manoeuvre units in their brigade group. A minimum of two firing sub-units is required per unit to permit brigade level indirect fire training. Their distribution among three brigade groups supports peacetime training and the establishment and maintenance of direct support affiliations. An additional element is required to support training at CTC. The grouping of the infantry's mortars with this unit is not essential but could be supported.
Air defence unit	1+	The primary role of this unit is to support the MCF task. The same equipment could support both the light and heavier MCF in a pinch as key elements to be protected in a light MCF would need similar type of transportation as the air defence launcher. The unit must be equipped with an air defence system that can deal with UAVs and surface-to-surface and cruise missiles. It must be able to deploy liaison parties to all three brigades in peacetime to support training. CTC will require personnel and equipment to support training and permit some sustainment and rotation during a drawn-out crisis.
Field engineering unit	3+	These units must be able to support mechanized and urban operations. The presence of a unit in each brigade group supports peacetime training and establishment and maintenance of affiliations. An additional element is required to support CTC.
Logistics, medical and MP units	3	A unit of each type is required in each brigade group to support training and operations. The number of units also supports rotation through long-running missions such as Bosnia, Golan Heights and Cyprus.
Aviation unit	3+	Each brigade group requires an aviation unit to support combined arms training. A grouping of helicopters could support a light or heavier MCF task. The units should contain capable ISTAR, armed and transport aircraft. If it is not possible to have all three types, then the units must at least have a transport and ISTAR capability and the ability to interface on behalf of the brigade group with allied/coalition attack helicopters.
Higher level logistics and support units	1	At least one unit of each type is required to permit the deployment of national level support units during a crisis without raiding the brigade groups of their supporting units. The presence of these units supports general rotation for long-running, smaller missions. These units are at least partially a joint requirement and thus should not be charged solely against the Army's resources.
Psycho-logical operations	Cadre	This cadre of staff officers, warrant officers and NCOs would support peacetime training by CTC, CMTC and the three brigade groups. An additional training element is required. This capability is a joint requirement and should be provided by the Canadian Forces.
Civil affairs	Cadre	This cadre of staff officers, warrant officers and NCOs could support peacetime training by CTC, CMTC and the three brigade groups. An additional training element is also required. This capability is a joint requirement and should be provided by the Canadian Forces.
NBC defence unit	2+	These units would permit the Canadian Forces to respond to a domestic situation and a major foreign deployment simultaneously. A separate training establishment is also required. These units are at least partially a joint requirement. They should not be charged solely against the Army's resources.
Special operations forces	1+	The requirement is for a unit that can meet the permanent counter-terrorism mission while being able to sustain at least a company-sized element for several rotations during a special mission such as Afghanistan. More units, or a larger unit, would be attractive, but care must be taken to avoid requiring more special forces than the larger army force structure can generate without reducing quality. This capability is a national level requirement and should be paid for by the Canadian Forces.
Higher formation HQ and signals unit	1	At least one unit is required to permit the deployment of a national level command element during a crisis without raiding the brigade groups. The presence of this unit supports general rotation for long-running, smaller missions. This unit is at least partially a joint requirement and thus should not be charged solely against the Army's resources.

Table 2: Proposed Minimum Future Army Force Structure

Major L.R. Mader, CD

and civil affairs (CA) support to undermine the enemy's morale and cohesion. Expecting combat or support units to deal with Psy Ops / CA is to assume that such operations are easy or unimportant or that the primary duties of these units do not require their full attention. Some may argue that psychological operations and civil affairs are not really a brigade group responsibility. However, not having these experts in a deployed Canadian brigade headquarters would mean that there would be no Canadians designated and capable of interfacing with the higher formation's psychological operations and civil affairs staffs. Thus, someone else in the brigade would have to take on this duty, perhaps at the last minute, to the detriment of his/her principal duties. Should limited resources prevent the formation of dedicated units, we must at least train staff officers in these tasks.

Nuclear, Biological and Chemical Defence

The current fear of a terrorist use of NBC weapons of mass destruction has led to the formation of an NBC defence company in the Canadian Forces. As with JTF2, this company is not part of the Army, but it can support army operations. Thus, the Canadian Forces already has a certain NBC defence capability that can provide a response to a terrorist or conventional NBC threat. This capability provides a certain element of deterrence and protection. It cannot, however, deploy overseas and still be able to respond to a domestic threat.

Service Support

As can be seen from every mission we have sent overseas, all deployed forces must be supported by robust logistics and medical support. This capability must be able to support mobile operations in immature theatres of operations.

Special Operations Forces

The Liberation of Afghanistan and the second Gulf War highlight the utility of unconventional forces for certain missions. The relevant Canadian unit, JTF2, is not actually an army unit. However, the Canadian government's willingness to send elements of JTF2 to Afghanistan as early as October 2001 shows that, in certain circumstances, small, highly trained unconventional forces may be more politically deployable than larger, more conventional forces. Doing without this capability would reduce the strategic options open to the government in some future conflict. Thus, the Army should support JTF2 even if it belongs to another part of the Canadian Forces.

PROVISION OF RESOURCES

Many readers could well wonder where we will find the resources to pay for the above broad list of units. The number of types of units, the number of units and the need for highly capable equipment could make the above list unaffordable. I do not believe that this is a certainty for several reasons.

Firstly, Canada is already paying for an army of some 18,000 soldiers supported by over 1,400 AFVs and four squadrons of Griffons. Reorganizing these resources to be able to provide enough of the above units to deploy a capable MCF brigade group while catering for smaller peacetime missions, sustainment, training, taskings and unconventional operations does not seem to be impossible.

Secondly, not all areas need to have the same depth of capability. In some that do not relate to the basic building blocks of the combined arms team, we could make use of skeleton units or subject matter expert cells.

Thirdly, at least one defence minister has made the case for pursuing the RMA. The pursuit of high-technology solutions has an inherent cost. The Army must make the case, as it has been doing, that it cannot field more capable forces without the funds being found to pay for those forces. These funds could be either new money or a reallocation of Canadian Forces resources. Such a reallocation is especially logical for those army requirements that are actually, or partially, joint (Canadian Forces) requirements.

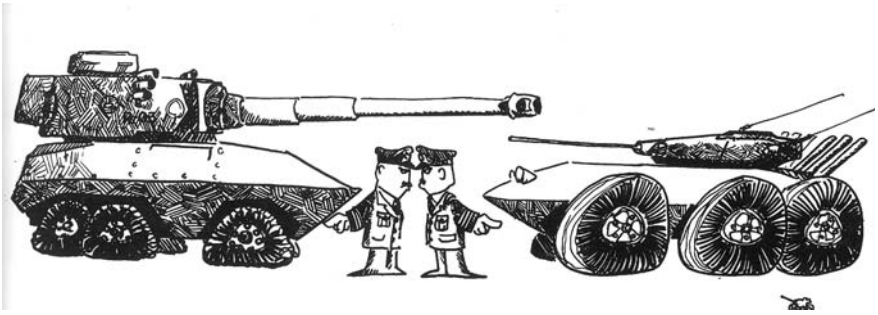
Finally, one must wonder whether we can afford not to build capable and flexible forces. While cutting corners saves money in the near term, it has a way of coming back to haunt us when a crisis appears. Unfortunately, in conflict and war, such backlashes usually cost the innocents death and injury.

Despite the importance of maintaining flexibility the Canadian Army has pursued an infantry-heavy force structure throughout its history.

Table 2 provides an outline list of units for a flexible Canadian Army of the future. The number of units shown represents the minimum number of each type of unit that I believe Canada must maintain in its regular army field force and in the Canadian Forces' joint force structure. As a starting point, the logic of three brigade groups that has underpinned army force structure since 1992 is accepted.

INTANGIBLE BENEFIT OF A FLEXIBLE FORCE STRUCTURE

Over the past decade, I have often heard experienced officers argue that we should get serious and realize that the government will never task us to do certain missions. These officers felt we should concentrate solely on the types of operations we have been



As the army searches for its new paradigm, we must carefully determine where the emphasis must lay. (Cartoon by Lieutenant-Colonel (Retd) Roman Jarymowycz, Ph.D)

carrying out in the past decade. By this logic the Canadian Forces would probably never have been called upon to deploy infantry and ships to fight a war in Afghanistan or fighters to bomb Yugoslavia and Iraq.

This sense of knowing the future perfectly goes beyond being able to foresee upcoming strategic requirements to the very essence of being a soldier. Experienced combat arms officers have told me that convoy escorts are all that we will be doing in the future. Listening to these officers, such OOTW tasks represent the pinnacle of 21st century Canadian soldiering. To some of them, it is only some perverse influence that pushes us to wish to retain the ability to carry out combat operations at the combat team and battlegroup levels. This attitude highlights the additional, intangible benefit of maintaining an army such as found at Table 2—maintaining a broadly oriented professional outlook.

Having a robust force structure that can answer a range of possible missions will help maintain our ability to carry out realistic combat training—the best *basic* preparation of soldiers for all types of missions. Such a force structure will also help the Army resist an insidious downward spiral of expectations that would have us only train for what we have recently done.

Officers, warrant officers and senior NCOs trained in a balanced and capable army will have a solid and positive sense of the roles and missions of all units. They will then be able to focus on mastering their professional duties to the betterment of their units and subordinates. Such officers and NCMs should also be reasonably well prepared to fit fully and easily into a larger coalition or alliance force. Having leaders whose professional knowledge is not hemmed in by limited expectations and training should ensure that we do not thoughtlessly send soldiers somewhere they should not have gone with their level of training, equipment and mental preparation.

CONCLUSION

History shows clearly, over and over, that war is as replete with errors as any other human activity. The consequences of such errors in war can, however, be far more serious. Soldiers risk death and terrible injuries as a normal result of their involvement in fighting. Should their leaders fail them, or simply be unlucky, they also risk defeat for themselves and the nation. Thus, armies and their parent nations must take care to minimize the likelihood and consequences of errors occurring. One way to achieve this is by building a military force that has as much inherent flexibility as possible. This requirement is clearly recognized in *The Army Strategy*, which calls for "flexibility to deal with a wide range of potential missions."[58]

Despite the importance of maintaining flexibility, the Canadian Army has pursued an infantry-heavy force structure throughout its history. The Army's contribution (planned or actual) to Canada's response to any crisis has been built around an infantry formation from the First World War through to the current planned MCF. This infantry orientation has not always provided the optimum military contribution. One has to be thankful that 4 CMBG was not called upon to play any major part in the deserts of Kuwait with its weak Leopard C1 tanks and preponderance of infantry mounted in nearly unarmed M113 armoured personnel carriers.

Reacting to the weaknesses of this traditional paradigm, for several years now, the Army has been pursuing a high-technology approach to giving its deployed forces greater combat power. Technology is expected to provide massive (some might argue unachievable) improvements in current capabilities in order to make Canada's expeditionary forces easier to deploy and significantly more effective than they presently are.

Several different schools of thought are pushing the Army to expend its finite funds on their high-technology vision of what the Army should be. The extremes of the debate are whether to purchase equipment optimized for urban or traditional (open terrain) operations.

Taken to extremes, either paradigm would leave the Army with a narrowly prescribed range of capabilities. In times of crisis the Canadian government could easily find that its army is neither adequately structured nor oriented to offer a broad and useful set of possible contributions to a crisis management effort. This weakness could easily lead to Canadians being misemployed in a coalition operation and unable to carry out unilateral actions.

Major L.R. Mader, CD

Such limited force structures would also seriously stunt the learning opportunities and reduce the expectation horizons of the soldiers and leaders serving in such an army. This limited approach could easily lead to a descending spiral where, through lack of training and vision, the Army restricts ever more narrowly what is "the normal and the likely" and continuously de-emphasizes what is "no longer credible or feasible." This spiral would almost certainly lead the Army towards some future defeat unless drastic corrective actions were taken.

This essay has argued, instead, that Canada should maintain a broad range of operational and support units. These units could then be grouped into tailored crisis reaction forces as events require. This approach would make the Army far more useful to Canada as a practical instrument of policy.

While such forces are not inexpensive, their cost is neither exorbitant nor probably more than that of some of the other visions proposed. Having such forces already existent will certainly be cheaper than having to improvise them when needed. Pursuing a more limited approach would, I believe, be a triumph of narrow theory and short-term thinking over common sense and a clear understanding of military history. A smaller, balanced army is more useful to Canada than one that is larger but of limited capability.

RECOMMENDATION

This author recommends that the Army seriously pursue the maintenance of operational flexibility by avoiding structuring itself too circumspectly in support of one or other narrowly focussed paradigm.

ABOUT THE AUTHOR

Major Les Mader is a graduate of Collège Militaire Royal de St-Jean and RMCS Shrivenham. He has served in field artillery and air defence units in Germany, Cyprus, Valcartier and Gagetown. He is currently serving in the Operational Research Division at National Defence Headquarters and is a regular contributor to this journal.

He gratefully acknowledges the editorial advice of Mr Ken Mader, LCol John Summerfield and Mrs Diane Mader.

ENDNOTES

1. Clausewitz *On War*, edited by Anatol Rapoport (Harmondsworth England: Penguin Books Ltd, 1968), p. 164. See also B-GL-300-000/FP-000 *Canada's Army: We Stand on Guard For Thee* (Kingston: Department of National Defence, 1998), p. 77.

2. Martin van Creveld, *Command in War* (Cambridge: Harvard University Press, 1985), p. 154 and p. 155.

3. Richard A. Gabriel, *Military Incompetence—Why the American Military Doesn't Win* (New York: Hill and Wang, 1985), pp. 85-116.

4. Ronald H. Spector, *At War At Sea—Sailors and Naval Combat in the Twentieth Century* (New York: Penguin Group, 2001), p. 86 and p. 90.

5. Bernard B. Fall, *Hell in a Very Small Place—The Siege of Dien Bien Phu* (Philadelphia: J.B. Lippincott Company, 1967), pp. 1-124.

6. Kenneth M. Pollack, *Arabs at War—Military Effectiveness, 1948-1991* (Lincoln and London: University of Nebraska Press, 2002), pp. 488-489.

7. Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War Volume II: The Iran-Iraq War* (Boulder and San Francisco: Westview Press, 1990), p. 60, 66, 67, 130, 143, 147, 150-152, 168-170, 176, 177, 181, 182, 184, 198, 231, 233, 245, 251, 253, 357 and 374.

8. See Sean M. Maloney, *War Without Battles—Canada's NATO Brigade in Germany 1951-1993* (Toronto: McGraw-Hill Ryerson Limited, 1997), p. 21, 74, 240 and 441-443. The original reinforcements were two more infantry brigades for the Central European front. The *1970 Defence White Paper* cancelled these brigades but substituted a brigade for North Norway. The *1987 Defence White Paper* cancelled the North Norway task for 5e GBC and instead tasked it to become the reinforcement brigade for a reborn 1st Canadian Division.

9. In World War I, Canada (not including Newfoundland) deployed 48 infantry battalions, 4 machine-gun battalions, 2 motor machine-gun battalions, a cavalry brigade of 3 regiments and the equivalent of 19 artillery regiments into battle (a ratio of 52 infantry/5 cavalry-motor machine-gun/19 artillery). Mike Chappell, *The Canadian Army at War* (London: Osprey Publishing Ltd, 1985), pp. 17-19, and Col G.W.L. Nicholson, *The Gunners of Canada Volume 1* (Beauceville: Imprimerie L'Éclaireur, 1967), Appendix B.

