



# THE CANADIAN ARMY JOURNAL

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# THE CANADIAN ARMY JOURNAL

## CANADA'S PROFESSIONAL JOURNAL ON ARMY ISSUES

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The Canadian Army Journal, a refereed forum of ideas and issues, is the official quarterly publication of Land Force Command. This periodical is dedicated to the expression of mature professional thought on the art and science of land warfare, the dissemination and discussion of doctrinal and training concepts, as well as ideas, concepts, and opinions by all army personnel and those civilians with an interest in such matters. Articles on related subjects such as leadership, ethics, technology, and military history are also invited and presented. The Canadian Army Journal is central to the intellectual health of the Army and the production of valid future concepts, doctrine, and training policies. It serves as a vehicle for the continuing education and professional development of all ranks and personnel in the Army, as well as members from other environments, government agencies, and academia concerned with army, defence, and security affairs.

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This issue is respectfully dedicated to



Mr. J.G. 'Jack' DeProse  
First Editor of the  
*Canadian Army Journal*  
(1947-1965)

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# EDITORIAL—ON LEGACY

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Major Andrew B. Godefroy, CD, PhD

At a recent lecture I attended in the United States, a prominent author and historian of the Soviet-German War on the eastern front (1941-1945) related an interesting tale about the evolution of scholarship in his field. He noted how since the end of the Cold War there was a marked increase in amateur and private scholarship and writing on the subject, driven largely by Russian battlefield archaeology groups attempting to locate the remains of Soviet soldiers killed during the Second World War. For these 'new' historians their task remains a formidable one, not helped by the fact that official records and historical publications concerning the Second World War on the eastern front are seldom perceived as accurate or forthcoming.

To make matters even more difficult, the Red Army had employed cardboard dog tags, which obviously did not survive the rigors of service, never mind the natural elements once buried. Worse still, the historian noted, dog tags ceased to be used altogether in 1942—the same year that the Soviet Army stopped recording individual deaths by name.<sup>1</sup> Combined with a general lack of access to military archives as well as a lack of published historically accurate official military history, these scholars have increasingly turned to western as well as Australian sources for details about fighting on the eastern front.<sup>2</sup> When asked by these Russian groups for advice about how to improve the situation, the historian advised, "write your own history before someone else does, and don't wait forever to do it."

The recording of the Canadian Army's legacy has always been a difficult task. In his study of Canadian historians and the writing of the World Wars, historian Tim Cook related in considerable detail the trials and tribulations suffered by the Army's official historians to produce their narratives in a timely fashion. One is also surprised to learn how narrowly the official history of the Canadian Army in Second World War escaped being swept into a filing cabinet somewhere in Ottawa never again to see the light of day.<sup>3</sup> It is also sad to observe that the last official history of the Canadian Army, covering the exploits of the 25<sup>th</sup> Canadian Infantry Brigade in Korea, was published in 1966.<sup>4</sup> (To be fair, however, it should be noted that the official history of the Gulf War, *Operation Friction*, does include sections dealing with Army operations during that conflict.)

The organizations at one time responsible for the publication of official Army histories have since evolved over the last few decades to cover a wider range of tasks. Though official projects persist to some degree and efforts are ongoing to capture the Army's record in Afghanistan and elsewhere, there are simply too few official resources devoted to this effort. Instead, recording of the Army's legacy has largely if unofficially transferred over to outside professional and amateur historians. To its credit, this dedicated community has produced a number of critical and lasting works, but their ranks are also too few and interests too condensed to cover the many areas of the Army's history and legacy that require attention. The lion's share of these scholars, enthusiasts and their aspiring students and followers are firmly focused on the Army's exploits between 1914 and 1954 (from the First World War to Korea), leaving Canadian Army developments and exploits outside of these three major wars largely unexamined. This is more than a little disconcerting given that the Korean War ended over a half century ago. What of the Army's legacy since then?

In the absence of major works, contemporary periodical publications must often fill the gap to capture this legacy. When the *Canadian Army Journal* was created for the first time in 1947, it in effect became the first and perhaps most important source of the

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post-war Canadian Army. The articles published within, in effect, created a tapestry of the critical and relevant issues of that time, and tell us much about how the Canadian Army evolved through the Cold War and beyond. Today, *The Canadian Army Journal* has very much the same mandate it did six decades ago. Where one time long ago authors penned articles about the atomic battlefield and operations in the Congo, today we host articles ranging from Army transformation to combat operations in Afghanistan.

I have dedicated this issue of the journal to recognition of that legacy. From the retro cover to the short history of the CAJ and its editors, to the wide range of articles, notes, reviews, and biographies within, this issue humbly acknowledges its role as the primary publication for professional debate and development in the Canadian Army. Most important, however, it exists because of the soldiers and scholars that write for it, because of the dedication of the Army Publishing Office charged with its production, and due to the outstanding Army leaders who believe in its purpose. In every sense, *The Canadian Army Journal* is a success because the Army understands the importance of legacy, the debate surrounding it, as well as its preservation for future generations.

Next issue will mark the completion of my third year as editor of this journal. I'd like to think that I've made a mark on its improvement, but I also realize that there remains much work to do. As I continue to feed its evolution, beginning next issue I am introducing two new features. I receive quite a few emails and calls every month asking me what I'm reading and whether I can recommend a good book on a particular subject. As a result, beginning next issue at the end of my editorials, I will include a small blurb titled 'On the Editor's Desk', which will highlight whatever book I'm currently reading. In keeping with good professional development, I try to read at least one good book per month, so I will offer up the most promising of those I read in a quick recommended pre-book review. I will then later write a full review for the journal, and see if my prediction played out.

The second new feature will be the Army biography section. Every issue will introduce one officer and one enlisted soldier who made a mark on the history of the Canadian Army. The aim is not to rehash the exploits of our Victoria Cross recipients or other well-known and well-publicized Canadian soldiers. Their stories are already easily accessible to the wider readership. This feature is instead dedicated instead to bringing distinguished Canadian soldiers out of obscurity and into the light. The legacy of the Canadian Army is built on the shoulders of remarkable men and women. This section will introduce them to you.

As always, I welcome your comments, recommendations and suggestions for improvements. This journal belongs to the Canadian soldier; as its humble steward I thank you for your commitment to its success. Enjoy the issue, and I look forward to hearing from you.

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## Endnotes

1. David Glantz. "The Fight for Stalingrad: New Sources and Documents". Presentation given at Historicon 2007, Lancaster, Pennsylvania, July 2007.
2. For example, Australian publisher, Leaping Horsemen Books, specializes in the production of high quality and superbly researched histories of the Battle of Stalingrad as well as the Eastern Front war in general.
3. Tim Cook. *Clio's Warriors: Canadian Historians and the Writing of the World Wars*. Vancouver: University of British Columbia Press, 2006.
4. Lieutenant Colonel H.F. Wood. *Strange Battleground: The Operations in Korea and Their Effects on the Defence Policy of Canada*. Ottawa: Queen's Printer, 1966.

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# ARMY NEWS—THE ALL SOURCE INTELLIGENCE CENTRE

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Major Gordon Ohlke, CD

*It is the law as in art, so in politics, that improvements ever prevail; and though fixed usages may be best for undisturbed communities, constant necessities of action must be accompanied by the constant improvement of methods. Thus it happens that the vast experience of Athens has carried her further than you on the path of innovation.*

From the Corinthian remonstrance of the Spartans and their failure, despite military strength and reputation, against Athens, as related by Thucydides, *The Peloponnesian War*, Book 1, Chapter 71 written circa 430 BC.<sup>1</sup>

On 18 Oct 2006, a working group was held at the Directorate of Army Doctrine to capture the current situation and potential future development of the All Source Intelligence Centre (ASIC). The discussions highlighted the changes in intelligence support to land force operations since the end of the Cold War and served to illustrate the reasons for the ASIC's current structure and concept of operations.

## Background

During the Cold War, intelligence architecture was developed to support a division in a defined area of operations. Today, the same intelligence architecture is deployed in support of a Battle Group in an area of operations often several times larger than that planned for in Central Europe. The contemporary operating environment (COE) requires comprehensive and layered intelligence, surveillance, target acquisition and reconnaissance (ISTAR) assets in order to attain and maintain information superiority, which will enable the precise engagement of stealthy and fleeting targets. Collectively, the exploitation of these systems provides precision guidance to fighting assets, which is defined as intelligence-led operations, in the employment of a range of capabilities to cause and measure effects across the physical and cognitive planes. Full spectrum operations require the support of full spectrum intelligence capabilities and organisations (J/G2 Staff, Intelligence Line Unit and a National Intelligence Centre (NIC).

Effectively, the growth and capability of ISTAR systems and procedures are manifestations of the shift from industrial age warfare to information age warfare. This shift in perceptions began for the Canadian Forces (CF) in the 1970s with various combat development studies. Drawing from United States Army experiences and concepts, specifically that of the Military Intelligence (MI) unit, Canadian Army planners and doctrine writers began to explore ways of managing the ever increasing flow of information into headquarters and to develop better methods to exploit this information.

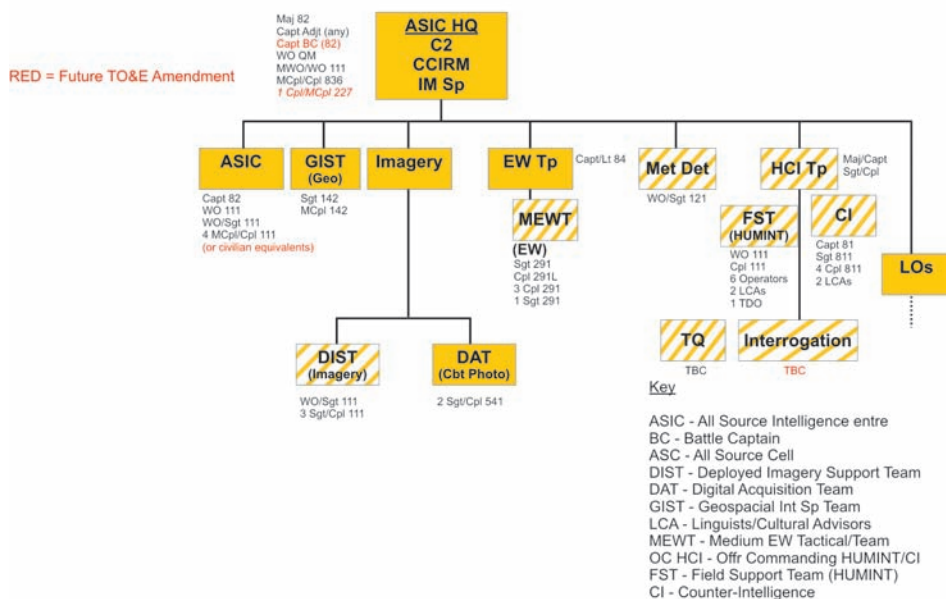
Throughout the 1980s and 1990s there were experiments, exercises and actual deployments involving an organisation known as the Intelligence Collection and Analysis Centre (ICAC). The ICAC was able to process more effectively tactical information from units subordinate to its parent headquarters. It was also able to better integrate information and intelligence from flanking and higher headquarters. Essentially, the ICAC relieved the G2 staff of much of its responsibility for detailed information collection management and intelligence processing. By providing a focal point for all-source analysis, the ICAC also overcame the problems brought about by "stovepiped" information and circular reporting. In its early configurations, the ICAC was hampered by weak communications infrastructure, the need to rediscover, re-establish, integrate and apply older intelligence skills, e.g. human intelligence (HUMINT), and the



development of new skills and capabilities, e.g. open source intelligence (OSINT) derived from “web surfing” and the highly technical measurement and signature intelligence (MASINT). Originally viewed as an adjunct to G2 staffs, the ICAC came to form the nucleus of an intelligence line unit. The 1<sup>st</sup> Canadian Division Intelligence Company (1 Int Coy) was formed in 1989 at Kingston, Ontario.