In World War II, the army had evolved to a more balanced structure. The overseas force consisted of 12 armoured (tank) regiments, 7 corps/division armoured car/recce regiments, 35 infantry/motorized infantry battalions, a parachute battalion, 3 infantry machine-gun battalions with 2 independent infantry machine-gun companies and 23 field/medium/survey artillery regiments with 1 rocket battery (a ratio of 19 armoured/ 39.5 infantry/23.25 artillery). Colonel C.P. Stacey, *The Victory Campaign—The Operations in North-West Europe, 1944-1945* (Ottawa: Queen's Printer, 1960), Appendix F.

During the Korean War, Canada provided a brigade group with three infantry battalions, an anti-tank (later tank) squadron of the Lord Strathcona's and three field artillery batteries (a ratio of 15 infantry/1 armoured/ 3 artillery). David J. Bercuson, *Blood on the Hills—The Canadian Army in the Korean War* (Toronto: University of Toronto Press, 1999), p. 40 and 113 and *Gunners of Canada* Volume 2, p. 565.

10. Initially, the brigade had three battalions, a tank squadron (and recce troop) and three artillery batteries. It then gained the rest of an armoured regiment to reach three battalions, an armoured regiment (and recce squadron), three field artillery batteries and a surface-to-surface missile battery. It then shrank to two battalions, an armoured regiment (including recce squadron) and three or four howitzer batteries. See *War Without Battles—Canada's NATO Brigade in Germany 1951-1993*, Appendix A.

11. The first Gulf War contribution was to be a mechanized brigade group built around three infantry battalions, an armoured regiment and an artillery regiment. See Major Jean H. Morin and Lieutenant-Commander Richard H.

Gimblett, *The Canadian Forces in the Persian Gulf-Operation Friction 1990-1991* (Toronto: Dundurn Press, 1997), p. 132. A similar structure was planned in the crisis-response planning document, Operation SABRE, of the mid-1990s. See Annex A to LFDP 520-Operation SABRE, 29 April 1994.

12. Canadian government, *1994 Defence White Paper* (Ottawa: Canadian Government Publications, 1994), p. 39.

13. See the Chief of the Land Staff foreword to the Canadian Army's strategy paper *Advancing With Purpose—The Army Strategy* (hereafter The Army Strategy), as found in the Internet early May 2002.

14. A striking example of the consequences of such an error is provided by the Iranian experience during the Iran-Iraq War.

15. See *The Army Strategy*, p. 10.

16. See the transcript of the Chief of the Land Staff's recent testimony to the SCONVA Parliamentary committee, as found on the Internet on 12 April 2002.

17. Comment by a staff officer during a conference at Fort Frontenac, Ontario, on 27 January 2000.

18. While not advocating such an extreme view in his article "Some Thoughts on an Army for the 21st Century," *The Army Doctrine and Training Bulletin* 2, 1 (February 1999), pp. 31-35, LCol Cessford does make points that could be taken by some to this extreme.

19. This comment was made on what is considered to be a privileged platform and thus is not attributed.

20. Draft proposal circulating on the periphery of the Army's Combat Development Board in early 2002.

21. *Canada's Army: We Stand on Guard For Thee*.

22. Ibid., p. 116.

23. Based on Ibid., p. 118.

24. Paraphrased from Ibid., p. 119.

25. Based on Ibid., p. 105.

26. Those who have difficulty believing that the Canadian Forces would ever be required to undertake unilateral action should consider what could have developed at Oka in 1990 and Sean Maloney's article "Never Say Never: Non-Alliance Operations in the Canadian Context," *The Army Doctrine and Training Bulletin* 2, 2 (May 1999), pp. 29-34.

27. Paraphrased from *Canada's Army: We Stand on Guard For Thee*, p. 117.

28. Paraphrased from Ibid., p. 116.

29. See *The Army Strategy*, p. 13.

30. *Shaping the Future of Canadian Defence: A Strategy for 2020* (Ottawa: Canadian Government Publications, 1999).

31. For more detail, see the author's article "Light Punching: The Case for an Improved 105 mm Tank Round" *The Army Doctrine and Training Bulletin* 4, 4 (Winter 2001-2002), pp. 58-62.

32. D.C. Wilkinson and Mr M.K. Ormrod, ORD Project Report PR 9607 *IRON NOBLE: Armoured Combat Vehicle Study* (Ottawa: Canadian Government Publications, 1996).

33. Ibid., Tables VI and XVIII.

34. For a description of the Israeli experience on the Sinai Front on 8 October 1973 see Allen Peter, *The Yom Kippur War* (New York: Charles Scribner's Sons, 1982), p. 120.

35. IRON NOBLE Report, Table XVIII.

36. Ibid.

37. Ibid., Table XIX.

38. LCol J.A. Summerfield and Mr M.K. Ormrod, ORD Report R 2003/01 *Main Contingency Force Brigade Group Combat Capabilities Study* (BRONZE ZIZKA) (Ottawa: Canadian Government Publications, 2003).

39. One artillery battalion, primarily for counter-battery work, an MLRS rocket launcher battery to lay scatterable mines, 4-8 A-10 strike aircraft and intelligence reports from higher allied assets on fresh enemy forces that came within 17-25 kilometres of the MCF brigade group's forward line of troops.

40. See BRONZE ZIZKA Report, p. 27.

41. Ibid., Tables V and XIV and p. 47 and 79.

42. Ibid., p. 96 and 97.

43. See the author's "Manoeuvrist Operations: Some Thoughts on Whether We Have Got it Right," *The Army Doctrine and Training Bulletin* 3, 4/4, 1 (Winter 2000/Spring 2001), pp. 50-53.

44. See Elinor C. Sloan, *The Revolution in Military Affairs—Implications for Canada and NATO* (Montreal and Kingston: McGill-Queen's University Press, 2002) for a discussion of how different NATO countries are pursuing RMA.

45. Briefing on US Army operational research in support of the Future Combat System at the Janus Users' Fair, White Sands, New Mexico, March 2002.

46. See *Arabs at War,* p. 246, 247 and 266.

47. See Anthony Davis, "How the Afghan War was Won," *Jane's Intelligence Review*, February 2002, pp. 6-13.

48. For an example of a fundamental policy basis changing, one has only to consider the Australian Defence Forces' experience. For over 20 years it was driven by a defence of Australia mission. The Australian government now needs the ability to deploy expeditionary forces. See Ian Bostock, "Expeditionary Objectives," *Jane's International Defense Review*, February 2003, pp. 28-34.

49. *Canada's Army: We Stand on Guard For Thee*, p. 101.

50. See BRONZE ZIZKA Report, p. 35, 37, 50, 63, 74, 84 and 97.

51. Captain Senft's article, "Leopards in Kosovo: The Solution for an Armoured Combat Vehicle?" *The Army Doctrine and Training Bulletin* 3, 1 (Spring 2000), provides a very informative and interesting description of the utility of vehicles like the Leopard C1 in OOTW missions. It should give pause to those who argue that such vehicles have no role in this type of mission.

52. See IRON NOBLE Report, p. 12, 13, 90-95 and 97.

53. For some supporting discussion on this topic, see BRONZE ZIZKA Report, p. 95, and Major M. Lavallée and Mr J. Offiong, ORD Project Report (forthcoming draft) PR 2003/??, *Evaluation of Options for the Land Force Battalion Level Indirect Fire System* (BLIFS) (IRON ESTOC) (Ottawa: Canadian Government Publications, 2003).

54. In writing about the 1982 Falklands War, Anthony Cordesman, in speaking of the value of signals intelligence, makes the point that "There is limited value in intercepting communications in a country whose leadership and commanders are so politicized that they fail to communicate honestly and objectively. Much of the information Argentine officers communicated consisted of misinformation or outright lies." Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War Volume III: The Afghan and Falklands Conflicts* (Boulder and San Francisco: Westview Press, 1990), p. 272 and 274.

55. See BRONZE ZIZKA Report, p. 35 and 36, for a discussion of the effect of having relatively few, high performance ISTAR systems that suffer losses.

56. See Mr M.K. Ormrod, Mr P.R.S. Bender and Major P. Hewitt, ORD Report PR 2001/16 *IRON XINETE: Land Force Battle Group Mobility Support Study* (Ottawa: Canadian Government Publications, 2001).

57. See BRONZE ZIZKA Report, p. 69.

58. See *The Army Strategy,* p. 11.

Major L.R. Mader, CD

BOOK REVIEWS

A Military Culture at War with Itself

The Mission: Waging War and Keeping Peace with America's Military

by Dana Priest (New York: W.W. Norton & Company, 2003), 429 pages.

Reviewed by Colonel Mike Capstick

This journalistic account of recent American military operations is a must read for anyone who needs to understand the fundamental beliefs, attitudes and culture in today's US Army. Dana Priest, an experienced *Washington Post* reporter, has tried to capture the essence of a "new American way of war" by describing the strategic objectives of the regional combatant commanders (known until recently as the "CinCs") and then demonstrating how these objectives are pursued by combat soldiers on the ground. Her basic theme is that the commanders have become powers unto themselves, and that their ability to influence US foreign and security policy presents an important threat to the most basic ideas of civil control of the military.

Although her subjects are all retired—General Zinni, Central Command, General Clark, SACEUR and Admiral Blair, Pacific Command—they will be familiar to most readers. Priest is highly critical of the policy of engagement that all of them advocated throughout the 1990s, and she is convinced that, in many cases, the policy was immoral and provided support to foreign militaries that was not in the best interests of the United States. Perhaps she makes her best case by adducing the example of Admiral Blair's insistence on maintaining military-to-military contacts with the Indonesian Armed Forces in spite of gross human rights violations in East Timor.

Unfortunately, like most journalists, the author tends to the sensational. Her descriptions of the traveling styles, entourages, communications and security arrangements of the generals and admirals are intended to convey the message that these officers are more like the proconsuls of ancient Rome in terms of power and influence than the traditional military commanders of a modern democracy. As colorful as her descriptions are, her "gotcha" tone is more appropriate to tabloid journalism than it is to serious analysis. In other words, her attempt at serious strategic criticism seldom goes beyond the superficial. Of more interest to the Canadian soldiers who have served in coalitions with the Americans—and who will probably do so more often in the future—is her descriptions of tactical level operations in support of the commanders' strategic objectives. Here Priest's journalistic talents come to the fore. She provides the reader with a compelling portrait of the challenges that soldiers face on daily basis in places like Kosovo, Afghanistan and Latin America. The essence of her argument is that combat soldiers are the wrong instrument to use in rebuilding fractured societies simply because the cultures of the war-fighter and the nation-builder are incompatible. Again, in this instance her analysis is facile, superficial and unsupported by the historical record. That said, Priest's conclusions accurately reflect the professional identity that is predominant within the ranks of the American Army. It's a professional identity supported by declarations like the now famous statement made by National Security Adviser Condaleeza Rice that "…the 82nd Airborne Division should not be escorting kids to kindergarten in Kosovo." It's also the professional identity that has contributed to the idea that force protection is more important than mission accomplishment in places like Bosnia and Kosovo. Understanding this identity and its implications is crucial for commanders and leaders assigned to work with American forces on operations because, in the final analysis, inter-operability is usually more of a cultural challenge than it is a technical or tactical one.

Priest is best reporting (instead of analysing!), and her chapters covering the experience of the 3rd Battalion, 504th Parachute Infantry Regiment, 82nd Airborne Division in Kosovo are excellent. The unit's command climate and performance came under scrutiny after one of its soldiers was arrested for the rape and murder of a local child. Priest's narrative, based on extensive interviews and an official investigation, depicts a unit that routinely violated command policies, abused detainees and failed to control its dispersed elements. She concludes that the unit "got into trouble" because they were war-fighters thrust into the wrong role—a conclusion not

necessarily fully supported by the evidence. Despite this weakness, Priest's story-telling skills make this part of the book a valuable case study of the leadership and ethical challenges that all leaders face in today's modern battle-space. These chapters, in fact, represent the real value of the book and should be read by all army leaders.

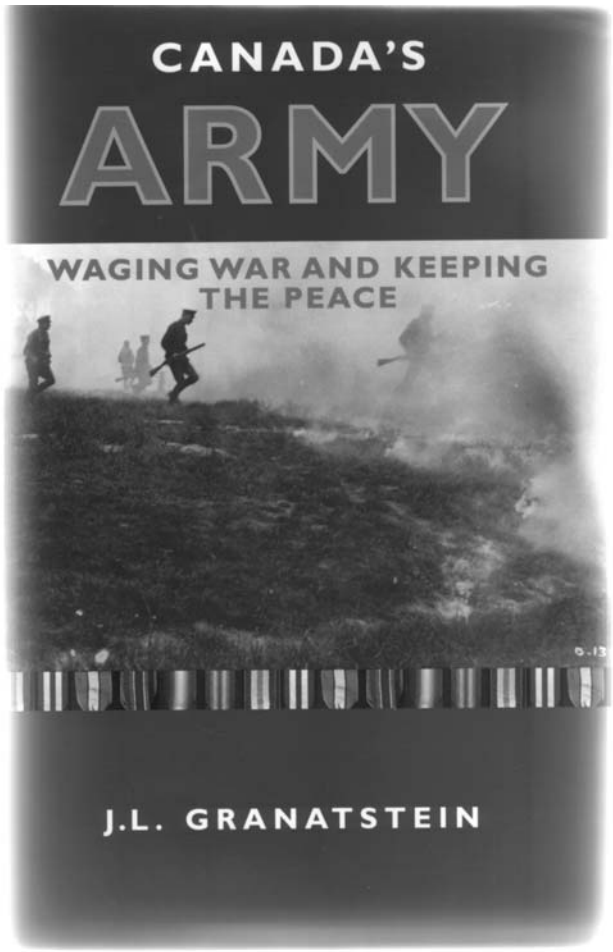
Although flawed, *The Mission* is important for a number of reasons. In the first place, Priest is a high-profile journalist, and her book can only reinforce the preconceptions of those who believe that the warrior ethos is incompatible with peace support missions. Although this is, in my opinion, a terribly wrong-headed view, it is important that Canadian Army leaders understand it and recognize its influence within the US Army and its impact on the conduct of coalition operations. More importantly, the chapters that describe how soldiers really do their jobs on the ground are rich in leadership lessons and highlight the dangers inherent in letting military culture (how things are done) diverge from the military ethos (how things should be done). Canadian soldiers will recognize many of the frustrations expressed by the American soldiers quoted in this book, and many will even agree with them. Many will find parallels with our own experience in Somalia and the Balkans. The leadership challenge, especially at the unit level, is to make sure that the frustrations do not jeopardize mission accomplishment or, even worse, result in major ethical failures that put individual soldiers, NCOs and officers at risk. For this reason, *The Mission* is worth reading. Furthermore, it should be on the shelves in military libraries and unit reading rooms and used as a source of leadership and military ethics case studies.

Colonel Mike Capstick is the Director of Land Personnel Strategy with the Land Staff at Land Force Command Headquarters in Ottawa.

Canada's Army: Waging War and Keeping the Peace

by J.L. Granatstein (Toronto: University of Toronto Press, 2002), 519 pages, maps, illustrations, index, $59.95.

Review Essay by Donald E. Graves



Written by one of Canada's most prominent military historians, Canada's Army is described on its jacket as the "full" history of the Canadian army from its origins in New France to the modern era of "peacekeeping and peacemaking." The book comes well recommended—the former commander of Mobile Command feels Canada's Army "belongs on all concerned citizens' bookshelves"; military historian David Bercuson is definite that it "will become the standard by which other histories of Canada's army will be measured for many years to come," a sentiment echoed by naval historian Marc Milner, who adds that the book is a "must-read for all Canadians who ever wonder about our role in the world." Unfortunately, I cannot agree with these sentiments.

The author informs us (p. xi) that his purpose is to provide "an extended argument for military professionalism" in a nation where, too often, governments have "underfunded the professional military and relied on the militia, the ordinary citizenry in arms." It is Granatstein's belief, as stated in the first sentence (p. 3) of *Canada's Army*, that the "central myth in the history of Canadian arms is, and always has been, that the colonists and citizens provide their own defence," and, as a result,

citizen soldiers with minimal training are preferred to professionals. In English Canada, the author traces the origins of this myth back to Dr. John Strachan, the early 19th century bishop of Upper Canada (Ontario) who lauded the efforts of the provincial militia in repelling American invasion during the War of 1812. He is less definite about its origins in French Canada but assures us (p.5) that the "idea that Canada's defence had been provided primarily by the local militias was taken as a given by both Canadiens and Canadians." Granatstein therefore anchors his central thesis in the pre-Confederation period, although he cautions us (p. xi) that his examination of Canada's army "moves quickly through the seventeenth, eighteenth, and nineteenth centuries" as that army "scarcely existed before the dawn of the twentieth century."

I am not at all convinced by the author's assertion that a preference for militia over regular soldiers has always been the "central myth in the history of Canadian arms," particularly in the pre-Confederation period. This statement rings more true from 1867 to 1939, and I believe the marked bias in favour of a militia against a regular military establishment was based primarily on financial considerations—militia are cheaper than regulars, and if there is one theme central to the history of Canada's defence policy since Confederation, it is that its governments have been reluctant in times of peace to spend a single cent more on the army than absolutely necessary, particularly if they could shelter behind the skirts of Britain or the United States, as indeed they have been doing for much of this nation's history.

Contrary to Granatstein's claim, it was regular troops, raised either in Europe or North America, that were the backbone of the defence establishment of the pre-Confederation British and French North American colonies. The first regulars to appear in what later became Canada were mercenary troops hired by the French trading companies granted North American territory by the French crown. Few in number and not very effective, they were replaced in 1665 by the Carignan-Salières Regiment, a regular unit of the French army. In 1683, the first Compagnies franches de la Marine (independent companies of the Ministry of Marine) arrived and, until 1755, these troupes de la marine, whose enlisted personnel were recruited in Europe but whose officers were Canadiens, were the military mainstay of New France. The *troupes de la marine*, which have justly been described as "the origin of the regular Canadian armed forces," unfortunately do not receive a single mention in *Canada's Army*.[1] Faced with the threat of the much larger population of the English colonies on the Atlantic seaboard, the military leaders of New France defended the colony by adopting, as Granatstein points out, elements of aboriginal warfare and succeeded in keeping their opponents off balance by raiding English frontier settlements with small, mobile detachments of *troupes de la marine*, young and active militia volunteers and allied aboriginal warriors. The contribution of the militia to these forces was important but it cannot be stressed enough that they were led by regular *Canadien* officers of the *troupes de la marine*.

Far from it being a militia composed of "*habitants*, from teenagers to greybeards" who "rallied to their elected captains to fend off marauding Indians and incursions from the hated Americans or English," as the author states (p. 3), the successful defence of New France to 1755 was based on an effective military establishment composed of three distinct components: regulars, militia and their aboriginal allies. French North America only survived because of this establishment, whose social and economic significance was so strong that one leading scholar of the colony's history has concluded that New France was imbued with a military ethos.[2]

The adoption of aboriginal tactics by European armies campaigning in North America can, however, be overemphasized. The major operations during the colonial wars waged between France and Britain from the late 17th century to the mid-18th century were conducted along European lines as the 1690 and 1711 attacks on Quebec and the 1745 siege of Louisbourg demonstrate. With the commencement of the Seven Years' War in 1755 and the arrival of significant numbers of British regulars and French *troupes de terre* (units of the French army as opposed to the Ministry of Marine), the nature of North American warfare underwent a change. Early French victories in this conflict such as that at the Monongahela were gained by traditional raiding and ambush tactics, but by 1758, as Granatstein points out, warfare in North America had irrevocably changed.[3] The author notes that at the battle of the Plains of Abraham in 1759, the *Canadien* militia did not perform particularly well when deployed as regular infantry. This is true, but, with proper training and good leadership, they were able to successfully fight in open battle against British regulars the following spring when, on almost on the same ground, Lévis defeated the British garrison of Quebec at the misnamed battle of Ste. Foy, fought 28 April 1760.[4]

The point, however, is not whether the *Canadien* militia performed better in one battle or another, it is that the militia of New France were regarded neither by its leaders nor its people as being the primary defenders of the colony. The militia was an

integral and important part of New France's military establishment but only as an auxiliary to regular forces, European or local. With some modifications, a similar organization prevailed during the British period, and, from 1763 to 1812, the defence establishment of most British colonies in North America consisted of British regular troops, colonial regular units and, finally, the militia. These colonial regular units were raised, with a bewildering variety of titles, from 1764 to the outbreak of war in 1812, usually in periods of international tension with France or the United States.[5] The militia were always regarded as an auxiliary force, a numerous one to be sure, but still an auxiliary.

That brings us to 1812 and Dr. John Strachan, the man Granatstein believes primarily responsible for the creation of the myth that the militia have always been the backbone of the defence of Canada. Granatstein is fascinated by this Church of England cleric whom he quotes several times as though Strachan was the foremost Canadian military commentator of his time and a man with direct access to the highest military councils. In fact, most of the Strachan documents quoted by the author are private communications written to other civilians and only express the thoughts of one person, admittedly an influential one, but not one as influential as the author tends to believe. Careful reading of the documents on which Granatstein bases his premise reveal that Strachan's comments were limited in time and subject.[6] Strachan's complaints about the apparently half-hearted defence of Upper Canada by British military commanders in 1812 and 1813 were shared by others in the province, but they cannot be taken, as the author takes them, as being a case that John Strachan is the "main creator" (p. 4) of the "central myth in Canadian arms."

This is certainly true of the oft-quoted sermon delivered by Strachan on 22 November 1812, in which the cleric claimed that "the Province of Upper Canada, without the assistance of men or arms, except a handful of regular troops, repelled its invaders, slew or took them all prisoners, and captured from its enemies the greater part of the arms by which it was defended."[7] This statement needs to be put in proper context. This sermon was printed as an appendix to the *Report of the Loyal and Patriotic Society of Upper Canada*, published in 1817. The Loyal and Patriotic Society was a charitable organization created by Strachan and other prominent citizens to raise funds and provide financial and other assistance for the widows and families of militiamen who died on active service or civilians who had suffered grievous property losses because of the war. Not unnaturally, given the Society's aims, Strachan's sermon praising the efforts of the Upper Canadian militia at the siege of Detroit in August 1812 and the battle of Queenston Heights in October of that same year was included in its report. The point should be emphasized that this sermon, delivered just five months after the war had begun, was very specific—it did not extol the virtues of militia over regulars, and it lauded the services of the Canadian militia only in the opening campaigns of the war.

Strachan's sermon, however, was used by other 19th century historians of Upper Canada who, for their own purposes, wished to extol the heroism of the province's population and what they perceived as being its Anglo-Saxon virtue of loyalty while downplaying the dark side of Upper Canadian history during the War of 1812. And this dark side was the fact that three sitting or former members of the provincial legislature led a unit of Canadians serving in the invading American army; that a sizeable segment of the civilian population was either neutral or pro-American; and that, on some occasions (notably in the period immediately following the occupation of the provincial capital of York in the spring of 1813), the Upper Canada militia showed themselves reluctant to serve. But whether Strachan's sermon or his other wartime writings were, as Granatstein states (p. 5), the origin of a national Canadian myth that "if the country boasted a militia of proven bravery, there was no need for a standing army with high-caste officers, tremendous expenses, and potential danger towards the state" is quite another matter. Certainly, by the late 19th and early 20th century, the historian Ernest A. Cruickshank had demonstrated beyond doubt that the successful defence of Upper Canada in 1812–1814 was due largely to the efforts of regular soldiers, British *and* Canadian, although it was not until the 1950s that C.P. Stacey effectively demolished what he called "The Militia Legend of 1812" in a seminal article.[8] Stacey, a very careful scholar, delineated this legend or myth and restricted it only to the events of 1812–1814 in Upper Canada and did not claim, as Granatstein has, an influence for it far beyond what it actually had.[9]

Before leaving the ever-fascinating subject of the War of 1812, some attempt should be made to clarify the term "militia" as it was known and used in the pre-Confederation era. The word is very misleading as it can mean different things to different people at different times. To the author, at least in that part of *Canada's Army* concerned with the pre-Confederation period, it

appears to mean the "civilian-in-arms," so charmingly portrayed by the artist C.W. Jefferies in his drawings of the annual militia muster in some 19th century village, complete with a farm yokel clutching a pitchfork and overweight shopkeeper brandishing an umbrella drilling with fumble feet under the stern gaze of an octogenarian sergeant clad in a uniform four decades too old and three sizes too small. During the War of 1812, such an image applies most accurately to what Granatstein (and I have to agree with him) calls "that delightful phrase"—the sedentary militia—which was basically a feudal levy of all males of military age. There were, however, other types of "militia" raised in 1812–1814 which were by no means so comical nor so inefficient, and it is unfortunate (as well as confusing) that their titles include the word "militia" because these units—armed, equipped, uniformed and trained and commanded by British or Canadian professional officers, serving for long periods or for the duration of the war—were much closer to being regular soldiers than the "classic" (and comic) sedentary militia depicted by Jefferies.

The defence of British North America between 1812 and 1814 was carried out by six distinct types of military units: regular units of the British army (including the largely Canadian 104th Foot); fencible units, or regular British units raised in North America for service only on that continent; units of "provincial regulars" (notably the *Voltigeurs Canadiens* and the unfortunately-titled Incorporated Battalion of Upper Canada), which served for the duration of the war[10]; uniformed and trained militia units, notably the Select Embodied regiments of Lower Canada (Quebec) serving for periods six months and longer; volunteer militia units which served for short periods; and, finally, the "classic" or sedentary militia which served for very short periods. It should be noted that all but the British regular units were composed entirely of Canadians (or *Canadiens*), defined in those days as British subjects born in that nation's North American colonies.[11] The sedentary militia was, therefore, only one component of the forces defending the Canadas during the War of 1812. Granatstein does not seem to understand this admittedly-complex organization, otherwise he would not have written (p. 11) that, at the 1813 battle of Chateauguay, Lieutenant-Colonel Charles de Salaberry "had the usual ragtag *milice* under his command" plus the *Voltigeurs Canadiens*. In fact, of the 1700 *Canadien* soldiers present at that action, about 1200 were members of either the fencibles, *Voltigeurs* or Select Embodied Militia and were thus regulars or very near regulars, and they forced an American division twice their strength to retreat—not bad for "ragtag *milice*," most of whom were fighting their first battle.[12]

With all this in view, it is unfortunate that the author has anchored his central theme ("that colonists and citizens provide their own defence") in the pre-Confederation period. It is my belief that, no matter what boasting Canadian families did in later years about the feats performed by Uncle John or *mon oncle* Jean in the War of 1812, the bias shown by colonial legislatures and, after Confederation, by the new Canadian federal government toward a militia as opposed to a regular military establishment resulted more from financial considerations than any other factor. In June 1862, in the middle of the international tension that arose from the Trent affair, the *Toronto Globe* rejected the very idea that Canadians should take a greater share of the financial burden of defending their own territory: "We cannot agree to the dogma that Canada should provide entirely for her defence when she is not the author of the quarrels against the consequences of which she is called to stand upon her guard."[13] That same year a British official, the lieutenant-governor of Prince Edward Island, found this attitude "embarrassing" as the "burthen of this song is the same that reaches us from so many quarters in North America," and that was that the inhabitants of Canada "say that they are generally willing to give their personal service, but not to spend local funds, either private or public."[14] In 1864 the senior British commander in North America summed up the prevailing attitude of Canadians toward their own defence: "they seem to look upon their coming dangers with the eye of a child, under the protection of a Parent who is bound to fight, whilst they pursue their ordinary business, or agitate themselves by fruitless party politics and parliamentary conflicts."[15] Sentiments like these have a depressingly familiar ring—particularly in view of recent events in the spring of 2003.

Canada's Army reads much better once the author gets to the post-Confederation period because Granatstein is now clearly on familiar ground. The survey of military operations which occurred in this period is basically sound, and Granatstein skillfully dissects the origins of Canadian defence policies and carefully analyzes the effect they had on Canadian soldiers in battle. In doing so, he more than proves his point that naive, if not idiotic, government decisions have only too often resulted in needless casualties (or, to paraphrase Clemenceau, "war is too important a matter to be left to politicians," particularly Canadian politicians). I don't always agree

with the author's analysis of actual operations, his interpretation of their results or his assessment of military leaders (particularly Simonds), but these are matters of opinion. This is sound survey history, and what is starkly compelling in the chapters devoted to this period is the quantum difference in calibre and capability between the Canadian Expeditionary Force of 1918 and the Canadian army of the Second World War, but Granatstein provides a lucid explanation why that was so. The chapter devoted to the professional army of 1945 to 1968, of which the author was a member, is particularly rewarding and informative.

This being the case, it is doubly depressing to read the sad saga of the last three decades, which witnessed the demise of this fine service (because, as its official historian, C.P. Stacey, once remarked, "the rats got at it"). Granatstein's handling of this most distressing part of the history of the Canadian army (sorry, Mobile Command) is succinct, balanced and assisted by the fact that he played an advisory role in some of the developments he describes and personally knows many of the prominent figures. When discussing the defence policies of successive governments, many of which were foolish at best and tragic at worst, the author displays commendable restraint but does not hesitate to levy blame if he feels it is due, and I doubt that, if given the same task, I would be able to exhibit similar restraint, particularly concerning the policies of the various Liberal governments since 1968. When reading over what really is a nearly unmitigated tale of woe, one is struck by the fact that the period 1968-2003 can justly be termed the "Age of Jargon, Abbreviations and Acronyms" as all the major ones are present on parade in the text, standing at attention and ready to assault the eye: CANBAT, CANUS, CAST, CMBG, COTC, CREW, FLU, FLQ, GPS, ICSS, JTF-2, LAV, LFRR, MBA, MRB, MRE, ONUCA, OOTW, PSO, PTSD, RMA, SABRE, SCRR, SFOR, SHARP, SHIRBRIG, SWINTER, TAT, TCCCS, UNDPO, UNEF, UNFICYP, UNIIMOG, UNIKOM, UNITAF, UNMEE, UNOSOM, UNPROFOR, and so on, and so on. This is very recent history, if not current events, and will be only too familiar to most readers of this periodical. I therefore do not propose to discuss it at length but simply say that Granatstein's treatment of a most troublesome time is well informed and very sound, making this chapter an extremely useful one.

Unfortunately, There are some other problems with this book. *Canada's Army* is largely based not on original primary sources but on secondary published material. It appears to me that the author's dependence on the work of others has led him into error because this book contains many (far too many) errors of fact and interpretation, particularly in those passages concerned with the operational and tactical levels of war. While many of these errors might be thought minor, if not picayune, it is important when writing about wars and those who fight them—particularly at the operational and tactical levels—to get the details right because at these levels details become absolutely crucial. The errors I found (which I have listed in a note[16]) only concern subjects about which I have some small knowledge (19th century Canadian military history and Canadian land operations in the latter years of the Second World War), but their number, however, does not speak well for the accuracy of the author's treatment of other periods and subjects.

A second problem—and here I am fully aware that the ultimate fault may be that of the publisher and not the author—is the lack of adequate maps. It is difficult to follow the sometimes detailed descriptions of military operations in the text (notably those concerning the 1885 Rebellion, the 1900 battle of Paardeberg and the 1943 operations in Sicily and at Ortona) using the maps in *Canada's Army*, which appear to be rather poor copies of originals taken from the official histories. To fully comprehend Granatstein's discussion of these operations, the reader is forced to consult other books, which is, frankly, rather annoying. Good maps are an essential component in any book that analyzes military operations, and for the price the University of Toronto Press is asking for *Canada's Army*—$59.95—that publisher has badly served both its author and his readers.