Beginning in 1986 with the Combat Development (CD) study, which led to the concept of Corps 86, the concept of the Intelligence Company was clearly defined as a line unit with organic analytical capability with provision to take under command for force employment various collection systems. During Exercise RV 85 and 87, existing skill sets and available personnel permitted only the trial establishment of an ICAC, plus Geomatics (Geo), Meteorology (MET) capabilities and its organic administration and information technology (IT) support. Subsequently, when 1 Int Coy was formed in 1989, additional provision was made for HUMINT, counter Intelligence (CI), and Imagery Exploitation (IE). The “team approach” to intelligence collection and processing inherent in 1 Int Coy and its ICAC on various operations was described as a transition to an “intelligence combat team” in that it assisted greatly in overcoming the problem of information “stovepipes”. The IT restrictions of the day caused limitations in that there was no capability for real time constant links to national strategic systems and agencies. Another challenge was that the budget of 1989 reversed many initiatives and froze 1 Int Coy at its implementation levels of manning and equipment. Nonetheless, 1 Int Coy successfully supported domestic and expeditionary operations, most notably the Oka Crisis (Op SALON) in 1990 and operations in the Balkans throughout the remainder of the decade. Although 1 Int Coy was disbanded in Land Force reorganisation in 2001, each CF deployment has seen the reformation of a similar capability on an ad hoc basis.

## Generic All Source Intelligence Centre (ASIC) (Expeditionary - in-Theatre)





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## All Source Intelligence Capability Continuity

Parallel developments have taken place in the NATO environment. NATO agreed that a deployed headquarters requires an “all source cell” (ASC) to support a G2 or J2 staff in intelligence processing. Essentially, the ASC is an ICAC. In Canada, it was recognised that the United States Army Military Intelligence (MI) unit concept was a valid construct that could be adjusted to scale. Further, that the 1 Int Coy had existed as an effective equivalent structure to that of the US Army and it was scalable to a platoon sized structure appropriate to a Canadian brigade or brigade group. Therefore, the CF establishes an “all source intelligence centre” (ASIC) on operations, to house the intelligence unit headquarters, an ASC and to accommodate other intelligence and intelligence-related line functions. **Thus, one may view an ASIC as equivalent to an Intelligence Company.** Unfortunately, however, at present there is no permanently established ASIC and all deployments are solely based on the ad hoc force generation of task-tailored structures to meet the estimated requirements of the theatre in question.

### ASIC Operations

The ASIC is established through force generation activities and deploys as part of a rotation (Roto). The equipment that Roto 0 brings into theatre remains there, subject to upgrades, and is manned by subsequent Rotos. Modern communications and information technologies enable the ASIC to provide a centre for the collection and processing of all combat information and single source intelligence gathered and produced by the subordinate units and organic collection assets of the Canadian operational command. In addition, it will receive the intelligence materials of flanking and higher headquarters for the same purposes. Critically, it will provide “reach back” to Canadian and allied national intelligence systems and agencies. The end result is that the commander has a system that provides a single point of focus wherein “stovepiped” information is brought into the light of day and integrated with materials generated by higher and flanking headquarters.

The ASIC is the central hub for intelligence collection, collation and analysis. **It is crucially important to understand that the ASIC is a line unit and not a staff element.** Thus it is organised with a C2 node complete with a commanding officer. The complex of personnel, capabilities and processes indicate, as they did in the days of 1 Int Coy, that a line organisation is necessary for effective command, control, administration and maintenance of security. Officers of the G2 or J2 staff would soon discover that they would be spending little time on their primary and well-defined tasks if they had to undertake these traditional line functions too.

The G/J2 staff is involved in activities in response to the commander and other staff branches, specifically G/J 3 and 5. The G/J 2 staff must present the intelligence aspect of situation awareness with timely reports and summaries and support the operational planning procedure (OPP) through the estimate process, including the conduct of intelligence preparation of the battlespace (IPB). The G/J2 is responsible for the assessment of enemy centres of gravity, intentions, capabilities and courses of action. Thus, intelligence staff effort is in the context of direct and continuous interaction with the commander and the operations and planning staffs. The responsibilities of the G2 and staff are related to, but distinct from those of the ASIC.

### Concept of Operations

At the time of writing this article, the ASIC has been placed under the command of the Canadian theatre commander who is also the commander of the National Command Element (NCE). Nonetheless, the ASIC serves numerous clients. In Afghanistan, for

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example, they include the Battle Group, the Provincial Reconstruction Team, the Operational Mentoring and Liaison Team (OMLT), the Canadian Special Operations Regiment detachments and the National Support Element (NSE)

## **Primary Tasks**

The ASIC is designed to produce combat intelligence to support full spectrum operations, including, for example, targeting, which has both lethal and non-lethal aspects, with non-lethal aspects having engagement options of both physical and cognitive means. The ASIC is also responsible to support situational awareness and force protection for all Canadians in the area of operations.

## **Secondary Tasks**

Secondarily, the ASIC will coordinate intelligence support to sensitive site exploitation (SSE) operations. It will provide tactical in-theatre “technical oversight”, for SIGINT (through SIGINT authority), Geomatics (through the Geomatics support team) and HUMINT (Through the OC HCI). The ASIC will respond to requests for information (RFIs) from Canadian and Allied (ABCANZ) intelligence elements.

## **Technical Considerations**

In the provision of the ASIC capability, the technical challenge is that the ASIC uses more than half the available national communications bandwidth for “reach back”. Significant tactical communications resources are dedicated to ensuring that intelligence is pushed forward to BG and Coy headquarters. In future, the ASIC will certainly require a dedicated communications backbone with links to company or combat team level. The reason for this is that in dispersed operations, which require highly articulate leadership; the focus of execution will often be at this level of command. Therefore, it will become vital to capture relevant information acquired at company/combat team level and provide this level of command with intelligence feeds from higher sources and agencies. This will enhance the agility of the entire battle group. Operationally, the caveat is one of security. The placement of the ASIC may have to be discrete from its supported headquarters because not all coalition participants may be given access to its processes and products. The requirement for effective comms and IT to overcome such a necessary “air gap” must not be underestimated.

## **Conclusion**

Apart from the fact that the ASIC is an evolutionary capability, which has theoretically anticipated the age of information warfare, in a practical sense, it is demonstrable that the ASIC is a force multiplier. This is made manifest in the way the ASIC groups or accesses enablers to expand capabilities as implied in doctrine. In the past, the G2 was responsible for the production of combat intelligence, which is defined as follows: “Combat Intelligence is that intelligence concerning the adversary, weather and terrain, required by a commander in the planning and conduct of combat operations. Essentially it is limited to a consideration of these factors within bounds of a commander’s area of interest.”<sup>2</sup> In the past, combat intelligence would be derived from single source reporting from organic capabilities such as EW elements, counter intelligence (CI) detachments and troops in contact plus periodic reports and summaries from higher and flanking headquarters. Currently, in a theatre of operations, the ASIC remains responsible for the production of combat intelligence; however, the scope of combat intelligence is greatly enhanced by the addition of organic systems, such as HUMINT detachments, tactical uninhabited air vehicles (TUAV), integrated joint systems (Aurora or allied equivalents). Additionally, the ASIC has the capability to reach back in

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real or near real time via web based communications and IT to national data banks, agencies and analysts. This capability gives access to measurement and signature (MAS) intelligence, cultural intelligence and open source intelligence (OSI).

The ASIC will “bundle” these individual stovepipes and make their several outputs relevant to the production of integrated and timely combat intelligence in the interest of overarching situation awareness (SA), the conduct of expanded intelligence preparation of the battlespace (IPB) and battle damage assessment (BDA). In the normal course of its activities, the ASIC will also produce intelligence that is useful at the operational and strategic levels of command.

The ASIC concept continues to evolve and to expand its capabilities in lock step with technological advances. Given the flexible nature of the ASIC concept in terms of structure and scale, it will continue to be a feature of future deployments in all operational settings.

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## Endnotes

1. Thucydides (the Crawley translation), *The Peloponnesian War*, The Modern Library (New York, 1982), p 41.
2. B-GL-357-001/FP-001 *Field Manual Intelligence* page 6.

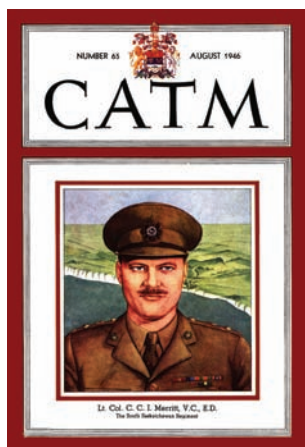


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# THE CANADIAN ARMY JOURNAL

## 1947-2007

Major Andrew B. Godefroy CD, PhD



The Canadian Army Training Memorandum (CATM) was the Army's professional development journal during the Second World War and immediately after. It was replaced by the Canadian Army Journal in 1947.

There are many forums where armies may debate aspects of their profession, but few have a more permanent impact on the legacy of their institutions than professional journals. *The Canadian Army Journal* (CAJ) and its various predecessors have served as the primary tool for professional debate in the Army since the nineteenth century. This brief article provides an overview of those forms and traces their evolution through to the present day.

Canadian Army-related professional journals have existed for some time. The *Canadian Militia Gazette* and later *Canadian Military Gazette* ran from 1885 through to 1943. These were accompanied by *VRI Magazine* (1894-1897) and the *Canadian Field* and *Canadian Defence* magazines (1909-1916), followed after the war by the creation of an all services journal, *The Canadian Defence Quarterly*. During the Second World War the Army published, *The Canadian Army Training Memorandum* (CATM), a doctrinal and training bulletin than ran from 1941 until 1947.

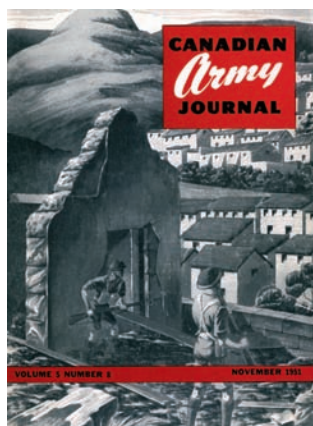
The CATM was replaced after the war by a new bilingual service publication simply titled *Canadian Army Journal*. At the head of its editorial board sat three distinguished veteran officers, Brigadier W.A. Milroy DSO CD, Colonel S.C. Waters

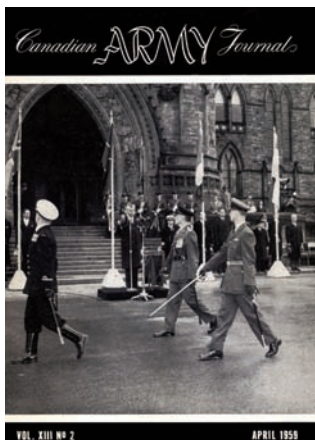
CD, and Colonel V.R. Schjelderup DSO MC CD. The Army selected Mr. Jack G. DeProse, a civilian, as editor. With a tiny staff (ed. note—some things never change) consisting of an editorial assistant, a staff artist, and a draughtsman-photographer, Mr. DeProse was assigned the daunting task of producing the Canadian Army's capstone professional journal on a quarterly basis. His mission was straightforward, "...provide the Canadian Army with information designed to keep it abreast of current military trends, and to stimulate interest in military affairs."<sup>1</sup>

In its early years *Canadian Army Journal* served as a form for Army news, updates, the discussion of emerging trends and the publication of

history. Ideas such as the future of airborne, atomic and arctic warfare were discussed, as were the transformation of infantry towards mechanization and the new roles of the service and support branches. The Army's official historian, Colonel C.P. Stacey, published several articles.

Army operations in Korea (1950-1954) presented an immediate issue for debate





then much in the same way that Afghanistan is discussed in the CAJ today. During this period the journal also changed its stripes. The thin 8x11 red and yellow covered journal (reproduced on the cover of this issue) was replaced by a smaller but thicker pocket sized edition. The covers started carrying illustrations, often of a historical nature, and the masthead went through a few changes. Another notable aspect was the fact that almost the entire content was



The last issue of the first inception of the Canadian Army Journal, Summer 1965

indigenously produced. Almost half of the content of the early postwar CATM was derived from republishing foreign sources, but by the early 1950s this practice had stopped. Army officers were once again writing for themselves, and the value of this was reflected in the journal through the remainder of the decade.

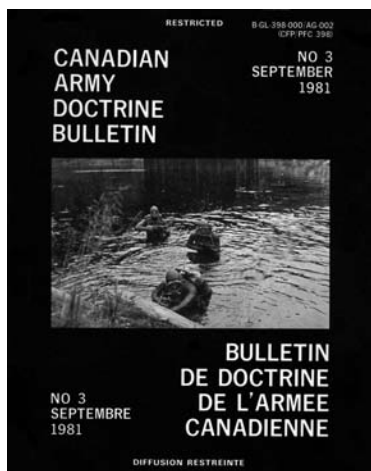
*Canadian Army Journal* also served to promote the high quality of Canadian Army writing in other professional forms. For example, in 1964, it was noted that Captain Francis J. Norman, RCR, had won the British Army's Bertrand Stewart Essay Prize for his submission on the effects of night vision equipment on battlefield mobility. He was not the first Canadian to win the essay prize either. Previously, Lieutenant-General E.L.M. Burns had won the award twice, in 1932 and again in 1936.

Despite its strong independence, *Canadian Army Journal* could not escape the dynamic changes underway within DND during the mid-1960s. In 1965 DND decided to phase out its separate service publications in support of the unification process then currently underway. The editor and staff of *Canadian Army Journal* were informed of the pending cessation of their publication and tasked to prepare their last issue for release in the summer of that year. Mr. DeProse, who was still serving as editor, sadly prepared his publication for closure.

The last issue of *Canadian Army Journal* (Vol.19: 2) was released in June 1965 carrying a number of farewell statements and thanks for nearly two decades of service. There were many promises that the new tri-service publication, *Sentinel* would be a more than adequate replacement for *Canadian Army Journal* and its two sister publications, the Navy's *Crow's Nest*, and the Air Force's, *Roundel*. In the end the *Sentinel* proved to be a good publication, but its thin magazine format and newspaper journalistic style made it unable to serve as a proper forum for professional debate. The Army had to turn elsewhere to carry on this tradition.

Between 1965 and the end of the Cold War, the Army published a number of various in-house forums—including branch and regimental journals—in the absence of an overarching Army periodical. The three combat arms—infantry, artillery and armour—all produced their own in-house journals and bulletins. Engineers and logistics also published effective journals. Meanwhile, the Army's central organizations focused on publications related to specific topics such as conceptual and doctrinal design, training, safety, and lessons learned. Among these various publications, *The Canadian Army Doctrine Bulletin* (CADB) is notable in that it served as the catalyst for reintroducing an Army-wide periodical publication back into the Army.





The Canadian Army Doctrine Bulletin appeared in 1981.

First published in 1980, the CADB produced a number of articles dealing with defence doctrine, airmobile operations, tactical aviation, human dimensions in battle, as well as various advances in tactics, techniques, and procedures. The CADB was produced on a roughly biannual basis until 1993. Further changes within DND during this time led to the cessation of most Army publications, including many of the various branch and in-house journals and bulletins. *Sentinel* magazine continued to run during this period but its content grew thinner. A new Army-wide publication would not appear in the Army for several more years.

After considerable internal effort and debate, in August 1998 the Chief of Land Staff authorized the publication of a revamped and very much upgraded *Army Doctrine and Training Bulletin* (ADTB) for, "the dissemination and discussion of doctrinal and training matters, leadership, technological, conceptual, ethical,

and historical issues as they relate to the Army."<sup>2</sup> Under the managing editorship of Captain John Grodzinski, the ADTB rapidly evolved to become the new forum for professional debate in the Army. In addition to a number of senior officers and NCOs writing for the journal, the publication attracted considerable interest and participation from Canada's leading military historians and scholars.

The ADTB's arrival on the scene was fortuitous for the Army. Very much the old *Canadian Army Journal* in disguise, it matured at the same time that the Army entered a period of tremendous transformation, and as such it became a focal point for many serious discussions that later influenced larger decisions within the Land Force. Soon reaching past its title, the ADTB swiftly became the capstone Army journal that its leadership needed and wanted.

In 2004, Major Shane Schreiber succeeded Major Grodzinski as managing editor. Though his own tenure at the helm of the publication was brief, Schreiber built on the solid foundation laid by his predecessor and completed the transformation of the ADTB during its seventh year of publication into *The Canadian Army Journal* that we know today. Since then, successive editors have guided the journal as it continues to serve as the Army's primary forum for professional ideas and debate.

This year the CAJ celebrates its tenth year of uninterrupted publication and its sixtieth year since first inception. Looking back at its history one cannot help but feel proud of its accomplishment, and be honoured to be part of its continued legacy.

### The Army Doctrine and Training Bulletin *Canada's Professional Journal on Army Issues*



Published Quarterly  
Volume 1, Number 1,  
August 1998



Back in business. The Army released the First Issue of The Army Doctrine and Training Bulletin (ADTB) in 1998.

## Endnotes

1. Mission statement. *Canadian Army Journal* Vol. 19: 2 (1965).
2. LGen B. Leach, "Guest Editorial", *The Army Doctrine and Training Bulletin*, Vol.1.1 (August 1998), 3.

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# THE ROLE OF THE ARTILLERY IN AFGHANISTAN

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Captain David W. Grebstad, CD, BA

Since the close of the Cold War and the advent of the global campaign against terrorism the doctrinal focus of the Canadian Army has undergone a paradigm-shift from an organization conducting operations within a conventional linear context, to one that has been presented with the challenges and characteristics of a non-linear, non-conventional and often asymmetric threat. Several theorists have attempted to quantify the characteristics of this new paradigm. General Charles C. Krulak, past Commandant of the United States Marine Corps (USMC), referred to the new paradigm as the “three block war” in which he described operations in the 21<sup>st</sup> century as a variety of challenges that span the spectrum of conflict and can occur within three city blocks. Within these three blocks, soldiers could be found engaging in a variety of activities ranging from humanitarian assistance to peacekeeping to traditional warfighting operations.<sup>1</sup> As General Krulak observed “the end of the Cold War heralded not the hoped for era of peace, but rather, a troubling age characterized by global disorder, pervasive crisis and the constant threat of chaos.”<sup>2</sup>

This change in the paradigm of conflict has produced a concomitant requirement to change the way the Canadian Army does business. In particular it is no longer sufficient for the Army to focus solely on the destruction of the enemy, as the new paradigm of conflict demands greater interaction with the populace specifically during operations in failed and failing states. In recognition of this new paradigm, the Government of Canada (GOC) has adopted a whole of government or comprehensive approach to conflict in the Contemporary Operating Environment (COE). This will encompass a broader, multi-agency approach to stabilizing failed and failing states in which the Canadian Forces (CF) are but one part of the total GOC effort.<sup>3</sup> It is in this context that the awesome lethality of CF elements and the battle winning combat power of the field artillery must be properly employed to reflect the realities of the new paradigm of conflict.

In the spring edition of the Canadian Army Journal, Lieutenant Colonel Wayne Eyre articulated this realignment of doctrine by proposing a new role for the infantry in what he referred to as “the war of the snakes.”<sup>4</sup> Eyre observed that the classic infantry role of “close with and destroy the enemy” while consistent with the reality of what General (Retired) Rupert Smith calls interstate industrial war<sup>5</sup>, needed to be broadened to address the realities of the COE. This is particularly evident in the infantry’s requirement to establish contact the local population whilst still conducting combat operations to eliminate the enemy. To this end, Eyre proposed a dual-aspect role of the infantry, to:

- (1) close with and *engage* the population; and
- (2) close with and *destroy* the enemy.

The latter role is one that the artillery has supported throughout its history with great success. This paradigm of conflict—industrial interstate war—has changed, and the context in which the field artillery found itself as the predominant tool of warfighting, has been replaced, temporarily at least, with the realities of the COE. If the infantry and others are to be successful in the COE, the artillery must properly apply its effects in order to ensure that the destruction and collateral damage that are inherent in its fires, sets the stage for the successful engagement of the population. It is essential that in



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order to maintain proper fire support for the Infantry, the field artillery must also review its role within the context of the COE.

## **A New Role for a New Paradigm**

Throughout the Canadian involvement in Afghanistan, the field artillery's role has broadened in scope and composition. Assets deployed to that theatre of operations have grown from the initial deployment of a troop of mortars to support 3<sup>rd</sup> Battalion, Princess Patricia's Canadian Light Infantry (PPCLI) Battle Group (BG) during Operation APOLLO, to our current commitment of a robust battery centred around four 155 mm M777 howitzers supporting Operation ARCHER. Canadian field gunners have proven highly flexible in modifying, amending and introducing successful tactics, techniques and procedures (TTP) to reflect the reality of the COE. As the goal of the field artillery is to set the conditions for success by shaping the battlespace with fire and effects, it would be beneficial to align a new role of the field artillery with the dual-aspect role of the infantry as submitted by Lieutenant Colonel Eyre.

The purpose of this article is to attempt codify a new role for the field artillery in the COE and, consistent with the dual-aspect role of the infantry, address the core competencies required by the field artillery in order to continue to ensure effective fire support for Canadian Army operations.

## **The Contemporary Operating Environment**

The specific characteristics of the COE have been discussed at length, both in this publication and others. An exhaustive examination of the characteristics of the COE is not necessary at this juncture, however, as the aim of this paper is to define a new role for the field artillery consistent with a dual-aspect role of the infantry, it would be prudent to summarize the characteristics of the new paradigm of conflict as presented by Lieutenant Colonel Eyre. These characteristics include<sup>6</sup>

- ◆ future operations will be conducted in failed and failing states;
- ◆ populations are migrating to urban centres, including these states;
- ◆ future enemies will be embedded within the general population to avoid Western conventional force overmatch;
- ◆ globalization has enhanced the effectiveness of human networks and facilitated rapid information flow;
- ◆ globalization has further compressed the strategic, operational and tactical level of operations to the point that events at lower levels may have significant impact at higher levels; and
- ◆ conflict has taken on the added complexities of sophisticated and highly adaptable insurgencies.

The structure of the population as part of the COE is an extremely important concept to grasp. If we aspire to victory in the COE, it is imperative to understand the importance of context, specifically an in-depth appreciation of the society and culture within which we are conducting operations. In any asymmetric context the populace is comprised of three coexisting groups: Group One which is openly hostile to Canadian and allied operations, Group Two which is neutral, or at worst apathetic to our operations, and Group Three which is supportive of our operations and friendly towards our forces.<sup>7</sup> In order to realize the full potential of the field artillery, it is beneficial to determine a proper



A 105mm LG1 Mark II firing in Kabul, Afghanistan



A Troop of 155 mm M777 howitzers from A Battery, 1<sup>st</sup> Regiment Royal Canadian Horse Artillery (1 RCHA) on operations in Afghanistan.

role and doctrine to facilitate the neutralization of Group One elements and the peaceful engagement of Group Two and Three elements.