Despite its weaknesses, *Canada's Army* is a positive contribution to the growing body of literature on the military forces of this nation, but I do not agree that, as one outside reader asserts, it sets "the standard by which other histories of Canada's army will be measured for many years to come." As I have discussed at length, the book's major fault lies in the author's treatment of pre-Confederation era and, in this regard, the interested reader is better directed to G.F.G. Stanley's older survey history, *Canada's Soldiers*, and René Chartrand's more recent *Canadian Military Heritage* as well as some of the titles cited in the notes to this review. This fault, however, is partly balanced by *Canada's Army* major attribute—its survey of Canadian defence policies and land operations in the post-1867 era—which render it of service for both professional and general readers alike.

Donald E. Graves, an Ottawa-based heritage consultant, is a life-long student of the Canadian military and the author, co-author or editor of a number of works on 19th and 20th century military history, including A Glossary of French-English Military Terminology, 1675–1815*;* The Rockets' Red Glare: Sir William Congreve and his weapon system*;* Soldiers of 1814: American Enlisted Men's Memoirs of the Niagara Campaign; 1885*! T*he Halifax Volunteer Battalion in the Northwest Rebellion *and (with W.J. McAndrew and M.J. Whitby)* Normandy 1944: The Canadian Summer. *One of his current research projects is a study of Canadian soldiers' songs from 1600 to 1945.*

ENDNOTES

1. René Chartrand, *Canadian Military Heritage*, Vol 1, 1000-1754 (Ottawa, 1993), p. 83. This important work is conspicuous in its absence from the bibliography of *Canada's Army*.

2. See William J. Eccles, "Social, Economic and Political Significance of the Military Establishment of New France," *Canadian Historical Review*, 60 (1971). This seminal work, and others by the same author, are also conspicuous by their absence from the bibliography of *Canada's Army*.

3. Whether, as the author claims, Montcalm's best tactic at Quebec in 1759 would have been "to remain within the walls of Quebec, avoid a pitched battle, use New France's Indian allies to the fullest extent, fight with surprise, and simply outlast Wolfe" (p. 9) is debatable, in view of the fact that the British commander was in a position to cut off the city's supply lines, and the inhabitants and the garrison were verging on starvation. Montcalm had the choice of abandoning Quebec or coming out in the open to fight for it (the city's land fortifications on its western side not being strong enough to withstand a formal siege). He opted to emerge and attack but, even so, he might have made a better job of it.

When discussing the siege of Quebec in 1759, historians often give perhaps too much attention to Wolfe's army and the battle of 13 September 1759. The fact is that New France, with a population of about 63,000 souls, was overwhelmed by the size of the British attacking force which, by my calculations, consisted of 49 warships (a quarter of the Royal Navy), 140 merchant vessels and 24,759 soldiers, sailors, marines and merchant seamen. The attacking force had 1871 guns on board its warships and brought 163 pieces of land artillery. The defenders of Quebec consisted of just under 21,000 regulars, militia, sailors and aboriginal allies armed with about 300 pieces of artillery. There were at least 12,000 militia in the defending force, which would have been almost every man of military age in New France. It is with some justification that a Canadian military historian pointed out to me, while discussing these figures, that New France had as much chance in 1759 as Iraq did in 1991.

On the opposing forces at Quebec, see C.P. Stacey, *Quebec 1759: The Siege and the Battle*, edited and with new material by Donald E. Graves (Toronto, 2002).

4. The best examination of the training and deployment of the militia of New France in the 1760 campaign is Martin Nicolai, "A Different Kind of Courage: The French Military and the Canadian Irregular Soldiers during the Seven Years' War," *Canadian Historical Review*, 70, (March 1989), pp. 53-75. This excellent study is not included in the bibliography of *Canada's Army*.

5. These units include the Canadian Volunteers Battalion raised in Quebec in 1764 for the Pontiac Rebellion and the Royal Highland Emigrants, Royal Fencible Americans and Loyal Nova Scotian Volunteers raised in 1776. Between 1793 and 1802, the Queen's Rangers, the Royal Nova Scotia Regiment, King's New Brunswick Regiment, Volunteers of the Island of St. John and the Royal Canadian Volunteers were raised but all were disbanded at the conclusion of the Peace of Amiens. Between 1802 and 1812, six fencible regiments (regular units of the British army but required to serve only in North America) were raised: the Royal Newfoundland, Nova Scotia, New Brunswick and Canadian Fencibles appeared between 1802 and 1809. In 1809 the New Brunswick Fencibles volunteered for general service (service outside North America) and were re-designated the 104th Regiment of Foot. This unit was replaced by a newly-raised New Brunswick Fencibles. Finally, as war threatened in 1812, the Glengarry Light Infantry Fencibles were raised.

6. Because Strachan is central to Granatstein's thesis that "the central myth in the history of Canadian arms is, and always has been, that the colonies and citizens provide their own defence," it is important to examine the author's handling of the evidence related to this figure, a man he believes was the "main creator" of the militia myth. Granatstein quotes (pp. 4-5) from five documents written by Strachan dated 1812-1814, which he states are to be found in Carl Benn, Historic Fort York, 1793-1993 (Toronto, 1993), pp. 93, 115 or in J.L. Henderson, *John Strachan: Documents and Opinions* (Toronto, 1969), p. 32ff. I could not find any quotes by Strachan on the given pages in Historic Fort York but I did find four of the quotes used by Granatstein in Henderson's work while the fifth was in another source, but that problem may result from failing eyesight rather than any error on the part of the author. All of these quotes, however, should be placed in proper context.

The first quote (Henderson, 38) relates to Strachan's opinion of the British commander in North America, Lieutenant General Sir George Prevost, whom Strachan believes "abandoned the Loyalists [of Upper Canada] to be bound hand and foot to their fate." The author appears to link this criticism to the fact that Strachan lived in York (modern Toronto), a town "twice taken by the invaders" during the War of 1812. This quote is actually from a letter written by Strachan to Montreal businessman James McGill in November 1812 five months before York first fell, and, although it is critical of Prevost's policies during the first months of the war, it is also clear that Strachan was an admirer of the recently-deceased Major General Isaac Brock, whom he compares very favourably with Prevost. Strachan surmises that Prevost may have "acted by virtue of express orders from home." In fact, Prevost was under instructions from the British government not to engage in offensive operations as they hoped to bring about a quick diplomatic solution to the war. In this case, much of Strachan's criticism of Prevost is groundless because Strachan simply did not know enough to be a credible critic of Prevost and the government's policy.

The second quote relates to Strachan's belief that Prevost's conduct of operations during the war was governed by "imbecility." Granatstein does not give a clear reference as to the document in which this word appears, but I did find it in a letter written by Strachan to James Brown on 30 October 1813 (Henderson, 47) in which Strachan, in making direct reference to the British attack on Sacket's Harbor, NY on 29 May 1813, states that it failed "on account of the imbecility of the Commander of the Forces [Prevost]." Although clearly John Strachan was no fan of Sir George Prevost, in this case he is referring to a specific instance—the abortive attack on Sacket's Harbor—and not Prevost's overall conduct of the war as Granatstein implies. Prevost's behaviour during that abortive operation (which I would say was governed by hesitancy rather than imbecility) has been the subject of considerable debate, but any historian who has read the man's official correspondence would not term him an imbecile. Again, this is basically Strachan's personal opinion expressed, again, in a private letter to another civilian.

The third quote which Granatstein believes is Strachan's opinion of Lieutenant General Gordon Drummond, the commander in Upper Canada from December 1813 to January 1815, is contained in a letter (Henderson, 50) dated 1 January 1814 from Strachan to Sir Francis Gore, the pre-war lieutenant governor of Upper Canada. In it Strachan states that our "General in Chief is destitute of that military fire and vigour of decision, which the principal commander in this country must possess in order to preserve it at any moderate expense." A careful reading of the letter reveals that in a previous

passage, Strachan differentiated between Drummond's offensive attitude, which had just resulted in the capture of Fort Niagara, and the "General in Chief" who had pursued a "system of forbearance." The context makes it clear that Strachan is referring to Prevost when he speaks of an officer lacking "military fire and vigour of decision," not Drummond, whom the bishop admired. But again, it should be stressed that this is only one man's private opinion.

The fourth quote, which Granatstein states is in an "open letter" by Strachan and his supporters is said to contain the prescription that what is needed is "A new commander and more troops." I could not find this in Henderson, where Granatstein states it is located, but I did find a very similar phrase in a letter written on 8 May 1813 by three officers of the York militia and a fourth individual to an unknown addressee, which was published in E.A. Cruickshank's *Documentary History of the Campaign on the Niagara Frontier in the Year 1813. Part I* (1813) (Welland, 1902), pp. 192-202. Strachan's name, along with that of two other men appear at the end of the letter but in the position normally reserved for the addressee/s in early 19th century documents. An inspection of the original (which is probably to be found in the either the Archives of Ontario or the National Archives of Canada) might possibly solve the question of whether it was signed by Strachan or addressed to him. I do believe, however, that Strachan had some hand in writing it as it contains a number of phrases that appear in his other wartime correspondence. In any case, the letter is a report on the American capture of York in April 1813 and a lengthy complaint about the conduct of Major General Sir Roger Hale Sheaffe before and during that action. It includes the sentiment that, "Without a new commander and more troops this Province must soon be overpowered; the whole force of the enemy is directed towards it, and unless the most strenuous exertions are made he will be successful," and I think this is the document referred to by Granatstein. The problem is that it is by no means an "open letter" as Granatstein would have it but a private communication addressed to one individual (I suspect Sir Francis Gore, who was at that time in Britain) which refers to a specific British commander, Sheaffe, for a specific period, October 1812 to April 1813.

The fifth quote, that only "the astonishing exertions of the militia" saved the province of Upper Canada, which Granatstein believes refers to the campaigns of 1814, is found in Henderson (51) in a letter written by Strachan to Dugald Stewart in the "winter of 1814." A careful reading of the letter, however, reveals that Strachan is actually referring to the opening campaigns of the war when he writes that: "Soon after the declaration of the war by the United States, their whole military force was directed against this province, of which they expected to make a rapid and easy conquest. And with reason, for there was little more than one regiment in Upper Canada and all would have been lost but for the astonishing exertions of the militia." This is clearly a reference to 1812 and, if further confirmation is required, it will be found in the next sentence: "Their [the militia] services have been continued for the last two campaigns [i.e., years] to a much greater degree than could have been anticipated." Again, this is private communication to another civilian, and it is specific in terms of time—the first year of the war. It is also worth noting that Strachan is complaining about the lack of regular forces in the province at the outbreak of war, not just trumpeting the praises of the militia.

Taken as a whole, the five pieces of evidence on which Granatstein bases much of his contention that John Strachan was the creator and developer of the militia myth and the sermon (discussed in the text of this review) reveal after careful reading that Strachan was not so much singing the praises of the militia as he was criticizing Sir George Prevost's conduct of the war. A major component of that criticism is that the militia were called out in the first year of the war because of the lack of regular units in the province, a deployment that Strachan blames squarely on Prevost. It is worth emphasizing again that all five documents were private communications written by a civilian (or civilians) to other civilians. These documents cannot be regarded as prima facie case that John Strachan was the progenitor of the militia myth.

7. An exhortation pronounced after the sermon ... York, 22 November 1812 in *Report of the Loyal and Patriotic Society of Upper Canada* (Montreal, 1817), appendix.

8. C.P. Stacey, "The War of 1812 in Canadian History," *Ontario History*, 50 (1958), pp. 153-159.

9. Concerning the matter of John Strachan and the origin of the militia myth, Granatstein is aware of the quality of J.M. Hitsman's fine book, T*he Incredible War of 1812*, but he might have done well to consult the revised edition brought out in 1999 as my introduction addresses the origin and development of the "militia myth" in 19th century English Canada.

10. As these units were raised by the authority of the provincial legislatures of Lower or Upper Canada, I have always used the phrase, "provincial regulars" to refer to them and to distinguish them from the fencible units—regular units of the British army raised in Canada.

11. The word "Canadians" at this period was used for French-Canadians.

12. See my *Field of Glory: The Battle of Chrysler's Farm, 1813* (Toronto, 1999), Appendix C. It is worth noting that one of the sedentary or "classic" militia companies that fought in this action broke when it first received fire, reformed and then put in a bayonet charge with a company of Select Embodied Militia against an American brigade. They were beaten off but the American brigade shortly thereafter fell into confusion.

13. Quoted in J.M. Hitsman, *Safeguarding Canada*, 1763-1871 (Toronto, 1968), p. 176.

14. Quoted in Hitsman, *Safeguarding Canada*, p. 177.

15. Quoted in Hitsman, *Safeguarding Canada*, p. 187.

16. The author refers (pp. 8, 10) to the use of rifles in military service during the French period and the War of 1812 when, properly, he means smooth-bore muskets. There is a major difference between the two weapons. Military rifles were used during the 18th and early 19th century but not in large numbers and certainly not in large numbers on North American battlefields.

When discussing the battle of Chateauguay fought on 26 October 1813, the author makes reference (p. 11) "to the militia force of about three hundred that did most of the fighting." In fact, the force most heavily engaged during that action consisted of, by my calculations, 408 men, and most were not militia in the classic sense of being hastily mustered civilians, they were actually regular or semi-regular troops. The greater part, 182 soldiers, were drawn from the Canadian Fencibles, a unit of the British army, or the Voltigeurs Canadiens, a provincial regular unit. There were two companies, with 129 total, from the Select Embodied Militia, but these troops—uniformed, armed, equipped and trained as regulars—were far from being "classic" militia. There were indeed 75 members of the local sedentary or "classic" militia, and they fought very well during the engagement, but there were also 22 aboriginal warriors from the Abenaki and Nipissing nations. In effect, more than three quarters of the soldiers who saw the heaviest fighting at Chateauguay could be classified as regulars of one sort or another. For an analysis of the composition of de Salaberry's force at Chateauguay, see my *Field of Glory: The Battle of Chrysler's Farm, 1813* (Toronto, 1999), Appendix C.

In a similar vein, on the same page (p. 4) the author states that victory at Chateauguay "was won because the American commander blinked and his militia were reluctant to fight." The officer in question, Major General Wade Hampton of the United States Army, commanded a force in action which, by my calculations, consisted of 3,764 men, of which the greater part were regulars, although many had been in service for a shorter period than the so-called "militia" opposing them. Hampton did have two regiments of volunteers in federal service under his command, but, again, these were not "classic militia" but almost the exact equivalent of the Select Embodied Militia of Lower Canada. All evidence indicates that Hampton only had 25 men of the New York state militia ("classic militia"), but this evidence is contradictory whether or not this detachment crossed the international border. See my *Field of Glory*, Appendix B.

At the battle of Ridgeway in 1867, both opposing forces were armed with muzzle-loading rifled muskets—the Fenians having Springfields and the Canadian militia Enfield weapons. The author seems confused over the distinction between a muzzle-loading rifle musket and a breech-loading rifle, and his statement (p. 23) that the Fenians were armed with rifles is incorrect, they had a similar weapon to the Canadian militia. The fact of the matter is that the Fenians, most of whom were veterans of the Union army, were able to fire more rounds per minute than the green Canadian militia, armed with almost the same weapon.