## Operational Fundamentals

In order to successfully achieve these two goals, it is important to maintain certain operational fundamentals.<sup>8</sup> It is these operational fundamentals that will allow the field artillery to successfully support the manoeuvre elements in destroying the enemy and engaging the populace.

## Synchronization of Effects

Effects, kinetic or otherwise, do not occur in solidarity, but create further consequences of their own<sup>9</sup> which must be exploited. The employment of fire support will produce a direct effect that is observable and immediate;<sup>10</sup> however, it also has the capability to produce negative, unintended effects if not employed wisely.<sup>11</sup> The first operational fundamental that must be addressed is the synchronization of effects on Group One adherents to those in Group Two and Three.

Eyre points out “excessive firepower directed at Group One may very well alienate Groups Two and Three, especially if significant collateral damage occurs.”<sup>12</sup> There is no value in killing a handful of insurgents if the corollary collateral damage only serves to create more of them.<sup>13</sup> This has very direct ramifications for the field artillery and how it conducts its operations. As the field artillery is responsible for the coordination and application of the greatest amount of combat power in the battle space, it is imperative that this combat power is accurately employed to neutralize Group One elements without adversely affecting those members of the populace who fall within the definitions of Group Two and Three. This can only be achieved by ensuring the accurate engagement of enemy forces with a minimal amount of collateral damage to non-combatants and infrastructure. Maximizing the use of precision munitions as well as ensuring accurate engagement of targets when precision munitions are not in use can achieve this goal. In



**Impact in the hills: M777 effects during operations in Afghanistan.**

addition, to synchronise these effects with non-lethal effects on Group Two and Three elements, constant coordination and advice at all levels must be maintained by field artillery personnel.

## **Precision Munitions**

The field artillery has recognized the importance of precision, and has taken steps to ensure that its fire support is as precise as possible through the acquisition of cannon launched guided projectiles (CLGP). The Canadian Army has entered into an agreement to purchase the M982 Excalibur round, delivery of which is anticipated in spring 2007. This 155 mm projectile is guided by use of the Global Positioning System (GPS) and an inertial navigation system, and will be able to reliably engage targets with a circular error of probability (CEP) of 10 metres. It is capable of engaging targets using a variety of effects to including ground and airburst detonations. The Excalibur's ability to reliably place a high explosive round within 10 metres of a target is a significant addition to manoeuvre commanders' kinetic resources and will enable them to lethally engage Group One elements with a minimum negative impact on Group Two and Three elements of the population.

## **Non-Precision Munitions**

For a variety of tactical and logistical reasons, the use of precision munitions may not be authorized or even preferred. The COE does not negate the requirement to conduct standard area neutralization missions to neutralize, suppress or destroy enemy forces and materiel. Notwithstanding, even with the employment of non-precision munitions, it is imperative that in the new paradigm of conflict the field artillery ensures the absolute minimum collateral damage possible. These competing requirements—to engage enemy forces while limiting non-desirable effects, in particular in light of the enemy's use of the local populace and infrastructure as a shield, require accurate, responsive fires.



In order to ensure accurate, rapid engagement of targets with standard munitions, five specific technical requirements need to be fulfilled:

- 1—the target must be accurately acquired;
- 2—the location of the firing unit must be accurately known;
- 3—accurate meteorological data must be obtained;
- 4—accurate weapon and ammunition data must be known and registered in the computing device and
- 5—an accurate computing device must be in use.<sup>14</sup>

The field artillery has addressed these concerns in numerous ways in order to ensure that, even when precision munitions are not in use, fire achieves the manoeuvre commander's desired effects on Group One elements whilst not adversely affecting elements of Groups Two and Three.

To achieve this, accurate target location is acquired through the use of the Tactical Observer Fire Control System (TOFCS) using GPS and onboard Inertial Navigation System (INS) capabilities to locate a target accurately. The field artillery obtains accurate meteorological data by embedding Ballistic Meteorological elements into the battery table of organization and equipment (TOE) and co-locating these elements with the firing unit. Meteorological factors contribute to a large amount of all indirect fire inaccuracies, and the use of ballistic meteorological resources will significantly contribute to the accurate engagement of targets. The location of the firing unit is obtained through the use of GPS and the Gun Laying and Positioning System (GLPS) that will provide accurate orientation and fixation of the firing unit. This system will be further enhanced by the addition of the Digital Gun Management System (DGMS) to rapidly orient and fix the guns in location as well as providing semi-autonomous gun detachments that will significantly reduce reaction time to calls for fire. Accurate weapon and ammunition information are included in the computing device for each howitzer and are maintained through routine barrel wear measurements<sup>15</sup> and the maintenance of



Combat camera, IS2007-7300 25 June 2007 Sperwan Ghar, Afghanistan

Soldiers from D Battery 2 RCHA pull a cleaning swab through the barrel of their M777 155 mm howitzer at FOB Sperwan Ghar, Afghanistan.

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accurate gun history books and ammunition lot numbers. Finally, the Indirect Fire Control Computer Software (IFCCS) is used by the field artillery to ensure accurate and speedy computation of firing data to engage targets. Should any of these requirements not be fulfilled, field artillery forward observation officers (FOO) have utilized a technique of “creeping” fire into the target from safe locations to reduce the chance of collateral damage which may adversely influence Group Two and Three elements.

To further enhance the accurate engagement of targets, the role of the Fire Support Coordination Centre (FSCC) in synchronizing effects is imperative. The artillery commander, a battery commander or commanding officer, accompanied or represented by the FSCC Officer needs to be intimately involved in the targeting, coordination and application of fire support. The provision of advice and coordination to the infantry will greatly assist the commander at all levels of operation to tie in the proper effects to ensure they have the requisite impact on Group One targets while maintaining or improving relations with Groups Two and Three.

## **Intimate Support**

The second fundamental listed by Eyre is based on local problems requiring local solutions.<sup>16</sup> He illustrates how the compression of the levels of operation has placed greater importance on operations at lower tactical levels. In particular, he indicates, “all operations will require precise effects... local intelligence becomes the critical enabler for friendly force action.”<sup>17</sup> We have already discussed precision and accuracy, but what is important for the field artillery with respect to the second fundamental is that artillery assets need to be pushed to as low a level as possible. This may include FOOs being tasked to support platoons or even sections and may drive the requirement to split FOO parties which has follow-on ramifications on technical capability and personnel tempo. The presence of artillery assets at such a low level will ensure that rapid, accurate fires will be available, while also including the field artillery in the lower-level human intelligence collection cycle, providing excellent situational awareness all along the artillery chain of command and further facilitating the coordination and application of various types of fire support. This will significantly reduce the time lag in the sensor to shooter link and ensure accurate engagement of Group One adherents with a “boots on the ground” appreciation for the location and disposition of Group Two and Three elements.

## **Dispersed Operations**

Eyre's third fundamental has an enormous impact on field artillery operations in the COE. Eyre conceptualizes the disparate challenges presented by the COE by saying “a compartmentalized battlespace invariably necessitates dispersed tactics, decentralized command and control, and combined arms grouping and the lowest levels.”<sup>18</sup>

Classical artillery doctrine espoused the concentration of effects that resulted in a centralization of command. This allowed the artillery to mass effects at the key point to achieve the commander's intent and necessitated a relatively tight grouping of fire units. The COE, and the manoeuvre arm's requirement to disperse in order to engage the populace, has reinforced the necessity for intimate fire support. Despite an ever-increasing range capability brought about by technological innovations, artillery fire units as small as troop level (two guns), have been required to disperse throughout the battlespace in order to provide intimate direct fire support to the manoeuvre arm, a practice anathema to traditional artillery doctrine.

## **Troop-Level Operations**

Eyre contends that while smaller manoeuvre elements are being sent throughout the battlespace to engage the local population, force protection is still a priority and that

“ready access to reachback fires is a must.”<sup>19</sup> The dispatching of smaller manoeuvre units over a large distance has presented a significant demand on the field artillery. Field artillery troops have therefore found themselves deployed in support of company, and sometimes even platoon operations. Our American allies came to the same realization, observing, “...if we are to mass our combat power at the critical time and place, the distributive and decentralized operations involving every available soldier is the most feasible option for accomplishing the task. The greatest challenge for our artillerymen was how to maintain indirect fire support coverage for each manoeuvre element.”<sup>20</sup> Even the Soviets, who could be considered the greatest proponents of massed fires, adjusted their doctrine to support battalion size manoeuvre units during the Afghanistan intervention with battery or half-battery organic artillery support.<sup>21</sup>

This presents a unique dilemma for the field artillery whose doctrine concerning the size of fire units to be used on operations has evolved consistently throughout the years. At the height of the Cold War, and not too far distant from corporate memory, doctrine decreed that the regiment would be the minimum size of fire unit to engage targets. This was ideal to deal with massed hordes of Communist forces, but does not suit the post-Cold War operational environment. The deployment of A Battery in direct support 3<sup>rd</sup> Battalion PPCLI Battle Group on Operation PALLADIUM Rotation 6 in Bosnia broke established doctrine and instituted a new paradigm in fire support which would have been heresy to the gunners defending the Fulda Gap. Even to this day, any attachment of a fire unit smaller than a regiment is doctrinally considered an exceptional circumstance and may warrant consideration as a *non-standard* tactical task.<sup>22</sup> It is indicative of the changing paradigm of conflict that what was once considered a non-standard task has become *de rigueur*.

Current operations in Afghanistan have seen field artillery placed in direct support to combat teams, and deployment of the entire battery has been the exception rather



Combat camera ICS2007-7300, 25 June 2007 Sperwan Ghar, Afghanistan

Soldiers from D Battery, 2 RCHA fire their M777 155 mm howitzer at the Canadian forward operating base (FOB) at Sperwan Ghar, Afghanistan. These guns can deliver accurate fire of explosive, smoke or illuminating projectiles to a distance of several kilometres, and are used in support of infantry operations.





A M777 artillery piece of 2 RCHA firing from Sperwan Ghar, Afghanistan.

than the rule.<sup>23</sup> This, of course, presents unique challenges that the field artillery needs to address to ensure proper fire support during the COE. Currently our doctrinal organization and training is based around battery level operations and does not necessarily reflect the complexities of troop level operations. For example, how do we compensate for the lack of experience that will exist in troop level operations? To this point, junior officers employed as troop commanders or troop leaders usually had more experienced officers, such as the gun position officer (GPO) and battery captain (BK)<sup>24</sup> from whom they could draw guidance and support. With distributed and decentralized operations, junior officers no longer have this experience to draw from and must rely on the troop level command team, to include the troop sergeant major (TSM) to deal with the technical and tactical requirements of field artillery operations.

This decentralization also results in a certain isolation that presents an additional concern for field artillery firing units. Without flanking or reinforcing forces to call upon, friendly forces are compelled to deploy with sufficient force protection assets to provide for their own defence.<sup>25</sup> This presents unique challenges to the field artillery troop who are accustomed to tying force protection assets in with flanking artillery units or manoeuvre elements. Current operational experience indicates that often field artillery troops are deployed to support operations from isolated gun positions with no mutual support afforded by flanking units. This presents a unique leadership and tactical challenge that the artillery needs to address in its training of junior officers and TSMs. Force protection has become a priority<sup>26</sup> for deployed field artillery troops and the proper training and guidance must be developed for this low level leadership in order to set the conditions for effective operations in theatre.

Refining the leadership skills on the gun position is not the only realm of expertise that must be reviewed. The employment of forward observation officers (FOO), and in particular, the proximity of friendly to enemy forces in the COE, has placed a further demand on the field artillery to develop drills to engage targets in proximity to friendly forces rapidly and accurately.

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## Whither the Deep Fight?

The practice of engaging massed enemy with indirect fire at an acceptable distance from friendly forces has been pre-empted by the enemy's manipulation of the battlespace to deprive us of this advantage. Group One combatants are using complex terrain patterns and proximity to the local populace to reduce the effectiveness of Western firepower. Recent operations in Afghanistan by Canadian FOOs relate that many engagements of enemy troops occurred at significantly shorter ranges than the 600-metre danger-close safety distance espoused during linear operations. US forces indicate that the range of *deep* operations during the fight to secure the city of Fallujah, Iraq in November 2004 was 600 metres.<sup>27</sup> Canadian doctrine maintains that engagements of less than 600 metres are considered danger close and demand a specific procedure to limit the potential for fratricide. Current observations in theatre have indicated that the danger-close procedure remains valid, but is too time consuming to provide responsive fire in a situation where friendly forces were in close contact.<sup>28</sup>

It is imperative that FOOs are able to bring fire to bear on the enemy as soon as possible, even if that enemy is in close proximity to friendly forces. The Australian Army's Future Land Warfare Concept document, *Complex Warfighting* illustrates the need for a gunfighter mentality under these conditions by stating, "In a single engagement, one well-armed individual enemy may inflict a strategic defeat unless our land forces can survive a surprise first strike and hit back effectively to overmatch the enemy."<sup>29</sup>

This is almost a complete reversal of the doctrinal trend the CF recently undertook. In very recent memory, the CF espoused the doctrine of information dominance whereby intelligence, surveillance, target acquisition and reconnaissance (ISTAR) assets would locate and identify enemy forces to permit CF units to manoeuvre to strike. This particular paradigm claimed that the days of the advance to contact were over. As with any plan, however, the enemy took exception to our scheme and now "hugs" non-combatants and sensitive venues, hiding amongst the populace and pre-empting our supposed information dominance. To this end, CF elements are near-perpetually reacting to enemy operations. CF elements are finding that old is new again, and advance to contact has become the *de facto* means of closing with the enemy. This, of course, does not mean to imply that ISTAR identification of targets is ineffective, only that the enemy has pre-empted western information dominance by blending in with local population.

The COE reliance on advance to contact has created a situation in which "small units employed in stabilization operations will find it difficult—and support units impossible—to unsettle foes who strike at a time and on terrain of their choosing."<sup>30</sup> The CF's only recourse in these circumstances is rapid firepower overmatch to win the firefight.

FOOs on the ground in theatre have developed TTPs to deal with these scenarios, and the Royal Canadian Artillery School has taken steps to implement these drills as doctrine by creating a Chief-Instructor-in-Gunnery (CIG) Directive to assist deployed FOOs rapidly engage enemy combatants whilst minimizing collateral damage and providing realistic advice to the manoeuvre commander concerning the risk of fratricide. CIG Directive 39 *Engaging Targets Close to Friendly Troops-Danger Close Procedure* provides FOOs with rapidly accessible minimum safe distance tables for all CF artillery pieces. These tables will allow the observer to quickly calculate the risk of fratricide and allow the manoeuvre commander to make a timely, informed assessment concerning the employment of indirect fire. This enables CF elements to pre-empt the enemy's centre of gravity (his sanctuary from fire due to the proximity of sensitive venues and non-combatants) and apply the devastating battle-winning effects of the field artillery.

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## Balance

The final operational fundamental espoused by Eyre is that of balance. We must never forget that in our responsibility to judiciously engage the local population and contribute to nation building, we must still be prepared for the worst eventuality. Field artillery units must maintain the ability to resort to effective massed fires in support of conventional manoeuvre operations if required. The war fighting skills that were hallmarks of linear operations, though temporarily pre-empted by the new paradigm of conflict, may well have utility in another theatre against a different threat. The field artillery must not conclude that operations in Afghanistan are necessarily indicative of the characteristics of all future operations in which the CF may become involved. In his book *Another Bloody Century*, Colin S. Gray comments, "...the subject of future warfare must include both new developments and the adaptation of the traditional military skills to new circumstances."<sup>31</sup> The sound foundation of doctrine and conventions that the CF established has set the foundation from which the CF is able to deviate in response to a particular operational context. To this end, the training, equipping and employment of the field artillery must be conducted so as to provide for the successful engagement of the enemy under any conditions, in a variety of operational scenarios and across the spectrum of conflict. Notwithstanding the overall utility of precision munitions and troop-level operations, it is imperative that the skills required to conduct area neutralization and suppressive fires, as well as regimental level deployments be maintained.

## The Role of the Artillery in the COE

Having identified the demographics that are characteristic of the COE and also reviewed the operational fundamentals of field artillery operations therein, we can begin to determine a new role for the field artillery. Consistent with Eyre's dual-aspect role of the infantry, the field artillery can also adopt a dual-aspect role.

As the infantry move to "engage the local population," it is left to the field artillery to "assist in the engagement of the population through the tactful use of indirect fire" (Aspect One). In this aspect, the field artillery is to assist the manoeuvre forces to engage the population by ensuring the judicious employment of kinetic fires that limit collateral damage to sensitive venues and elements of the population comprising groups two and three. It is imperative to understand that indirect fire may not necessarily mean



Combat camera AR2006-G088-0059, 15 June 2007 Sperwan Ghar, Afghanistan

The M777 guns of 2 RCHA stand ready for immediate action at FOB Sperwan Ghar.

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kinetic fires, but a variety of other effects as well. In particular, the employment of kinetic potential, by which the combat power of the field artillery is used to project the resolve and combat potential of CF elements.

As our operations attempt to influence Group Two adherents towards our aims, the kinetic potential of the field artillery becomes extremely useful. Reports from artillery officers in theatre indicate that enemy and neutral forces recognize the firepower potential in the form of 155 mm M777 howitzers. This can be used to our advantage to both disrupt and pre-empt Group One operations whilst projecting an image of professionalism, tenacity and grit to Group Two elements.

This potential leads to the second aspect of the role of the field artillery in the COE, which is to “defeat the enemy with indirect fire as part of the all arms battle” (Aspect Two). During operations to “close with and destroy the enemy,” the combat power inherent in the field artillery can be considered a battle winner. Since the deployment of a battery of M777 howitzers to the Afghanistan theatre, the Canadian Army has come to dominate the battlespace through greater range and lethality. The future acquisition of precision cannon munitions and the coordination and employment of CAS has facilitated Canadian operations to engage and destroy Group One forces whilst avoiding detrimental alienation of Groups Two and Three.

To fulfill this aspect, the field artillery will have to continue the trend of troop level operations that have become *de rigueur* in Afghanistan. This is required to support the platoon to company sized operations that the infantry are undertaking to fulfill their task to the engage the population and destroy the enemy. As mentioned previously, in order to ensure success should the infantry come into sudden confrontation with group one elements, it is necessary to have access to battle-winning combat power, specifically indirect fire and close air support (CAS). This will require the use of precision, or at the very least very accurate fires, to ensure that the Group Two and Three adherents are not adversely influenced by friendly fires thus negating the efforts to ameliorate or maintain healthy relations with these demographics.

## Field Artillery Core Competencies

By reviewing the operational fundamentals of the COE and the dual-aspect role of the field artillery in such a conflict, the following core competencies must be further developed and reinforced during training to ensure continued success.

- ◆ The employment of precision munitions and use of accurate fires must be stressed during all operations in the COE and training in Canada. Whilst exploiting the devastating effects of precision munitions, the basic skills and ability to mass fires to suppress or neutralize area targets must be maintained during training.
- ◆ In order to support the decentralized battlespace of the COE, troop level operations will be the norm. To continue to provide effective support, troop commander (TC) and TSM training must be adjusted to reflect the unique disposition of a troop deployed on operations, in particular the lack of guidance and support from senior personnel on the gun line. This will require a focus on leadership and decision-making skills during Officer Developmental Period One and TSM courses.
- ◆ As the potential for extended operations over a broad battlespace has become the norm, the artillery should investigate the possibility of supporting battle group operations in the COE with a six-gun battery with sufficient personnel to deploy three, two-gun troops in support of the three infantry combat teams.
- ◆ Force protection of the troop or battery must come to the fore. Leaders at all lev-

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els must understand that force protection is always a priority and the skills required to produce a workable force protection plan at the TC and TSM level must be maintained at a very high level. These skills, to include convoy operations and counter-improvised explosive device training, must be included in low-level leadership courses.

◆ In order to address the importance of coordination at the tactical and operational levels, the Artillery Operations Course should focus training on the duties of the FSCC O/WO at the battle group level and the duties of the operations officer at formation level. In particular, the course should reflect the challenges presented by the vast resources the FSCC is required to coordinate, to include reinforcing fires from allied artillery and the coordination of CAS and attack helicopters.

◆ Instructor-in-Gunnery (IG) teams should conduct routine visits to deployed firing units either during or immediately after operations to ensure that lessons learned are transmitted to the Artillery School for inclusion in training. The school, in coordination with the Army Lessons Learned Centre, should act as a clearinghouse for operational lessons learned and their distribution to field units.

## Conclusion

The field artillery has had tremendous success supporting the CF in the war of the snakes. In order to accomplish this, intelligent and dedicated members of the artillery have taken it upon themselves to depart from established doctrine in order to develop TTPs that reflect the context of the conflict in which they find themselves. Many of the conclusions drawn in this article are already in force with the deployed assets and are possibly even changing as the tactical situation changes on the ground. That being said, this article has attempted to codify a way of thinking, rather than any rigorous drills, in order to set the conditions for the continued support of the infantry in the COE. To ensure the success of these operations, the field artillery will benefit by adopting a dual-aspect role, assisting in the engagement of the population through the use of indirect fire, and assisting in the defeat of the enemy with indirect fire as part of the all arms team.

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## About the Author...

Captain Dave Grebstad is a native of Dryden, Ontario and a graduate of the University of Manitoba (B.A. (Adv) 1996). He served nine years in the Primary Reserve with the 116th Independent Field Battery, RCA in Kenora Ontario before transferring to the regular force and serving five years with C Battery, 1 RCHA in Shilo Manitoba. Captain Grebstad was employed as a forward observation officer supporting 3 PPCLI Battle Group during Operation APOLLO. He was posted to the Artillery School in July 2005 and graduated the ten-month Field Instructor-in-Gunnery course in May 2006. He is currently employed as an Instructor-in-Gunnery in 67(Depot) Battery.