The author's statement (p. 26) that the Snider-Enfield rifle, issued to the Canadian militia in the 1870s, was not a first class weapon but "a 3-foot long muzzle-loader converted into a single-shot breech-loader that fired a huge .57-calibre round" betrays a lack of familiarity with 19th century military weapons and their evolution. The Snider-Enfield was actually a very good weapon for its time, and only the first mark of this type was a conversion, subsequent marks (and there were many) being manufactured as breech-loaders. The Snider was highly accurate (its muzzle-loading ancestor had been one of the standard infantry weapons used by both sides with deadly effect during the American Civil War). While it is true that it had to be loaded one round at a time, so did its successor, the Martini-Henry, and so did most other major infantry rifles before

the introduction of the magazine system. The author feels that the .57 calibre (again, the standard infantry calibre in the American Civil War) is "huge," but it was actually about average for military longarms of the period and was certainly a major reduction from the .75 calibre of the weapons of the earlier 19th century.

Thomas Bland Strange was not a resident of Quebec City when the 1885 Rebellion began as stated by the author (p. 29), he was ranching on the Bow River, about 40 miles southeast of Calgary.

At the battle of Cut Knife Hill fought in 1885, the Canadian artillery was not rendered useless because, as the author would have it (p. 30), "its rotten gun platforms fell apart." The problem was not with the gun platforms but the gun carriages—very different things—of the two Northwest Mounted Police 7-pounders. The trail of one piece disintegrated and the capsquares (the metal hinges that secure the gun tube to the carriage) on the other piece gave way, and this gun had to be remounted on its carriage after every round fired. This was all the more frustrating to the gunners, who were using Mounted Police weapons because they had been ordered to leave their 9-pounder RML (Rifled Muzzle Loading) guns behind by Otter when he set out and were therefore forced to man inferior ordnance.

With reference to the Boer War, the companies raised for the 2nd (Special Service) Battalion of the Royal Canadian Regiment in the autumn of 1899 had an authorized strength of 125, not 250 men as stated by the author (p. 37). The advance toward Magersfontein began on 12 February 1900, not 12 January as stated by the author (p. 40), and the Royal Canadian Regiment did not serve as the rearguard. Canadian casualties at Paardeberg on 18 February 1900 were 21 killed, not 18 (same page), and the fatal casualties on 27 February were 13, not 8 as stated on p. 42. The Canadian Mounted Rifles were recruited from the militia as well as the North West Mounted Police, the permanent force and the general public as stated on p. 42. At Leliefontein, the Boers did not come "out of nowhere" as stated (p. 44), their approach was observed and engaged by Morrison's detachment of artillery. Turner's sergeant, Edward Holland, was not nicknamed "Gat," that was the nickname of the machine gun officer, Arthur L. Howard, and Sergeant Holland never grasped the machine gun by its hot barrel. The correct facts on the organization of the Canadian units in South Africa and their participation in the battles of Paardeberg and Leliefontein can be found in Brian Reid, *Our Little Army in the Field: The Canadians in South Africa 1899-1902* (St. Catharines, 1996).

Starting on p. 60 and throughout the remainder of the book, the author incorrectly describes web equipment as "Webb equipment."

When discussing the equipment of 1st Canadian Division in Britain in the summer of 1940, the author notes (p. 186) that, in terms of anti-aircraft weapons, this formation possessed only "obsolete 20-mm light anti-aircraft artillery." This is a puzzling statement because the only anti-aircraft weapon of this calibre in the inventory of the Commonwealth armies during the Second World War were the 20 mm Oerlikon or Polsten-Oerlikon guns which only entered widespread service in 1941 and were very effective weapons. The problem with the 1st Division's anti-aircraft defences in the summer of 1940 was not that that formation possessed obsolete weapons, it was that it possessed no anti-aircraft weapons, apart from light machine guns. See C.P. Stacey, *Six Years of War. The Army in Canada, Britain and the Pacific* (Ottawa, 1955), p. 290.

The author informs us (p. 225) that the Sherman suffered in comparison with its main opponent, the German MK IV tank, because it had a higher silhouette. In point of fact (although this is admittedly rather picky), the MK IV was an inch higher than the Sherman, and the German tank also had a cupola which increased its profile.

The author states (p. 248) that Canadian troops at Ortona suffered from the fire of "five-barrelled, rocket-projecting Nebelwerfers ...". Given the time period and the level of operations, this was more likely the 6-barrelled 150 mm Nebelwerfer 41, the most common weapon of this type and one found in the inventory of the German parachute division that fought at Ortona in 1943.

The author implies (p. 273) that Operation TOTALIZE was cancelled on 8 or, at best, 9 August 1944. It was actually cancelled on 10 August.

The author states (p. 274) that, in reference to the death in action of Brigadier E.L. Booth, commanding officer of 4 Canadian Armoured Brigade during Operation TRACTABLE, that, because "his death was not reported or his body immediately found in the chaos of battle, it was August 19 before Lieutenant-Colonel Robert Moncel could be promoted to command the brigade." In actual fact, Booth's death was known by the late afternoon of 14 August, and he was first replaced in command of the brigade by Lieutenant-Colonel M.J. Scott of the Governor-General's Foot Guards and later by Lieutenant-Colonel W.W. Halpenny of the Canadian Grenadier Guards. The five-day delay in Moncel taking over 4 Armoured Brigade was caused by the fact that Simonds refused to let Moncel, one of his senior staff officers, leave his headquarters to take up the new appointment until 19 August. The author's confusion in this respect may be understandable if he relied on the not very helpful footnote concerning this matter contained on p. 240 of the official history, C.P. Stacey's *The Victory Campaign* (Ottawa, 1960), p. 240. However, the problems encountered replacing Booth in 4 Canadian Armoured Brigade and the long delay were discussed on p. 132 of my *South Albertas: A Canadian Regiment at War* (Toronto, 1998), which the author cites (pp. 457-458) in his notes.

Just for the record, during an interview I conducted with General George Kitching, the commander of 4th Canadian Armoured Division, shortly before his death in 1999, Kitching stated that, although he respected Moncel, he was reluctant to see him take over command of 4 Canadian Armoured Brigade as Moncel had no experience of commanding an armoured unit in action, let alone an armoured brigade. Kitching would much have preferred Lieutenant-Colonel G.D.S. Wotherspoon of the South Alberta Regiment for this appointment, but Brigadier James Jefferson, Wotherspoon's immediate superior in 10 Canadian Infantry Brigade, was very reluctant to let him go. In the end, Moncel got 4 Brigade because of Simonds's insistence that he get it.

The author also states (p. 273-274), or at least implies, that, on 8 August, the area of the Falaise Pocket, "a narrow passage between the Americans to the south and the Canadians to the north, was still open but subjected to continuous shelling and air attack." This is an error. On that date the so-called "pocket" consisted of an area of nearly 1200 square miles, and only those portions nearest Allied troops were under artillery fire and there were only intermittent air attacks at this time.

The author's use of the term, "forward defences" and "main positions" when describing the German defensive deployment south of Caen (p. 270) is misleading. German defensive doctrine was to deploy in three defensive lines or belts: advanced positions were placed forward to deny the attacker good observation points and to force him to deploy early; behind them were a line of "battle outposts" sited to deceive the enemy as to the location of the main defensive belt; and finally the main defensive belt itself which was largely defended by fire and any part of which being evacuated under pressure, was to be regained by immediate counterattack. Simonds's problem, in common with most Allied commanders in Normandy, was to establish just where the main defensive belt was positioned.

The organization of the assault columns for Operation TOTALIZE described in the footnote on p. 271 was only used in 2 Canadian Armoured Brigade—the other assault formation, 33 British Armoured Brigade, had a different organization. In both brigades, however, the assault columns did not include two troops of anti-aircraft guns, it was two troops of anti-tank guns as German aircraft were rightfully not regarded as a major threat at this time.

The Allied bombing for Operation TOTALIZE on 7 August began at 11:15 PM (2315 hours), not 11 PM (2300 hours) as stated by the author on p. 272 who appears to have been confused by the statement in Stacey's *Victory Campaign* that the "rumble" of aircraft was heard at 11 PM. No Canadian senior officers were killed during the Phase 2 bombing for Operation TOTALIZE as stated on p. 273—Major General Rod Keller, commanding 3rd Canadian Infantry Division, was the highest ranking casualty and was only wounded (although he later died from his wounds).

On p. 273, the author has confused Halpenny Force (the Canadian Grenadier Guards and the Lake Superior Regiment) with Worthington Force (the Algonquin Regiment and the British Columbia Regiment).

The object of Operation TRACTABLE was not, as the author would have it (p. 274) to close the Falaise gap but to capture Falaise as a base for further operations.

The two German divisions facing the First Canadian Army in Operation TRACTABLE were not "fresh from occupation duty in Norway" as the author states (p. 274). The 89th Division, which did not defend against TRACTABLE, had served in Norway and had been badly knocked about during Operation TOTALIZE. The 85th Infantry Division, which the Canadians faced during Operation TRACTABLE, was previously stationed in the south of France, while the 12th SS Panzer Division, which also defended against TRACTABLE, had never served in Norway.

The Soul of Battle:

From Ancient Times to the Present Day, How Three Great Liberators Vanquished Tyranny

by Victor Davis Hanson (The Free Press, 1999), 480 pages.

Review by Sergeant Arthur Majoor

> *There is a soul to an army as well as to the individual man, and no general can accomplish the full work of his army unless he commands the soul of his men, as well as their bodies and their legs.*[1]

So begins a remarkable work by classical scholar Victor Davis Hanson, who is also known for his studies of ancient hoplite warfare,[2] and the influence of Classical Greek agrarian civilization and thought on Western Civilization.[3] In this work, Hanson moves across time from the classical age to the 20th century to show us that sometimes the dictates of morality can cause a singular individual to raise and command a democratic "army of a season" to swiftly and utterly destroy a tyrannical regime. The lessons in this book have profound relevance not only for dealing with today's war on terrorism and potential actions against the "Axis of Evil," but also in how Canada, as a democratic state, should raise and organize its military establishment and train its leaders.

Hanson's premise is simply that "right makes might." When democratic societies are confronted with evil, they have a remarkable ability to rapidly raise an army of avengers to destroy the evildoers in their lair. In our own history, Canada has raised military establishments from virtually nothing and created large modern armies, navies and air forces for both world wars. Where Hanson differs from conventional wisdom is his insistence that with inspired leadership, these mighty armies can be largely composed of militias, complete their tasks in only a limited period and do so without horrendous casualties or engaging in set piece battles by attacking the state in the person of the class or classes of people who support the evil regime.

This is an unusual take on military history. Democracies can raise vast armies (Canada had over one million men under arms during the Second World War) but often shatter them in frightful frontal collisions with the enemy. Megalomaniacal dictators can also raise huge armies and lead them on marches of conquest and plunder across continents, but Alexander, Napoleon and Hitler ultimately ruined their armies through over extending their men and resources.

To illustrate his thesis, Hanson examines three great marches by democracies: Epameinondas descent into the Peloponnese to destroy the power of Sparta in the winter of 370 B.C., Sherman's "March to the Sea" during the fall of 1864, and Patton's race to Germany from August 1944 to May 1945:

> *Theban hoplites, Union troops and American GI's, this book argues, were ideological armies foremost, composed of citizen-soldiers who burst into their enemies heartland because they believed it was a just and very necessary thing to do. The commanders who led them encouraged that ethical zeal, made them believe there was a real moral difference between Theban democracy and Spartan helotage, between a free Union and a slave owning South, and between a democratic Europe and a nightmarish Nazi continent.*[4]

In each of the three cases, Hanson lays out the basic elements of the opposing societies for the reader. Readers, especially those who are not well versed in one or more of the periods under discussion, will appreciate Hanson's ability to describe societies during the three eras in quick strokes. Epameinondas' decision to invade Laconia with an army of about 70,000 hoplites and what he hoped to achieve becomes clear when the reader understands the intricate divisions of Sparta's apartheid society and the history of the Boeotian federation. Similarly, Sherman's decision to march from Atlanta to the Atlantic coast and Patton's imperative to outflank and envelope German armies with manoeuvre are presented in the context of the wider conflict between the democratic societies they represented and the slave societies they sought to destroy.

The reader also learns of the mechanics of operating armies in the various ages as well as the constant observation that the avenging armies of the democracies were large in both relative and absolute terms. The 70,000 hoplites who descended on the Peloponnese were the largest force assembled in Greece since the Persian wars, more than enough to destroy any conceivable army of Spartans. The sheer size of the Boeotian army overawed the Spartans and their allies into huddling in the centre of the city of Sparta itself and refusing to fight the invaders, who were left free to destroy Spartan estates, strip Sparta of her enslaved work force and establish sanctuaries for the Helots to create new city states in the Peloponnese. Sherman set out from Atlanta with 62,000 Union soldiers, more than a match for the potential 40,000 Confederate soldiers who were in the path of his march. These Confederate soldiers chose to huddle behind their fortifications and allow the plantations to be burned and crops plundered rather than face the Army of the West. Patton commanded an army of almost a quarter million men, and his deft handling and rapid movement of the Third Army made many German officers believe they were facing an army group. Patton certainly got results on that scale, capturing more prisoners and advancing farther and faster than any other Allied army in the same period.

The modern reader should note boots on the ground still count, even in the age of smart bombs and other high tech weaponry. In the recent war to liberate Iraq, the sheer numbers of Americans and the speed they were advancing collapsed any organized resistance and reduced irregular troops to a handful of pinprick attacks. Canada made a sterling contribution in Afghanistan with only 1000 soldiers. Imagine how much easier the job would have been if we could have contributed 10,000 soldiers, able to cover the approaches to Pakistan or flood the Tora Bora mountains to sweep caves and other potential redoubts of the Taliban and Al Qaeda. In Iraq, an infusion of 1000 Canadian soldiers might have made some difference to the overall campaign, but 10,000 or more Canadian troops fanning out to hunt for the Fedayeen Saddam and suicide bombers while securing the

supply lines could have only enhanced the speed and power of the main thrust to Baghdad. A reorganized Canadian militia could be a force that could be mobilized for such tasks in great numbers. A large body of troops is less likely to be endangered in action (especially when operating within a larger alliance) by its ability to overawe potential opposition through sheer size, and by directing its efforts at the supporters of evil regimes, such a body can count on the support (active or passive) of the local population.

The reader also learns about the remarkable commanders of these democratic armies. Each of these men—Epameinondas, Sherman and Patton—were the driving forces behind their great marches. Not only did they have the vision to conceive of the project but also the organizational ability to raise and direct large armies, the rhetoric to inspire the troops and the moral courage to carry out their marches in the face of almost universal opposition by their own superiors. Because of their single-minded zeal in carrying out their projects, they also ended up under clouds of suspicion. Epameinondas was charged with treason for keeping his army past his appointment as commander. Sherman was accused of racism and brutality despite freeing and employing thousands of ex-slaves to work as sappers and pioneers for the Army of the West and inflicting far fewer casualties on the Confederates than Grant could in a single frontal engagement. Patton was constantly at odds with his superiors over the shape of the campaign against the Germans and logistical support he needed for his drive on Germany as well as the fiery rhetoric he used to inspire his men against the Germans.

The examination of the commanders includes a fairly detailed biographical discussion to determine where they developed their abilities as commanders.

Epameinondas is the most difficult to examine due to the great gaps in the historical record. No primary sources survive, and he is only obliquely alluded to in other histories (being totally absent from Xenophon's "History of my times," having overthrown the power of his adopted state). From what little is known of him, the strongest influence seems to be the philosophies of the Pythagoreans, who attempted to discover and apply mathematical principles not only to geometry but to all aspects of life. Sherman had a varied career both in the Army and in various commercial and educational projects outside before rejoining at the onset of the Civil War. He achieved various degrees of success in these endeavours but tasted failure as well. Patton, although a career officer, also had a wide range of assignments within the Army as well as cultivating wide ranging outside interests and activities, from being an Olympic athlete in the 1912 games, sailing, piloting aircraft and reading on a wide variety of subjects. Despite his wide range of experience and accomplishments (Patton designed the US Cavalry sabre and developed cavalry training throughout the 1920s and 30s), he was still of only middle rank as the Second World War approached and in danger of being passed over and retired.

The common denominator for these three men seems to be their wide range of interests and experience, leavened with the taste of defeat. This wealth of experience is certainly a factor in their ability to recognize and overcome the problems ivolved in organizing large armies and handle the strategic, operational logistical and (sometimes) political factors in leading a great march. Having risen from defeat, they knew there was nothing to lose by embarking on these ambitious projects and, therefore, had the will to carry on in spite of all opposition.

Being well read and educated, they also had the ability to communicate their vision to their soldiers in language and deeds that inspired the troops. All three men led from the front, both literally and figuratively. Epameinondas lead from the front rank of the phalanx, ultimately dying under the spears of the Spartans at the battle of Mantinea, Sherman had horses shot out from under him at the battle of Shiloh, and Patton constantly courted danger by touring the front lines in an open staff car.

Only men with such wide ranging education and experience seem able to have the vision and moral courage to lead such operations, a telling argument for modern Canadians concerned with the value of education for officers and leaders in general. The greatest Canadian generals were the ones who led the Canadian Corps in the First World War. Men like Arthur Currie, Raymond Brutinel and Victor Odlum changed Canada's army from a raw militia using rifles and horse cavalry to an efficient fighting formation capable of integrating infantry, machine guns, artillery, chemical weapons, tanks and airpower. They, like most of the other leaders of the Canadian Corps, were businessmen in their pre-war lives, and that range of experience gave them the flexibility and depth of experience to experiment, change and adapt the Canadian Corps to the military environment. In today's world, the militia boasts soldiers who embody a wide range of interests, education and experience. Certainly, this is a talent pool ignored at great peril given the complex security environment and wide range of potential operations we may encounter in the years ahead.

The recently concluded war in Iraq is a powerful test of Hanson's arguments. Donald Rumsfeld, the American Secretary of Defense, certainly embodies the wide range of experience, education and moral courage Hanson feels is important to leaders of democratic marches. The integration of land, sea and aerospace forces in the modern age goes far beyond the traditional conception of an "army," which may explain why the leader who organized and led this march to liberate Iraq was the Secretary of Defense and not a general. The alliance presence in the Persian Gulf is large by any standard, despite the sniping of commentators who felt there were not enough troops to carry the day. The means of waging war have changed, and the presence of over 1000 American and allied warplanes substituted for divisions of ground troops. Precision bombing of selected targets such as Republican Guard formations and known or suspected positions of Iraqi leadership punished the guilty in the same way that firing the estates and plantations of the "Similars" and Confederates did in the past. The allied forces certainly accomplished their aim with breathtaking speed, entering Baghdad and overthrowing the Hussein regime in only three weeks.

The future still has a place for commanders and armies who can embody the principles Victor Davis Hanson identifies in this book. Technology may change the circumstances and methods of bringing battle and the scourge of war against the perpetrators of evil, but

democracies can raise mighty "armies of a season," unleash them against a defined target with clearly identified aims and emerge victorious.

Sergeant Arthur Majoor is a reservist currently training with Op PALLADIUM Roto 13. He is a frequent contributor to this journal.

ENDNOTES

1. William Tecumseh Sherman, *Memoirs, II*, p. 387, quoted in the front piece of *The Soul of Battle*.

2. Victor Davis Hanson, *The Western Way of War* (Alfred A Knopf, 1989).

See also, Victor Davis Hanson, editor, *Hoplites: The Ancient Greek Battle Experience* (Routledge, Chapman & Hall, 1993).

3. Victor Davis Hanson, *The Other Greeks, The Agrarian Roots of Western Civilization*, (The Free Press, 1994) and *Who Killed Homer? The Demise of Classical Education and the Recovery of Greek Wisdom* (Simon & Schuster, 1998).

4. Victor Davis Hanson, *The Soul of Battle* (The Free Press, 1999), p. 13.

Italians (and a Canadian) on the Canadians in Italy…

The Gothic Line: The Canadian Breaching at Tavullia Key of the Italian Campaign
by Amedeo Montemaggi and Bill McAndrew (Commune di Tavulla, 1997). Text in Italian and English, 117 pages with many maps and colour images, available through the Fort Frontenac Officer's Mess, Kingston, Ontario, telephone (613) 541-5010 local 5846.

1943: The Road to Ortona
by Saverio Di Tullio (Toronto: Legas, 1998), ISBN 0-921252-78-1, 109 pages, full colour.

Review by Major John R. Grodzinski, CD

> *There is a soul to an army as well as to the individual man, and no general can accomplish the full work of his army unless he commands the soul of his men, as well as their bodies and their legs.*[1]

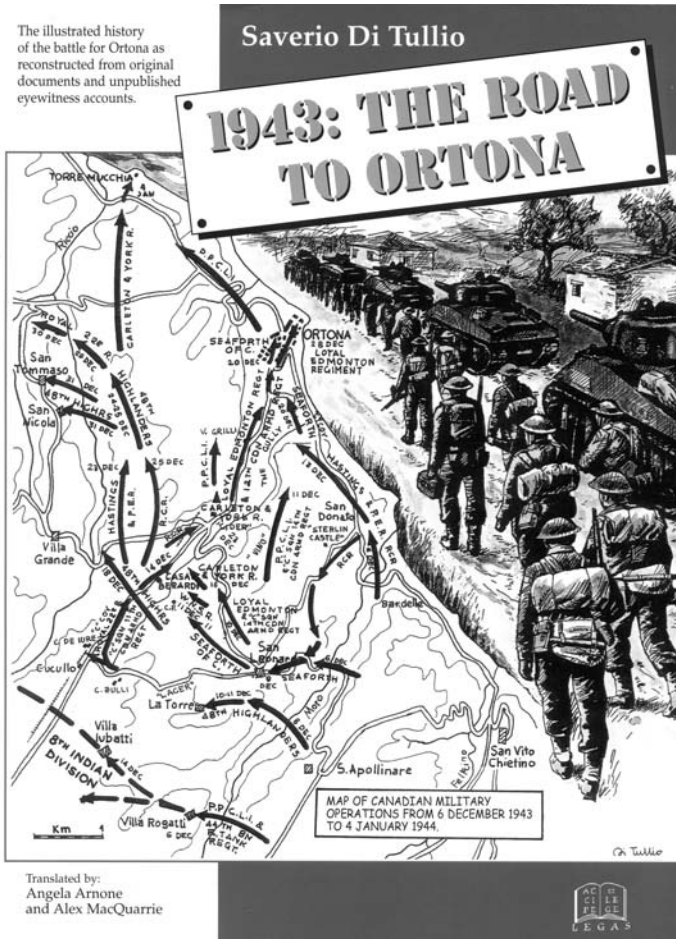
To this day, the epic story of those Canadians who fought in the Italian campaign from July 1943 to February 1945 is second only to the story of the battles fought in northwest Europe. From Pachino to the Senio, Canadian efforts in the Mediterranean theatre were impressive. In Italy alone, 92,757 Canadian Army personnel participated in four major offensives and a series of minor battles and actions, while serving in 1 Canadian Corps or the 1st Special Service Force, and of these, 26,254 were casualties.[1]

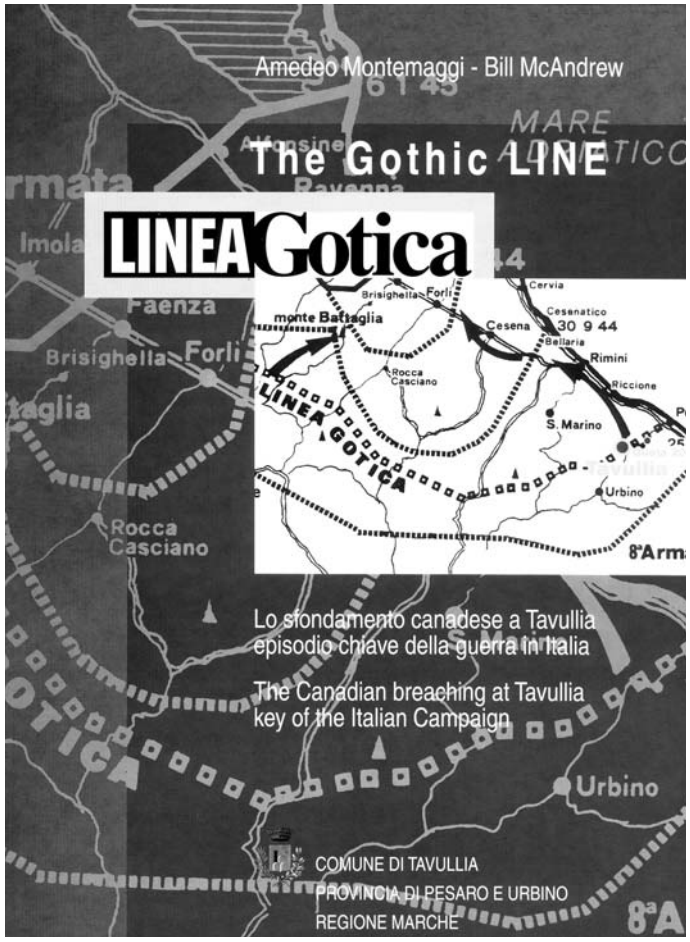
The literature of the Italian campaign is not as large as that on northwest Europe, but it is generally quite good. The best popular history published so far is Daniel G. Dancocks *The D-Day Dodgers* (Toronto: McClelland and Stewart, 1981), and there are several other excellent titles. Readers of this journal may be surprised to learn that several Italians have also written on this subject, and two of these studies are the subject of this review. The two books reviewed here deal with the Canadian role in two major allied offensives in December 1943 and the later summer of 1944. Both operations set out with major objectives and both ended short of their intended goals.

During late 1943, with the commensurate transfer of troops, planes and ships from Italy to England in preparation for the invasion of Normandy, Allied commanders in Italy launched what they hoped was a strategic coup. Their goal was the capture of Rome and the destruction of the German army in Italy through carefully coordinated Anglo-American thrusts along the Adriatic coast and up the Liri Valley. For the 1st Canadian Division, the result was several difficult (and successful) battles on the Upper Sangro, the Moro, the Gully, San Leonardo, Cider Crossroads, Sterlin Castle, Vino Ridge, Casa Berardi and Ortona. Eventually, 2nd Canadian Brigade cleared Ortona, while the two other Canadian brigades secured objectives further north. Despite several notable successes, the offensive ground to a halt and was ended in early January 1944.

Perhaps the most famous event at the time was the banquet held the church of Santa Maria di Constantinopoli in Ortona on Christmas Day, 1943, where troops were pulled out of the line for a few minutes peace and a hot meal before returning to battle. For most of the troops, it was their fifth year overseas and their first major fight in a built up area. Many would not live to see another.

The Road to Ortona tells all these stories and more. It is not a typical history book. The author, Saverio Di Tullio, tells the story through comic book style panels and the result is a remarkable work. Di Tullio researched the subject thoroughly, interviewing Canadian and German veterans along with Italian civilians, and through the extensive use of primary and secondary sources. Armed with this intimate knowledge of the battle, the author then drew hundreds of panels—several based on period photographs—depicting these events. The result is a very readable and fascinating account of a significant Canadian divisional operation during the Second World War. Not only do we see images of the actions of various commanders and soldiers but the tragic effects of the war on the civilian population, often difficult to convey in a narrative. Indeed, the





stories of the atrocities experienced by the citizenry of Ortona and operations by partisan forces are relatively unknown in English language studies. Readers of all ages will enjoy and appreciate this study.

In the other title of this review, Canadian historian Bill McAndrew teamed up with Amadeo Montemaggi to produce *The Gothic Line*. McAndrew is well known both as an author and battlefield guide who for many years accompanied Canadian Land Force Command and Staff College (CLFCSC) battlefield studies to Normandy and Italy and who has kept study of the Italian campaign alive, not only in Canada, but in other countries as well. The Gothic Line battles have fascinated Amadeo Montemaggi for some 35 years. Author of many books and articles on this and other subjects, he possesses a vast archive of war diaries, documents and correspondence with Canadian, British, German, Italian and Allied veterans of the campaign in his home near Rimini, Italy.

The Gothic Line is presented in two parts. The first provides a general overview of the Gothic Line campaign from 25 August and 22 September 1944, in which the Allies advanced out of the mountains and into the Lombard Plain. Part two recounts specific actions by units of 1st Canadian Corps, the 5th British Corps, Polish 2nd Corps and Italian units.

For a short book, the authors have much to say. On the Gothic Line offensive, they write: "the Gothic Line was an epochal battle 135 days long. It gave to south-eastern Europe the order she had till 1989, to the fall of the Berlin Wall" (p. 17). This is strong stuff, striking at the fundamental military and historical debates of the Italian campaign. Between 1943 and 1945, arguments bounced between British and American political leadership, their respective chiefs of staff, the largely American staffed theatre supreme command headquarters, the British dominated army group headquarters and the one American and one British field army over the strategy to follow in Italy. According to conventional wisdom, the Americans regarded Italy as a diversion to the Allied war effort and that British attempts to expand the theatre were self-serving. To the British, according to supporters of Winston Churchill and Montemaggio, the post-war balance of power in Europe, and not just the defeat of the Nazis, was the real concern. This is where the Gothic Line comes in, and the authors—or at least Montemaggio—make their point. Winston Churchill believed that "the control of the Mediterranean meant the control of the Western world" and that it "is in Italy where the future of the Balkans and Europe will be decided" (p. 19). Fearing Soviet domination of central Europe, the British prime minister intended "to turn and break the Gothic Line, break into the Po Valley and ultimately advance by Trieste and the Ljubljana Gap to Vienna" (p. 20; see map accompanying this review) thus blocking any Soviet advance into central Europe. Churchill believed in this so strongly that if the Americans did not play, he would make this "strategic stroke" entirely a British one (p. 20). This is a significant point and one that many historians, particularly in the United States, would dismiss or at least hurl derisive comments at.