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# NEW CONSIDERATIONS IN MORALE FOR CANADIAN OPERATIONAL COMMANDERS

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Colonel Todd M. Mitton, CD, MBA, CMA

*Morale is the greatest single factor in successful war.... In any long and bitter campaign morale will suffer unless all ranks thoroughly believe that their commanders are concerned first and always with the welfare of the troops who do the fighting*

General Dwight D. Eisenhower

*Crusade in Europe, 1948*

The members of today's Canadian Forces (CF) are all volunteers who offer themselves for service based on an implied social and moral contract. In return for their services, including paying the ultimate sacrifice when called upon to do so, CF members expect to be supported by the society that they serve.<sup>1</sup> Because of this, senior government and military leaders have responsibilities in maintaining this contract of mutual trust and support, all of which manifests itself into core values that form the link between the forces and society.<sup>2</sup>

Two recent incidents have highlighted the nature of the moral contract. First, a series of newspaper articles told the story of how the CF wanted to raise troop morale by setting up a "Tim Horton's Afghanistan."<sup>3</sup> The idea of setting up a Tim Horton's at the Kandahar airfield took shape when the first Canadians were greeted by a row of American fast-food restaurants, including Burger King, Subway and Pizza Hut.<sup>4</sup> It was reported that Tim Horton's "balked" at the idea, noting it was not in their business model,<sup>5</sup> and that tight controls over their product and operations could not be maintained in Afghanistan,<sup>6</sup> all the while a CF Personnel Support Agency representative was implying that a trailer could be set up in a couple of weeks, if not days if military cargo space were available.<sup>7</sup> As might be expected, many Tim Horton's customers were enraged, and "swore-off their Timmies in letters to the editor and e-mails and telephoned complaints to company headquarters..."<sup>8</sup> The Company reiterated their support for the troops and noted they would try to do something, but they had not yet been asked.<sup>9</sup> Discussions between the company and the military were announced shortly thereafter.<sup>10</sup> All these events transpired in just eight days (28 January—4 February 2006) and the outlet was officially opened some five months later during Canada Day celebrations.<sup>11</sup>

A second recent incident was the appearance of spectacular newspaper headlines, such as *Adding Insult to Injury? Wounded Soldiers Have Pay Cut*<sup>12</sup> and *Wounded Soldiers Have No Claim to Danger Pay*.<sup>13</sup> Such reports prompted one Liberal Party opposition Member of Parliament to state "...I think (it) is extraordinarily harsh and shows a broken faith with our troops."<sup>14</sup> In a related story, the father of a recently injured soldier implies that the government is not supporting families in their time of need, further noting that they were told they would have to pay their own expenses to meet their son upon arrival back in Canada.<sup>15</sup> The Minister of National Defence and the Chief of Defence Staff responded that the troops would be taken care of, with the Minister adding that when the policy was put in place, no one thought of the consequences of having wounded soldiers evacuated out of the area and the financial impact it would have on them.<sup>16</sup>





Canadian Forces Personnel Support Agency (CFPSA) member, Mr. Guillaume Trudel (OPS Coordinator) stands nearby an American C-17 aircraft, as the Tim Horton's mobile unit is being unloaded at Kandahar Airfield, Afghanistan. CFPSA and the Canadian Forces are working in conjunction with Tim Horton's to improve the well being of the Canadian troops while stationed in Afghanistan.

These incidents demonstrate how such issues can quickly permeate the traditional strategic, operational and tactical levels of operations from a moral contract perspective, and that there was a degree of failure in the planning process. Such incidents directly affect the morale of those touched by them—in this case the soldiers on operations looking for a piece of Canadiana in the form of a good cup of coffee and the soldiers wounded on operations and their families. From a morale perspective, this is considered the tactical level. The CF, with the approval of the government exercised through Treasury Board, has implemented many policies and benefits that reflect the nature of the moral contract and contribute to morale. The danger pay policy, support to military families through the Military Family Resource Centres, Home Leave Travel Assistance, and other extensive publicly funded morale and welfare programmes are but four examples particular to deployments. From a morale perspective, this is considered the strategic level. Conceptually then, operational level commanders, exercising the operational art in the “middle ground,” have the responsibility of fostering and maintaining morale in the sphere between the tactical and strategic.

The above cited incidents imply that the current approaches are lacking in effectiveness, and that a greater emphasis on morale is therefore required if the probability of such incidents is to be minimized. Accepting this, the question becomes whether or not commanders have sufficient doctrinal backing, models or tools to execute their responsibilities with respect to morale. As will be shown, there is precious little at their disposal that could help commanders gain insights into any new considerations resulting from any potential changes to the nature of the operation at hand, or the changing nature of the individuals comprising the force. Consequently, it is argued that by approaching the fostering and maintenance of morale through a model that considers the mission-relevant, leadership, unit and individual antecedents of morale, commanders can influence the optimism, confidence and purpose that lead to the motivation and enthusiasm that are critical to the accomplishment of mission objectives. It will be

demonstrated that commanders must communicate and update their insights on morale, and a tool for doing so will be proposed. Finally, it will be suggested that focused human element research in the area of morale would be beneficial.

## Morale Defined

The CF Joint Doctrine Manual *CF Operational Planning Process* lists the ten Canadian Principles of War, noting that while commanders may have to adhere to one at the expense of another at times, disregarding a principle involves risk and the possibility of failure. The description of the principle of "Maintenance of Morale" states that, "After leadership, morale is the most important element on the moral plane of conflict. It is essential to ensuring cohesion and the will to win. It is, however, sensitive to material conditions *and should never be taken for granted* (emphasis added). Morale is nurtured through good leadership, sound discipline, realistic training, confidence in equipment and a sense of purpose."<sup>17</sup> However, this does not provide a definition *per se*, and a scan of Canadian joint doctrine does not provide one. Interestingly, neither do the U.S. Department of Defense Dictionary of Military and Associated Terms, nor does the NATO Glossary of Terms and Definitions. In the *Oxford English Dictionary* "morale" is given two definitions, first as "The morals or morality of a person or group of people; moral principles or conduct," and second as "The mental or emotional state (with regard to confidence, hope, enthusiasm, etc.) of a person or group engaged in some activity; degree of contentment with one's lot or situation." This provides little insight into military-specific morale, the cultivation, presence and maintenance of which are often taken as a given.<sup>18</sup> This definition also sheds little light on the terms often used as synonyms, such as motivation, esprit de corps and cohesion.

Morale can be defined as a function of the self-preservative adaptability of individuals and groups. When it is high, the individuals or groups are proficient in adapting to the problems or situations that arise, and when it is low, they are not. Self-preservation and self-betterment may be termed the life-instinct that individuals may



Photo courtesy of Combi Camera AR2007-A054-0077 20 May 2007 Kandahar Airfield, Afghanistan

The Newfoundland band The Fables from the CF Show Tour perform for troops from the Joint Task Force at the Kandahar Air Field.

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forego, to the point of giving their lives to further the interests of other persons or cherished principles.<sup>19</sup> In other words, morale is the individual mental attitude that is based on self-confidence and confidence in a soldier's *primary group*.<sup>20</sup> In context, cohesion is then the feeling of solidarity and belonging to a group based on trust, loyalty and mutual affection, and esprit de corps is pride in a larger group (unit) where face-to-face encounters are rare.<sup>21</sup> Collectively these elements make up a climate for which commanders have responsibilities.

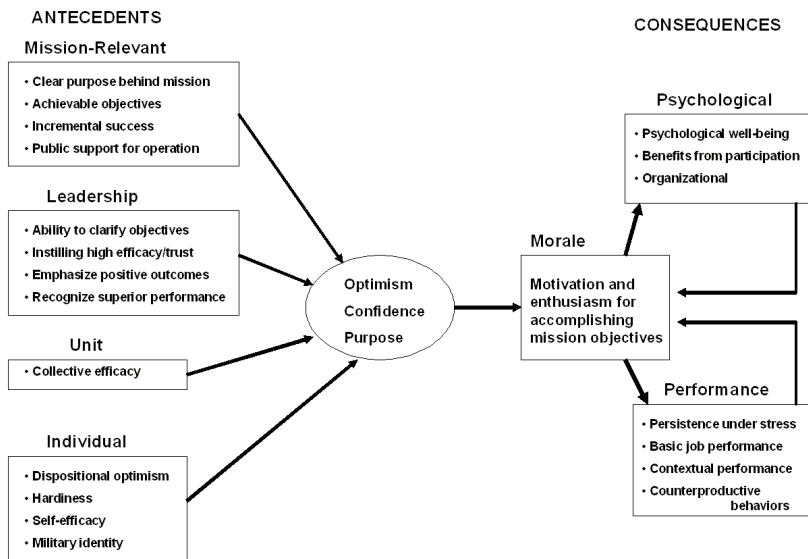
Morale exists on both positive and negative planes (as opposed to good and bad)—such terminology is representative of the “electric-emotional charge” that can be derived from morale. For instance, positive morale is the “charged-up, excited camaraderie soldiers gain from satisfied needs, their positive sense of mission and unity or a wide spectrum of other causes”<sup>22</sup> Positive morale drives the individual, through mutual confidence, to strive for something more important than the individual.<sup>23</sup> Clausewitz suggests that the main factor for defeat in battle is the lack of morale or the loss thereof.<sup>24</sup> Although many others, such as J.F.C. Fuller, S.L.A. Marshall and George S. Patton could be cited, it is safe to say that morale is widely accepted as a critical element of a force, but few commanders can define it succinctly or understand how to measure it.<sup>25</sup> This supports the contention that some form of descriptive doctrine, model of morale, or other tool would be of use to the commander in keeping the importance of morale in mind, and in shaping the appropriate conditions for the creation and maintenance of positive morale. But, are the doctrine, models or tools available?

## Canadian Doctrine on Morale

One constant that contributes to victory is the quality soldier, so developing and maintaining morale must always be in the forefront of commanders' actions. Commanders must understand that morale is in a constant state of flux, is critical to assuring operational readiness<sup>26</sup> and must be at the highest possible level at all times as there is often little warning before operations.<sup>27</sup> Canadian Army doctrine on command notes that “whether in peacetime or operations, a commander, by force of his personality, leadership, command style and general behaviour, has a considerable *influence on morale* (emphasis added), sense of direction and performance of his staff and subordinate commanders. Thus, it is the commander's responsibility to create and sustain an effective ‘climate’ within his command.”<sup>28</sup> This leadership driven climate will directly or indirectly affect soldiers' well-being.<sup>29</sup>

Notwithstanding the doctrinal references to the importance of the commander's influence on morale, Canadian operational and joint doctrine offer no outlines or models that commanders might use to focus their influence on morale and command climate. *The Canadian Forces Operations* manual simply lists the “maintenance of well-being and morale” as one of the seven principles of personnel support, that personnel services are provided to help sustain members and assist commanders in the maintenance of morale and that such services “can alleviate hardships encountered by members of an expeditionary force and enkindle greater attention to duty and skill-at-arms.”<sup>30</sup> A list of personnel services is provided, from chaplaincy to graves registration, but it is interesting to note the absence of family support services, individual communication capacities, internet services, decompression and post operation support. It is also interesting to note that the chapter on “force protection” is still under development, and one must hope that it will address protection of a soldier's own morale given that war is all about destroying an adversary's will.

The *CF Direction for International Operations and Morale and Welfare Program in the Canadian Forces* are other publications where one might expect to find insight into the issue of morale. The former has an extensive chapter on personnel support, but it



**Figure 1 - A Model for Morale During Military Operations**

Source: Brit and Dickinson, *Morale During Military Operations: A Positive Psychology Approach*, 4.

can best be characterized as a procedures and authorities manual.<sup>31</sup> The latter includes a section on support and services available to deployed operations, but the overall focus is on authorities and levels of public support.<sup>32</sup> This is a shortcoming in our doctrine, as morale is a commander's constant concern.<sup>33</sup> This shortcoming must be overcome, but the focus here will remain with operational level commanders.

Given the absence of any meaningful Canadian guidance, dialogue or models from which to work, operational level commanders will need some other construct or model if morale is to be examined more holistically or systematically. It must be acknowledged that there has been a great deal of work done by the Canadian Directorate of Human Resources Research and Evaluation (DHRRE) to measure and establish norms concerning the human dimensions of operations (HDO) over the four stages of an operation (preparation and deployment, arrival in location to 2 months, maintenance period between two to five months, and preparation for return home). A series of questionnaires measures concerns about medical/health issues, discipline, attitudes, cohesion and morale, professional morale, leadership and stress in military service.<sup>34</sup>

One tool used is the Unit Climate Profile, which provides battalion commanders with insights into the unit's morale, cohesion and confidence in leaders. However, this information is often confirmatory or after the fact and the nature of the results implies that although the activities of a battalion, brigade or division (and by extension an operational level task force) may affect a soldier's morale, the fundamental attitudes and behaviours are generally determined at the company level and below.<sup>35</sup> Further, as results are treated as confidential to the unit commander,<sup>36</sup> there is limited utility to the operational level commander in the planning process. Finally, the norms were developed over a two-year period in Bosnia, which had a significantly different mission framework than current operations in Afghanistan, meaning that further time may be required for the norms to adjust or for new norms to be developed before they are of use to commanders in Afghanistan or in a like field.