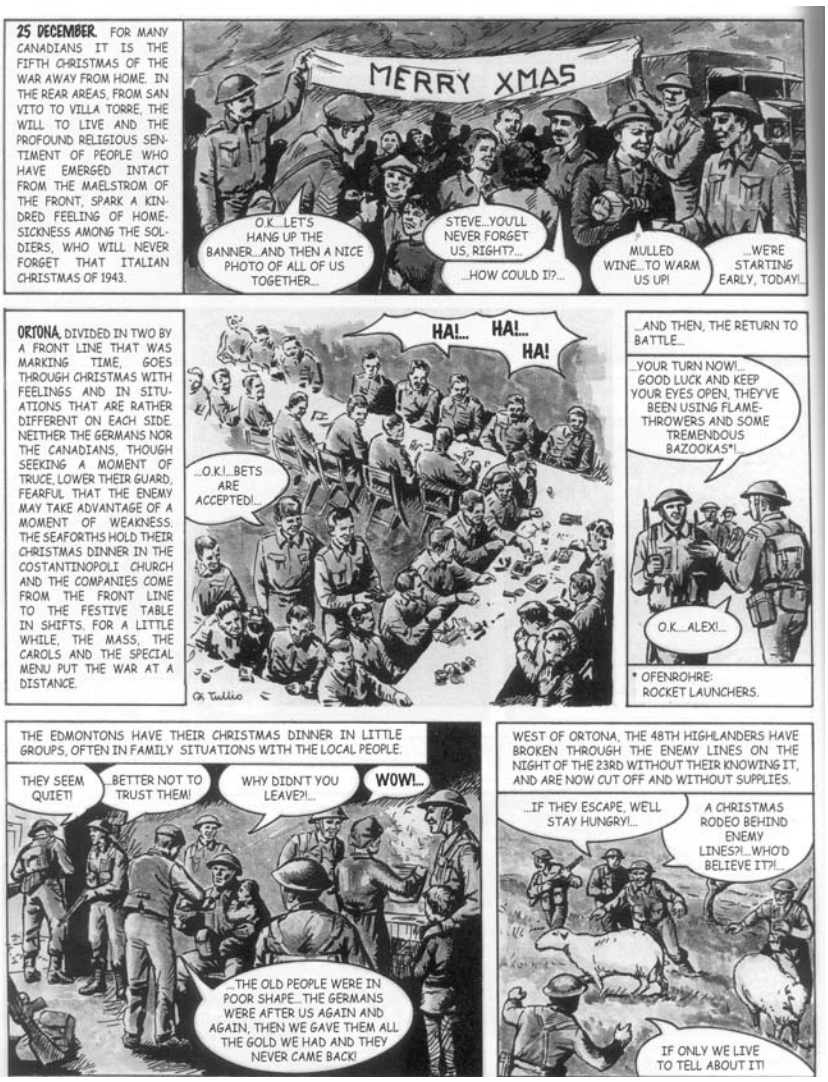
From the comfort of the armchair, one wonders whether the huge military obstacles (terrain and enemy resistance are but two) inherent in this strategy might have brought disaster. The maps studied by the British prime minister in London may have not revealed these

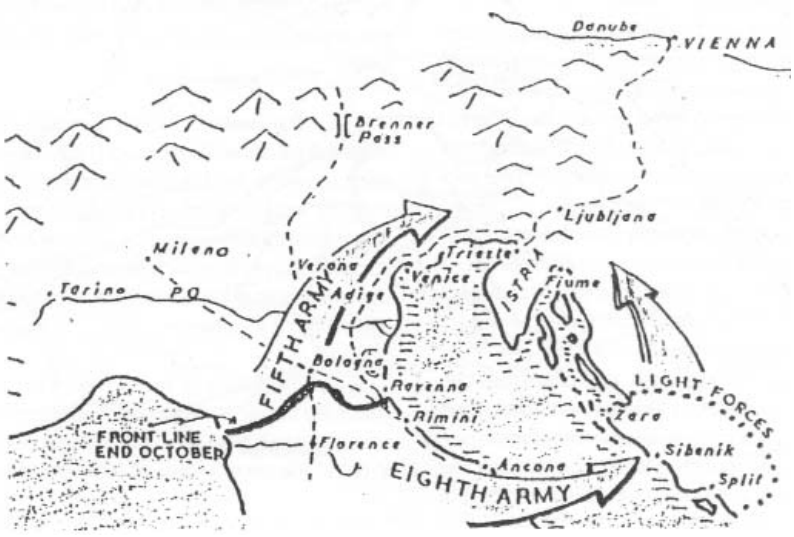
challenges so readily. Nonetheless, it is an interesting argument, particularly as allied strategy in the Mediterranean routinely lacked any concrete political or military goals. Indeed, Churchill had once earlier remarked that "it is not enough for the Government to say: We have handed the war over to the military…I protest against that view…Nothing can relieve the Government of their responsibility." There lies the rub of the Italian campaign, forcefully presented in this book.

Moving to the tactical level, the second portion of the book includes personal accounts and excerpts from regimental and other histories about specific actions. They add colour and detail to the opening narrative and are well supported by many previously unpublished photos and maps. They also highlight the impressive fighting skill of 1st Canadian Corps. Departing again from the traditional view, credit for the collapse of the Gothic Line is given to the British Columbia Dragoons and the action at Point 204 on 31 August 1944, which by flanking several German units, forced their withdrawal and abandonment of the defensive line (p. 48, 49). The British Columbia Dragoons receive more praise than several recent studies have dared to.

Given the brevity of the strategic and tactical discussions, one hopes that Montemaggio will one day present his ideas with greater detail. Until then, *The Gothic Line* will remain an important study and the sole title on that campaign.

Overall, both titles are important additions to the literature on the Italian campaign and will be useful in understanding the key role played by Canadian formations in two campaigns, the civilian dimension and the linkages between military and political strategy.





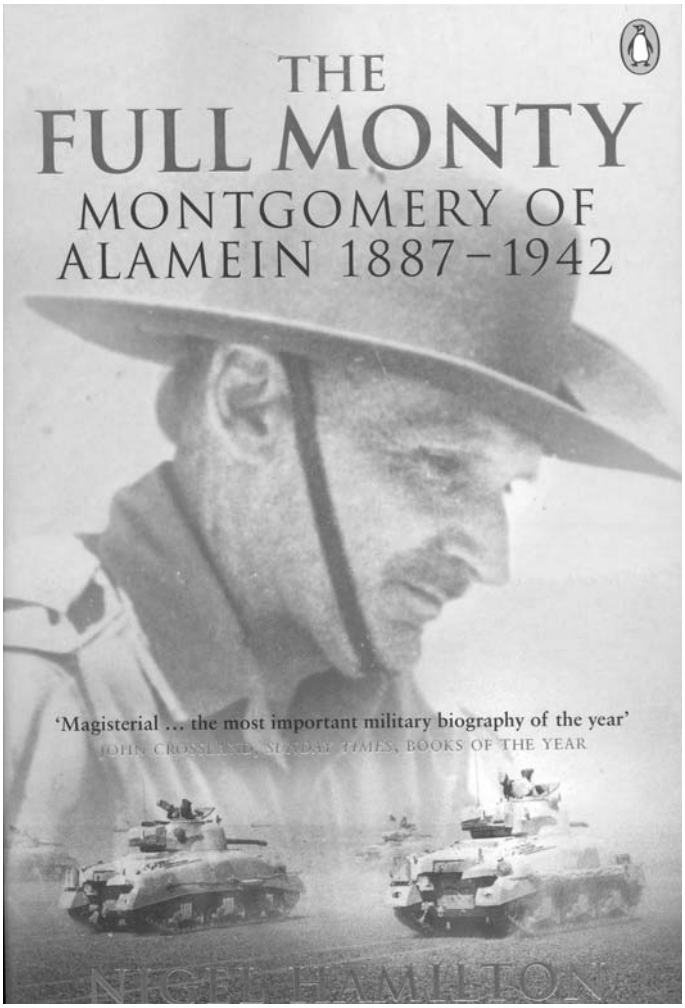
Major Grodzinski is the former Managing Editor of The Army Doctrine and Training Bulletin *and has visited both Ortona and the Gothic Line battlefields as a historian accompanying unit battlefield tours. He is now attending a year long French course in Kingston, Ontario.*

ENDNOTE

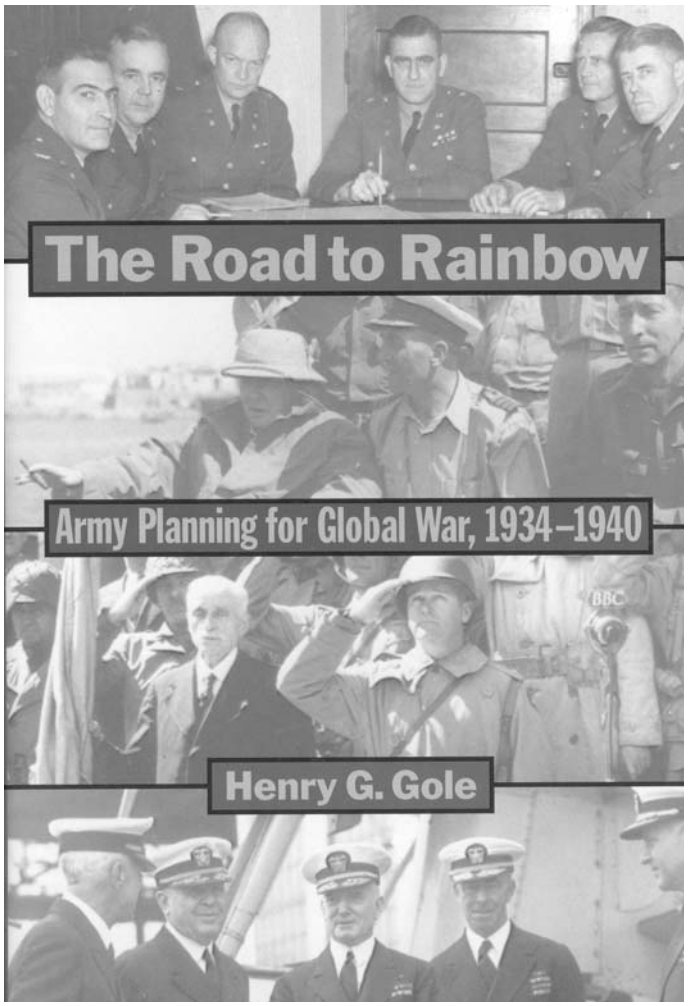
1. Lieutenant-Colonel G.W.L. Nicholson. *Official History of the Canadian Army in the Second World War, Volume II : The Canadians in Italy.* Ottawa, 1956, p. 681.

Books of Interest:

A selection of New and Recent Books for our Readers



Nigel Hamilton. *The Full Monty. Volume 1: Montgomery of Alemain, 1887-1942*. Penguin, 2002. ISBN 0-140-28375-7. A highly controversial biography by the author of the massive official Montgomery biography. While reviewers have focussed on the author's discussion of Monty's apparent homosexuality, this book offers a compelling new interpretation of this great figure, including the doctrinal debates of the 1930s, Canadian generalship in 1942 and the Dieppe raid.



Henry G. Gole. *The Road to Rainbow. Army Planning for Global War, 1934-1940*. Naval Institute Press, 2003. ISBN 1-55750-409-1. A forceful challenge to the accepted historical wisdom as to when the U.S. Army commenced planning for coalition warfare and a two-ocean war. Includes a detailed examination of the critical role played by the Army Staff College and the coordination of its efforts with the Army General Staff.

The Stand-up Table

Commentary, Opinion and Rebuttal

Reading in the Postmodern Army

The Army Reading List…

More on this subject from Major Andrew B. Godefroy of the Canadian Forces Joint Space Support Team…

With Major Farrell's opinions about military reading in the postmodern army (*The Army Doctrine and Training Bulletin* Vol. 5 No. 4 Winter 2002-2003) in response to my comments published in *The Army Doctrine and Training Bulletin* (Vol. 5 No. 3 Fall 2002), I would like to respond with the following comments.

First, I would like to publicly apologize to Major Farrell if it appeared to him that I was launching a personal attack against his character in my last letter. My criticism was intended for and directed at his point of view not him as an individual. That being said, *The Army Doctrine and Training Bulletin* is designed for public debate, and if one writes a piece that is published here, I would only suggest that it is wise to separate ego from script and be prepared to repel boarders (myself included).

That said, the point of the debate between us is essentially this: we disagree on what is the true value, if any, of providing an officially recommended reading list for soldiers who are expected to demonstrate a high degree of general knowledge about their chosen profession. Also, it seems that there is an issue about whom, if anyone, within the Army might be so qualified to compile such a list.

While the former issue requires further discussion below, the latter point may be simply addressed. Aside from clearly identifying himself as an I-don't-need-to-be-told-what-to-read officer (not to be confused with my apparently despised category of people-who-can-select-their-own books), Major Farrell defended his position in his last piece by stating that he was "not interested in the opinion of somebody I don't know at least by reputation." To this I would only offer that it might be a wise move to become more familiar with who the Chief of the Land Staff actually is, given that he is the boss and he officially endorsed the reading list. Granted, his staff was probably responsible for the majority of its compilation, but this should not automatically equate to "useless." We are not talking about a list compiled by Zoolander's School For Kids Who Want to Read Good; the books listed in *The Canadian Army Reading List (ARL)* were carefully chosen and may also be found in the reading lists of several other professional armies, both allied and otherwise. However, this does not automatically mean that the selected books are "officially" good. That judgement must be left with the reader. What I suspect has happened here is that Major Farrell is indeed a well-read officer, went to the ARL seeking an advanced guide or critique and was disappointed when he found instead the basic manual. So, I would offer that I have not completely missed his point; rather, as I stated previously, he has missed the point of the *ARL*.

So what then is the point of the *ARL*, and, perhaps more importantly, why do armies even produce such reading lists in the first place? The practice of encouraging professional soldiers to read about their chosen profession is easily traced back a few centuries. It is a well-known fact that Napoleon was an avid reader, and, despite "his busy schedule as conqueror, administrator, and as emperor, [he] still found time to read a wide variety of books."[1] For example, a few days prior to his departure to assume command of the French Army of Italy in 1796, Napoleon's biographer Vincent Cronin noted that he visited the French National Library to familiarize himself with the geography, politics, and military history of the armies and country he was to conquer.[2] In particular, Napoleon read *The Memoirs of Marshal de Catinat*, a biography of the Prince Eugene of Savoy, and three volumes about his battles, Saint Simon's *Guerre des Alpes*, and a volume on Jean-Baptiste Francois de Maillebois' Italian campaigns.[3] When he moved on to Egypt in 1798, Napoleon repeated the process and included in his three-hundred book library aboard his ship *L'Orient* items such as the Koran, Plutarch, Livy, Virgil and histories of Alexander the Great. Though certainly not ordered to do so, Napoleon easily made the connection between knowledge and power and the professionalism that came with reading and thinking outside the box.

Napoleon also once noted that the trouble with books is that one must read so many bad ones before finding something worthwhile. While perhaps true in the Napoleonic age, it is most certainly true today with an exponentially expanding book market supported by the Internet and other forms of open

source media and information. The poor Canadian Army soldier finds him/herself quickly drowning in the never-ending sea of options. While Major Farrell asserts that this situation supports his argument against the *ARL*, I disagree. It is exactly *because* of this situation and the fact that most, if not all, members in the Canadian Army have a very finite amount of time to read beyond the already insurmountable workload that recommended reading lists have become a crucial asset. Major Tom Bradley made this exact argument in the last issue as well, when he quoted a previous writer in reference to comments about the academic qualities of the officer corps. When explaining why the officer corps does not produce a large volume of academic discussion papers he wrote, "We at all levels in the Canadian Army are becoming so overwhelmed with work, much of which provides little other benefit than to tax the staffs involved."[4] All of which leaves little precious time for reading, let alone writing.

In addition to saving time, the *ARL* is also meant to provide guidance and perhaps even focus. While Major Farrell may have entered into Army service with good reading habits and self-motivation, I would argue that the majority of our fellow soldiers have not. This is not anyone's fault; rather, critical reading and professional reading is a skill requiring development like anything else. People are not necessarily prone to reading for personal benefit, and lack of time is often mentioned as the reason why one does not read more often. One only has to teach a military history class or two to the engineering students at RMC to quickly discover how little non-technical literature they have read about their profession and how little real motivation there initially is to even consider reading beyond what is expected for classes and assignments. Those who do wish to read outside the box often complain that they do not know where to even start. I was unable to locate any official reading guide for RMC students beyond what was produced for specific classes, and, for that matter, neither the Canadian Navy, Air Force, Coast Guard or Joint units have any officially published reading lists for their NCMs and officers. Those looking for a bit of authoritative guidance on what might be considered notable or worth reading are unfortunately out of luck. While friends and colleagues can certainly recommend books, if they are equally in the dark about a subject, what sort of advice could possibly be expected?

Contrast Canadian military reading guidance, for example, with that of the *United States Military Academy Officer's Professional Reading Guide*. At just under 89 pages, the annotated bibliography is a comprehensive reference and guide for the young officer candidates' shelf. The introduction to the guide is very candid and succinct, and it clearly points out that the intent of the guide is to get the young soldier started on a reading program at the very beginning of his/her career. It reads, "Clearly, the newly commissioned officer's initial years of service are indeed busy ones; nevertheless, you should be able to find time to read at least one good book a month." Like the *ARL*, it also states, "The books in this volume are merely suggestions." Meanwhile, the *U.S. Army Chief of Staff's Professional Reading List* is broken into four subsections, each designed to address a particular level of command. For example, sub-list 2 is designed for company grade officers, WO1-CW3, and company cadre NCOs. Yet regardless of the level, its overall message remains the same. It states, "Historically, one of the most important, distinguishing characteristics of outstanding soldiers has been a challenging personal professional development program largely based upon reading." Aside from the Army, every major branch and service in the U.S. Military has an officially recommended reading list, right up to and including the Chairman of the Joint Chiefs of Staff. Other than personal reading lists issued out by local commanders, the Canadian Army is the only organization in the CF that I have been able to discover an officially published reading list for.

Beyond the minor dispute between Major Farrell and myself, there are other aspects to military professional reading lists that should be considered. An army that publishes a recommended reading list is making an implied statement about what it thinks is important for its members to know. The fact that the Canadian Army has an official reading list while other organizations within the CF do not demonstrates foresight and perhaps vision not snobbery or ignorance as suggested. While not perfect, the *ARL* is a start, and it demonstrates that someone in the Army (perhaps the CLS, though I only know of him by reputation, so maybe I should be sceptical?) *cares* enough to try to move its members from the left side of the professionalism bar a little more towards the right. Also, other armies will pay close attention to our *ARL*. Just as I have deconstructed some of the American lists here, one can be sure that other militaries are doing the same with our list. Others will perceive what the *ARL*

contains as an indication of who we are as an institution.

In the end, I suspect that Major Farrell's primary concern with the *ARL* is twofold. First, his previous comments suggest he may not care much for the persons responsible for its publication, and second, he feels it is inadequate. While not insinuating anything further regarding the first issue, the second issue is pertinent to this discussion. The *ARL* was first published in September 2001 and is now nearly two years out of date. Several new and important publications have arrived since its compilation, and it is in need of an update. Further recommendations might also be considered. The introduction to using the list may benefit from a more detailed discussion about its purpose (including many of the points listed here), as well as some reference to similar reading lists available elsewhere. The structure could also be improved. While major subject headings remain valid, it may make more sense to create subheadings in order to better organize the list rather than depend completely on listing titles alphabetically by author. For example, opening up to the *ARL* Military Theory section (p. 6) the first book listed is Christopher Bassford's *Clausewitz in English*. Only further down the page is Clausewitz's own work *On War* listed. It makes little sense to read critiques of the major theorist's work without first actually having read the work itself, and the *ARL* would help novice readers situate themselves better by following a more chronological order in some cases.[5] As well, rather than a devoted section to Canadian military heritage, create instead a Canadian Literature subheading within each major section of the list. Finally, the *ARL* also does not contain a list of pertinent journals or Internet sites where further information may be obtained.

The publication of the *ARL* signalled recognition of the requirement of the postmodern soldiers to use his/her limited time to its best potential. It was meant to foster personal professional development within the ranks of the Army, was never intended to be exhaustive and will hopefully encourage rather than deter our soldiers from pursuing a reading program. It should be updated in the near future, and, more importantly, perhaps it will encourage other branches in the Canadian Forces to follow suit with their own official reading lists.

ENDNOTES

1. Grossman, Ira. "Napoleon the Reader: The Imperial Years", at URL http://www.napoleon-series.org/research/napoleon/c_read2.html.

2. Ibid.

3. Ibid.

4. *ADTB* "The Stand Up Table: Commentary, Opinion, and Rebuttal", Vol. 5 No. 4 (Winter 2002–3), pp. 88-89.

5. Thanks to Major Ian Rutherford for offering this point, and it makes sense as I have witnessed army members who are essentially 'going down the list' checking off each item after they have read it.

More commentary on "No Time to Think: Academe and the Officer Corps" *ADTB* Vol 5 No 3, Fall 2002.

*In response to Major Tom Bradley's commentary on this editorial (*ADTB *Vol 5 No 4 Winter 2002-2003), Sergeant Arthur Majoor, currently training for Roto 13 of Op PALLADIUM, writes...*

As a frequent contributor to *The Army Doctrine and Training Bulletin*, I felt the need to comment on Major Bradley's letter. His comment about the flood of ideas, visions and proposals in the mess is interesting, but these ideas, visions and proposals are really only idle speculation. A visit to any sports bar on a Friday night will also result in a flood of ideas, visions and proposals to make the Montreal Canadians or the Toronto Maple Leafs contenders for the Stanley Cup, if only....

The audience limits discussions in the mess, or over a coffee at lunch, since most, if not all, of the people present will be part of a small peer group. If a record were to be kept over a period of time, it would soon become apparent that most of what is being said is a rehash of things that have been said before. Most people will slip into a comfortable routine in a social setting and not say or do anything to rock the boat. Writing for a larger audience forces the writer reach out to a largely unknown audience and requires that the material be supported by research and presented in a convincing and logical manner. In essence, writers cannot indulge in idle speculation for the

ADTB or similar journals, they must be able to present a convincing argument and prove their point.

As for the argument that there is no time for writing, I fully sympathize. My duties as the 31 Brigade G6 LAN Manager were incredibly time consuming, interacting with computer users of all skill and knowledge levels, meeting unit and brigade IT requirements and forecasting and fulfilling future needs, seeking information and providing reports and returns up my chain of command, as well as attempting to meet ambitious tactical training plans with wildly inadequate comms resources as a secondary duty. Once the day was completed, I also had two small children to attend to, taking them to and participating in their after school activities. By the time they went to bed and household needs were attended to, it was usually about 10:00PM. My current duties as section commander in Roto 13 look to be equally busy and fulfilling, and I expect to be on a similarly demanding schedule for the foreseeable future.

The point of describing all this activity is that I make the time to sit down and do research or write at 2200 hrs because I feel that I have something to offer to a wider audience than the few people who bother to show up in the messes I am familiar with, and that engaging with a wider audience can test my ideas, improve my ability to formulate arguments, and expose me to new and different viewpoints. I must confess the evolutionary development of my or anyone else's writing suffers when there are no rebuttals, arguments or counterpoints. The Master Corporal who wrote "An analysis of Strategic Leadership"[1] must have been thrilled to discover his work being used for such an important writing board.[2] Think how much better his arguments would have been if he had the opportunity to answer intelligent criticism or what new directions well placed counter arguments might have led him to. Instead, he was greeted with silence, and perhaps this response explains why we have not heard from him again.

Even if my need for self-expression is unusual or extreme, I would still challenge all readers of *The Army Doctrine and Training Bulletin* to make a contribution in writing. Engaging the writers of the papers published in the magazine through the "Stand-up Table," letters to the editor or articles arguing opposing viewpoints will help both sides refine their arguments for and against the item under discussion and help stimulate new thoughts and ideas (one of the side effects of higher education as well). Perhaps the ideas, visions and proposals out there do have some merit; it is now up to the people making them to prove their points to the rest of us.

ENDNOTES

1. MCpl Richard P Thorne, "An Analysis of Strategic Leadership," *The Army Doctrine and Training Bulletin*, Vol. 3, No. 3 (Fall 2000), pp. 8-15.

2. Major J.R, Grodzinski, "No time to think: Academe and the Officer," *The Army Doctrine and Training Bulletin*, Vol. 5, No. 3 (Fall 2002), pp. 6-9.

On "The Administrative Estimate in the Operational Planning Process" by Lieutenant-Colonel R. Préfontaine, *The Army Doctrine and Training Bulletin*, Vol 5 No 4 (Winter 2002-2003).

Colonel A.F. Markewicz, Commanding Officer 8 Field Engineer Regiment, writes...

On reading this article, I was somewhat concerned and puzzled about the use of the term "implicit tasks." In Step 3, Mission Analysis, the author describes implicit tasks as "those tasks that the commander will identify as crucial to the success of the mission. A task is said to be implicit when it requires special attention in time and space because it is so vital to the success of the mission."

I was puzzled by the use of the word implicit as well as the definition. Consulting with Lieutenant-Colonel Casarsa, a member of the Directing Staff at the Canadian Land Force Command and Staff College, he confirmed with the author that this was a translation error. The correct term is "implied tasks" vice implicit. "Implicit tasks" do not exist. With respect to definitions, implied tasks are "other activities that must be carried out in order to achieve the mission, including the requirement to support the superior commander's main effort" (pg. 6A-7 of B-GL-300-003 *Command* refers).

As it was described to me, the author's interpretation of the definition may have some merit as it pertains to time/space resources and groupings—concrete factors to get away from motherhood, SOP or activities beyond the scope of mission of the formation. It gives the students something tangible to work with.

In my side discussion with the DS, we both agreed that an implied task cannot be vital to the superior commander, otherwise it would be assigned. An implied task is important to the tactical commander to meet the higher commander's intent. However, the subordinate commander cannot ignore all, or many, of the implied tasks without being in peril of failing in

his overall mission. Reviewing the French text, it would appear that the emphasis is different.

As I have always understood an implied task, it is normally an enabling task that allows the accomplishment of the assigned mission. In some cases it may be a task that is identified by the subordinate commander based on his knowledge of the situation. An implied task must contribute to the mission or follow the commander's intent. As an example, "dominate road junction XYZ" may be an implied task to a mission of an area defence. This deduction leads to specific requirements for resources and a specific task. "Digging in" as an implied task to a defensive operation may certainly be an implied task, but this is a motherhood statement that does not contribute to the assignment of resources and tasks to subordinates. Perhaps, in simplest terms, an implied task drawn from a superior commander's orders and intent should translate into a specific task to a subordinate.

I would suggest that this correction be highlighted in the next edition as well as clarification on the whether or not an implied task is vital.

Commentary on "Canada and UN Peacekeeping—Cold War by Other Means, 1945-1970," a book review prepared by Mark Gaillard, *The Army Doctrine and Training Bulletin*, Vol. 5, No. 4, Winter 2002-2003, pp. 79-81.

The author of the book, Sean M. Maloney, PhD, writes...

It is common for those that engage in "spin," that is, the manipulation of perceptions for political purposes, to purposefully ignore inconvenient facts and selectively use information to make a case. We expect diplomats to do that on behalf of our country against foreigners we want manipulated to further Canadian interests. We should not expect such tools to be employed against citizens and historians who are trying to ascertain the actual fabric of Canadian history and political culture so they can make informed decisions. In his attempt at reviewing *Canada and UN Peacekeeping—Cold War by Other Means, 1945-1970*, Department of Foreign Affairs and International Trade representative Mark Gaillard chooses to focus on peripheral issues rather than examining the main thesis of the book. Since he has focused on the periphery instead of highlighting other important issues that affect Canadian policy makers and soldiers, so be it. I will meet him on that ground.

It is indisputable that there is a commonly held perception in Canada that a Canadian, Lester B. "Mike" Pearson, invented UN peacekeeping. This perception has been successfully exported and continues to live on in the media and popular culture. Canadians do not distinguish between inventing UN peacekeeping and inventing UNEF.

Invent: "create by thought; devise; originate."

Mike Pearson did not invent UN peacekeeping.

The use of military forces for peacekeeping missions was conceptualized in Canada by a number of anonymous staff officers working on the Joint Planning Committee in 1948 for then-Chief of the General Staff, Lieutenant General Charles Foulkes, eight years before the events of the 1956 Suez Crisis.

Canadian Brigadier H. H. Angle and his subordinates were practising UN peacekeeping in the Kashmir starting in 1949, seven years before the events of the 1956 Suez Crisis. They had to create a force and devise how it would operate. The origins of the UN operation in Kashmir lay in discussions between (Canadian) General A.G.L. McNaughton and Zaffrullah Khan of Pakistan.

Canadian Lieutenant General E.L.M. "Tommy" Burns, and his subordinates were practising UN peacekeeping in the Middle East starting in 1954, nearly two years before the events of the 1956 Suez Crisis. The origins of the UN operation in the Middle East lay in part with the 1948 conceptualizations of Count Folke Bernadotte, who wanted an armed UN peacekeeping force for Jerusalem.

Mike Pearson did not invent UNEF.

Lieutenant-General Burns believed that the existing multinational UN force in the Middle East was inadequate, required more firepower, wanted the ability of such a force to intervene and suggested so in diplomatic discussions in November 1955, regardless of who was listening in Ottawa. Burns had previously discussed this with UN Secretary General Dag Hammarskjold and his assistant Andrew Cordier prior to his meeting with the British Foreign Secretary. His conception of such a force was not radically different from what was deployed in 1956, that is, UN troops intervened between the armed forces of the parties. Hammarskjold and Cordier

were instrumental in introducing a UN peace force idea into UN forums at various times during the 1956 Suez Crisis, as Mr. Gaillard admits in his review. They were, therefore, already aware of such conceptualizations long before Pearson brought "his" idea to them in November 1956.

Invent: "create by thought, devise, originate."

The 1 November 1956 Cabinet meeting data expansively cited by Mr. Gaillard (which forms the bulk of his "review") does not contradict, as he snidely asserts, the events of November 1955 that I describe in chapter 3. Pearson suggested that an international peace force be formed for the Middle East in 1956, and Burns suggested that one be formed back in 1955. Which came first?

Invent: "create by thought, devise, originate."

I would further suggest that it is one thing to conduct diplomacy in the comfortable environs of New York (cajole, impress, manoeuvre, manipulate, bargain, i.e., talk) and it is quite another to plan for, assemble, physically deploy and then command a multinational force, particularly in violent and dangerous environments like the Kashmir and the Middle East. Invent versus implement: which should receive more recognition? You decide. Without Burns' imagination, skillful diplomacy and persuasion, there might have been a UNEF, but it would not have succeeded in its mission. Burns had built up personal relationships with the belligerent leaders involved in the Middle East crisis over several years, relationships that the very busy globally-occupied Secretary of State for External Affairs Pearson could only have dreamed of having, since he only encountered those leaders on a sporadic basis.

As I pointed out in the conclusion to the book:

Finally, we must seriously re-assess the relative importance of Lester B. Pearson in the development of Canadian UN peacekeeping. It is clear that Canada acted as part of a team with her allies in many of the crises handled by the United Nations during the subsequent diplomatic manoeuvrings. It is equally clear that Paul Martin played as positive a role in averting war over Cyprus as Pearson had in the Suez Crisis of 1956. It is absolutely critical that senior Canadian military personnel receive equal recognition, particularly Generals E.L.M. Burns and Foulkes, as well as many staff officers who assisted them in conceptualizing and implementing Canadian peacekeeping operations.

I stand by this conclusion and the facts bear me out. "Relative importance." Insufficient recognition has been given to Foulkes, Burns, Angle, McNaughton and their staffs. Show me a Canadian who even knows who these men were and what their relationship to UN peacekeeping was. Their contributions are not taught in any high school or university that I know of. Nobody makes movie or TV documentaries about them or their exploits, and there are no biographies, statues, stamps, holidays or any other cultural recognition. These men died in obscurity, while another has been transformed into a national icon by the machinations of those who choose to misunderstand his motives. Those who are members of the successor organization to the Department of External Affairs should stop being overly protective of "their" man and should stop arrogating to themselves the credit for the events of those dark days of the 1950s, events which happened long before they were born. More magnanimity is called for from such people, particularly with regards to Canada's military leaders, their soldiers, and their accomplishments in the realm of peacekeeping.

Readers of the Army Doctrine and Training Bulletin are invited to share their opinions...