Stephen Harper, Prime Minister of Canada addresses troops of Joint Task Force Afghanistan at the Kandahar Air Field.

## The Britt and Dickinson “Model of Morale During Operations”

In conducting research for this paper, the author came across but two models of military morale. This is perhaps not surprising as it is contended that there is little research on the determinants of morale and too much focus on the outcomes that may (arguably) result from poor morale, such as post-traumatic stress disorder.<sup>37</sup> The first is a consideration of “Layers of Morale” as “A Generic Army Unit Model.”<sup>38</sup> This defines the responsibilities from individual to the battalion level with regard to intent, mission, norms and targets, using descriptors such as enthusiasm, endurance and loyalty. However, this model lacks sufficient depth to be of practical use at the operational level. The second model is presented in the very current writings of Thomas W. Britt and James M. Dickinson, and is more useful here as it provides a theoretical model of morale during operations (Figure 1).<sup>39</sup>

In the Britt and Dickinson model, the hypothesized antecedents of morale are tied to morale as motivation and enthusiasm for achieving mission success. This motivation and enthusiasm is determined by a member’s sense of purpose, confidence, hope and optimism for the operation. The mission-relevant antecedent focuses on the *beliefs* of the soldier that the mission has a clear purpose and achievable objectives, that incremental success is being made, and that there is public support for the operation.<sup>40</sup> The leadership antecedent sees the critical attributes of leaders as clarifying the mission objectives, instilling high efficacy through training and leading by example, creating trust between leaders and subordinates, and emphasizing and recognizing the positive outcomes that result from dedicated skill. The unit antecedent assumes that unit cohesion contributes to the unit’s power or capacity to produce the desired effects. Finally, many individual factors come into play, including a member’s natural disposition to believe that there are positive opportunities with positive outcomes, hardiness in the sense that they are committed to life goals and enjoy challenges, confidence that they can do their jobs under difficult conditions, and the degree to which they consider being a soldier as central to their identity.<sup>41</sup>

High motivation and enthusiasm for accomplishing mission objectives have psychological and performance-related consequences. The psychological consequences include continued good mental health, the perceived benefit of doing meaningful work or having a greater appreciation for life, and organizational benefits such as enhanced commitment to the organization. Performance-related consequences include the ongoing approaches to one's own work and assisting in the work of others, or potentially counter-productive activities such as drug abuse or breaches of discipline.<sup>42</sup>

Having identified morale as a critical element in operations and a construct in which operational level commanders can view morale, the question becomes how the responsibility to foster and maintain morale as an element of the forces' climate between the strategic and tactical levels can be executed effectively. Using the model as a framework to seek insights in that regard, the main focus should be on issues that affect the antecedents, as positive morale will lead to favourable psychological and performance outcomes. It would be impossible to introduce multiple issues that may affect morale and examine them in the perspective of the model, but two broad-based issues should be sufficiently demonstrative. Given that the first three antecedents to be considered (mission relevance, leadership and the unit) are clearly linked to operations, the changing nature of operations would be a suitable broad-based issue. Given that it is the individual at the root of the fourth antecedent to be considered, it follows that the changing nature of the individual would be an appropriate second broad-based issue.

## The Changing Nature of Operations

The international security environment of the future will (continue to) be characterized by failed or failing states, the proliferation of weapons of mass destruction, and increasing asymmetric threats.<sup>43</sup> Today, there are many ways to describe the changing character of war, but this paper will limit discussion to two contexts as being representative and sufficient for the purposes of exploring the benefits of using the model. These two contexts are the Three Block War and advances in technology.



Photo courtesy of Combat Camera AR2007-M022-0036 4 Feb 2007 Kandahar, Afghanistan

A Canadian engineer hands out rubber boots to one of the children who attended the mine and unexploded ordnance awareness training conducted by the Kandahar Provincial Reconstruction Team.

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## The Three Block War

One way of describing the character of war is through the Three Block War concept, which espouses that "...our enemies will not allow us to fight the Son of Desert Storm, but will try to draw us into the stepchild of Chechnya. In one moment in time, our service members will be feeding and clothing displaced refugees, providing humanitarian assistance. In the next moment, they will be holding two warring tribes apart—conducting peacekeeping operations—and finally they will be fighting a highly lethal mid-intensity battle—all on the same day, all within three city blocks."<sup>44</sup> Inherent in this construct are six conditions that will complicate and shape operations:<sup>45</sup>

- ◆ There is a duty to try and protect the innocent civilian population. Technologically advanced sensors and weapons allow modern forces to do so better than at any time in the past. However, opponents do not share this value and target civilians or use hospitals or schools for operational advantage.
- ◆ Operations must be planned through a blending of political, military and humanitarian factors. Planners must speak with joint, inter-agency and non-government organizations (NGO) and understand the concepts of development that will result in a crowded, multi-faceted area of operations.
- ◆ There is no decisive victory over the enemy that leads to a distinct post-conflict phase. This makes the simultaneous delivery of humanitarian aid and reconstruction critical to the longer-term strategic victory.
- ◆ Insurgents will attack aid workers and those who aid the coalition rather than face a force directly, undermining the resolve of aid workers and reconstruction teams that are critical for success.
- ◆ The media is omni-present and admit that "if it bleeds, it leads." Media focus on combat detracts from the work on the other two blocks, leaving impressions that those efforts are not effective.
- ◆ The military must conduct the battles, but NGOs, diplomats, and local government and aid workers must control blocks two and three.

Superimposed on these conditions is the concept of "fourth generation warfare (4GW)," an "evolved form of insurgency [that] uses all available networks—political, economic, social, military—to convince the enemy's decision makers that their strategic goals are either unachievable or too costly for the perceived benefit."<sup>46</sup> To complicate matters, Three Block operations are often conducted within coalitions that will be of different size, capabilities, composition and character, depending on the strategic objectives.<sup>47</sup> In theory, common doctrine is used to bridge the intellectual gap between principles of war and the execution of the coalition mission,<sup>48</sup> but the incidence of friction is likely to be high and inefficiencies can occur due to different languages, technology and training.<sup>49</sup>

Returning to the antecedents of the model, the nature of the Three Block War and characteristics of 4GW will have implications for the commander in instilling the optimism, confidence and trust required for positive morale. In terms of mission-relevant antecedents, the troops will need an expanded band of information about activities on the political, economic, social, block two, and block three fronts in order to see the clear purpose behind the mission. Mission objectives are often difficult to understand in such operations as simple terms such as "conquer the objective and destroy the enemy" are less common, and hostilities can continue during diplomatic efforts or even interim



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agreements. The commander must be the information provider between the strategic and tactical. The commander must ensure relevant issues are effectively communicated down to the soldiers in order to gain their trust, as knowledge of the real state of affairs (not captured by their common information sources) will lessen the fear caused by the unknown.<sup>50</sup> The information must be framed so the troops know they are making incremental steps towards a clearly defined operational objective, implying that a method of providing frequent updates will be required.

Today, operations occur "outside the wire" and under the constant eye of the media. This situation has two implications. First, as the military naturally views the media as subversive rather than positive<sup>51</sup> (and soldiers can be self-conscious with media present<sup>52</sup>), units will have to understand the nature of the media and that all is not just what they report (the sensational issues that tend to undermine morale). The commander must find ways, often through the media and influencing the strategists, to convince the public that the goals can be achieved at an acceptable cost.<sup>53</sup> Second, while many factors including public opinion, affect morale, the most important factors are the immediate conditions at and how comfortable the troops feel "inside the wire." The American experience has shown that soldiers are not frail creatures who are quick to become dejected, but are rather "active participants in their own well-being."<sup>54</sup> "The forward operating base has emerged as a critical factor in shaping the ability for soldiers to maintain the requisite psychological readiness for combat operations....what helps morale...is mostly the mundane stuff—hot showers, video games, email, and communications with family back home...once the bullets stop flying, they want stuff."<sup>55</sup> For the Canadian commander, such "stuff" would include the uninterrupted offerings of a Tim Horton's outlet, and it is suggested that the commander could leverage effect on morale by reminding the soldiers (for reasons that will be more evident later) of the "value" of all that has been made available to them and why (the moral contract). This suggests that some form of tool to do so would be useful.

## **Advances in Technology**

There is an ongoing need to focus on the human element of soldiering in spite of significant advances in technology brought about by the so-called revolution in military affairs.<sup>56</sup> Concepts such as network-centric warfare purport to focus combat power by effectively linking all aspects of the warfighting enterprise. "It is characterized by the ability of geographically dispersed forces (consisting of entities) to create a high level of shared battle space awareness that can be exploited via self-synchronization and other network-centric operations to achieve the commander's intent."<sup>57</sup> Some would argue that perfect battlefield visibility is closer at hand than ever,<sup>58</sup> and that "the battle commander no longer needs to overlook the battlefield; he no longer needs to be in the vicinity of the battle; he no longer needs to be adjacent to the battle; he no longer needs to be in even the same global hemisphere of the battle...(with the) 21st century general viewing a cluster of video screens and digital maps that portray battle changes in real time."<sup>59</sup> However, wars are still fought by men and women by force of will, regardless of technology, meaning that "individual actions, human imperfections, performance thresholds and varying personalities will still influence and determine a conflict's outcome."<sup>60</sup> The commander is the key personality at play in those human elements and must remain engaged on that plane. It can also be argued that a renewed focus on the human element of morale is needed due to the increasing need to fight in urban areas, where the terrain significantly reduces the technological edge of conventional forces.<sup>61</sup>

It is clear that superior technology can be a major force multiplier, but it can also have its drawbacks. It has been argued that "Having a common operating picture will lead operational commanders to be increasingly involved in purely tactical decisions,

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instead of focusing on the operational and strategic aspects of the situation<sup>62</sup> This blurring of the levels of war and tendency to exploit vertical command or micromanage is counter to the concept of mission command, and can have a profound impact on morale. Studies have shown that micromanagement severely degraded morale as it implied a lack of trust in subordinates,<sup>63</sup> and led to inaction or even fear to act resulting in problems getting escalated to the top.<sup>64</sup> In other words, "micromanagement leads to high turnover, low morale, poor quality and low productivity."<sup>65</sup>

The implications for commanders lie primarily in the leadership antecedent of instilling high efficacy and trust. The operational planning process will lead commanders to a force structure and capabilities list, but the soldiers will need to be confident that the collective of the personnel, equipment and support provided are sufficient to do the job, and that they are adjusted when required. Commanders must develop this confidence through communications and actions, as "regardless of how logical and well-meaning the explanation may be for the unit's shortages, soldiers will evaluate their own role and their unit's mission on the basis of their own perceptions, and no one else's."<sup>66</sup> What fosters negative morale is a lack of equipment, not having sufficient resources on the ground to not just get the job done but to keep it that way, and watching a soldier die.<sup>67</sup> Thus, it is the responsibility of commanders to foresee and demand additional resources when required, or demand that the mission be changed. But having the right equipment is one thing—being allowed to use it is another. Faster communications and greater battlefield visibility may tend to restrict rules of engagement (ROE), but commanders must ensure the ROE are flexible enough to allow for improvisation and freedom of action.<sup>68</sup> The restriction of ROE can affect the individual efficacy antecedent by giving soldiers a sense of loss of personal psychological control, resulting in disengagement from the mission and a loss of pride in their work.<sup>69</sup>

Soldiers can have the best equipment, but as noted earlier, terrain or the scenarios they face, may limit its effects. To foster the antecedents of collective and individual efficacy, commanders must ensure units are well trained. Given that operational commanders rely on separate force generators, they must assure themselves that the force generators properly trained the troops for the mission at hand. This can be difficult, as a joint task force can often be put together quickly due to some unforeseen event. It is argued that the scenario-based training (SBT) approach to impart the knowledge, skills and attitudes for the accomplishment of military tasks is the best approach.<sup>70</sup> If there is time to conduct training, the task force commander must ensure that the SBT is well designed and relevant, or ensure that this was the case with the force generators. The task force commander must also ensure that performance history and skills inventories are used to determine the appropriate tasks and competencies. Once training objectives are developed, carefully crafted scenarios must be embedded and performance measures established. Key to the process is provision of constructive and timely feedback. The commander also has a professional responsibility to see that lessons learned from the training and subsequent operations are fed back so that future training can be modified.<sup>71</sup> The commander should also communicate confidence in the training provided, as this will give the soldiers the confidence they need in their self and unit efficacy.

The increasing battlefield visibility garnered from technology generates a particular challenge for commanders. When battle intensity rises, the soldiers need to see or know that the commander is near, as this instils belief that direction and order exist.<sup>72</sup> In the words of General Patton, "commanders should routinely visit units two echelons below their command. The more senior the officer, the greater the value to the morale of troops. The more imminent the danger, the greater the value of the visit."<sup>73</sup> But presence in the form of micromanagement must be resisted. This creates a dilemma because



Private John Drew from the 3rd Battalion Princess Patricia's Canadian Light Infantry (3PPCLI), Edmonton, takes a shot on goal during a recreational ball hockey game at Camp Nathan Smith, the Provincial Reconstruction Team (PRT) site in Kandahar, Afghanistan.

technology and the nature of operations can result in greater dispersion, making it more and more difficult for commanders to be seen. In Vietnam, for example, senior officers were accused of using advancing communications equipment to avoid combat risk thus not dying in sufficient numbers in front of the troops to create a shared risk or martyrdom that all sociological units require to maintain cohesion.<sup>74</sup> It may be that commanders cannot use personal presence to the same degree as in the past, meaning that new ways to heighten and maintain morale through the increased attention to other antecedents and alternate means of communication must be found. As will be seen, the changing nature of the individual will demand it.

## The Changing Nature of the Individual

All human beings concern themselves with the basic requirements of life such as food, safety and health, but morale transcends these basic concerns when it comes to the mission.<sup>75</sup> Individuals will have natural tendencies as to their dispositional optimism and hardiness, two of the individual antecedents leading to morale, and these vary from generation to generation, with different generations being found in a single organization. In Canada, there are four generations, namely matures (born prior to World War II), Baby Boomers (born post WWII to 1964), Generation X (born 1965 to 1980) and Generation Y (born 1980 and beyond).<sup>76</sup> Simple math tells us that the first Generation Y's are now 26 years old, and they represent our predominant recruit pool, soldiers up to corporal, and officers up to junior captain. In the near future, operational level commanders are likely to be from early Generation X or be very late Boomers, while more senior leaders are Baby Boomers. Generations are labelled because each has a similar set of values, attitudes, aspirations, expectations and motivations,<sup>77</sup> all of which contribute to an individual's optimism, confidence and purpose. Baby-Boomers, by their nature, accept authority, recognizing there is a boss who issues the orders and that it is their job to carry them out.<sup>78</sup> Generation X (Gen X) shares this characteristic to a degree and is fiscally conservative yet liberal on social issues, but Generation Y (Gen Y) is fundamentally

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different. It is safe to say that those of Gen X who remain in the CF have been sufficiently inculcated in the military ethos, so it is Gen Y that is of increasing importance to the commander in examining morale issues. Because of this, Gen Y will be examined both from an individual characteristics perspective and from an organizational perspective.

There are many terms used to describe the individual characteristics of Gen Y. They have all the latest technological gadgets, they multi-task, they thirst for knowledge, demand respect, hate tokenistic rhetoric and expect to control what, when, where and how they learn. They are smart, creative, confident and self-sufficient, but also impatient and focus on “me.”<sup>79</sup> Having been raised with all the latest electronic gadgets and gizmos, they are able to converse on an instant messenger, surf the web, and change tunes on the iPod, all the while doing their homework.<sup>80</sup> They have little brand loyalty, and believe it is their right to make choices and customize the things they choose.<sup>81</sup> They are always on phones and computers because of the value they place on networking with friends.<sup>82</sup> Gen Y’s will give you their dedication, but ask what they will get for it—today!<sup>83</sup> Gen Y’s crave being engaged, wanting to be active 24/7,<sup>84</sup> and can be given more responsibility sooner because of their computer skills—otherwise they can be bored and look for a better experience.<sup>85</sup> Whereas Gen X’s were raised in larger families with hierarchical order, Gen Y’s are mostly from one or two children families. The resultant extra attention has led to an ability to be unfazed by power and an ability to negotiate for what they want.<sup>86</sup> Gen Xers tend to be independent, whereas Gen Y’s had much closer parental coaching and counselling that emphasized self-esteem.<sup>87</sup> Interestingly, ten percent of Gen Y’s in the U.S. are critically compulsive spenders, a rate three times higher than previous generations.<sup>88</sup>

Given these traits, the implications for commanders within the individual antecedents of dispositional optimism, hardiness, self-efficacy and military identity are many. The most obvious is to ensure that the “inside the wire” climate commanders develop is conducive to the use of all the gadgetry Gen Y’s rely upon for their networking activities. Recognizing there will be security issues to deal with, the climate should mimic to the extent possible that which is available in Canada, and commanders should look for ways that the network can be exploited, given the condition of battlefield dispersion discussed earlier, and the need for commanders to be visible. Similarly, distance learning opportunities increase in importance, and commanders must engage the strategic levels to ensure they are readily available at the tactical level. The noted traits re-emphasize the need to demonstrate incremental success to a generation that thrives on it, and the requirement to have organized activities inside the wire 24/7, lest they get bored. Noting that Gen Y’s will give you their dedication, what a commander can do for them today is ensure they can charge their batteries, stay connected, and not only have, but do not run out of doughnuts when “behind the wire!” Noting the compulsive spending habits of some and the propensity for debt, commanders may need to emphasize the need for careful pre-deployment screening to ensure soldiers are not solely motivated by the monetary benefits of a deployment. This list is far from all-inclusive, but is demonstrative of the insights that could be gained by using the model at hand. But insights gained are of little use if not captured and communicated to the troops as a concrete indication that their morale is in the forefront of commanders’ minds, and remains a function of the constant and timely feedback Gen Y’s crave.

From an organizational perspective, Gen Y’s are more likely to ask what the organization can do for them rather than what they can do for it. They like to control their environment and are more concerned about career breaks, training and study time, the working environment and appraisals.<sup>89</sup> Gen Y college graduates correlate happiness with an interesting and challenging job, as opposed to a high-paying job and financial

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security,<sup>90</sup> yet they tend to have unrealistic expectations about how fast they will be making the same salary as the top 1% of the current population.<sup>91</sup> Gen Y's do not fear the future or the prospect of losing their jobs,<sup>92</sup> and do not expect or even want a long tenure with a single organization.<sup>93</sup> A Gen Y will see bumping into the CEO as an opportunity for introduction and to express an opinion, whereas a Gen Xer would avoid any such encounter, let alone say anything if it did occur.<sup>94</sup> Late Gen Xers and Gen Y's will work very hard for supervisors who establish very specific and regular goals that are based on their need for regular, short-term achievements.<sup>95</sup> Gen Y's like to have their jobs given to them in small, measurable pieces and want immediate feedback to satiate their need for a sense of accomplishment.<sup>96</sup> Interestingly, there is a trend in Gen Y towards joining the military for occupational reasons rather than the intrinsic value of military service and ethos that matures, boomers, and Gen X joined for,<sup>97</sup> and DHRRE has noted that privates traditionally report lower levels of military ethos than higher ranks.<sup>98</sup>

For commanders, the implications for morale in this context lie primarily in fostering the individual antecedent of military identity and allowing for the exercise of hardiness. Beyond communicating the positive outcomes and recognizing superior performance, commanders must rely on the greater strategic personnel framework to address the organizational attitudes noted above. Soldiers will have to be shown the broader benefits of military identity, i.e., the value that military service brings to them. Businesses accomplish similar aims through a "value proposition," where their basis for competitive advantage (customer chooses your products over others) is to create a competitively superior value (compared to available alternatives) for a customer.<sup>99</sup> In a military context, this equates to soldiers identifying and remaining with the military, rather than seeking alternatives, by seeing and understanding the value that service brings to them. Commanders could make use of a similar tool to influence the antecedents of morale, and once that advantage is communicated and understood, commanders must be careful not to stray from the core message.<sup>100</sup> Such a soldier-centric approach will demonstrate that the CF truly cares for them and seeks to meet their specific needs over the entire range of operations, thus fostering morale.

Using the model as a method to look at the antecedents of morale identified many general factors for consideration by commanders, and the need to communicate with soldiers emerged as a common theme. To this end, a commander could issue some form of document, composed in the first person, to every participating soldier that details the commander's own value proposition to them. The document would highlight the higher level reasons for the mission and the government's support, the strategic benefits available to them (and why) such as home leave travel, family support programs, danger pay (and benefits after leaving the danger area or in the event of death), the quality of health care that will be available, distance learning opportunities, and post-deployment follow-up and support. It would include the commander's commitment to ensure the best possible equipment is available and that it will be properly maintained. The document would identify the commander's intent with regard to unit climate and all the support and activities that will be available inside the wire, and how the commander intends to communicate with and update them on incremental mission success. These are but a few examples of issues that could be addressed in such a "value proposition" document. It is further suggested that human dimensions research in the CF be focused to develop a Canadian model for morale during operations that highlights Canadian values. Focused research in this area could help identify the tenets of a value proposition applicable to all generations that can be personalized by future commanders.



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## Conclusion

Commanders at the operational level have responsibilities to ensure that the moral contract between Canadian society and the soldier is maintained. It is through the maintenance of positive morale that this can be accomplished, and commanders must always have this in the forefront of mind. However, Canadian doctrine does not offer much insight into this phenomenon, let alone provide a construct or model that the commander can use to assist in the planning process or during operations. This paper has shown that a model of morale would be useful for the operational level commander and, through looking at the changing nature of operations and the changing nature of the individual, has provided some examples as to how it could be used. It is clear that the commander must find ways to communicate the results of this analysis and demonstrate that morale remains uppermost in his or her mind. A personalized "value proposition" to the soldiers is a tool that could be used as a means of instilling the optimism, confidence, and purpose required to ensure motivation and enthusiasm for accomplishing mission objectives. The strategic level must assist by co-ordinating the efforts of applied research in the development of a Canadian based model for morale during operations, and identifying the base tenets of the commander's value proposition. It is argued that such an approach would markedly reduce the likelihood of overlooking issues that the troops and the public see as a breach to the moral contract, such as the need to have a Tim Horton's in Afghanistan until a Burger King is seen already on-site, or un-thoughtfully demoralizing wounded soldiers and their families. After all,

*In war, everything depends on morale;  
and morale and public opinion comprise the better part of reality*

**Napoleon Bonaparte**

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## About the Author...

Colonel Mitton joined the CF under the ROTP and graduated from UNB with a BBA in 1982. A logistics finance officer by profession, he served as a junior officer with 3RCR in Winnipeg and Cyprus and 1 Svc Bn in Calgary. Following completion of a sponsored MBA and promotion to Maj, he served with D Cost S, as Comptroller at CTC Gaagetown, and attended staff college at CFC Toronto. As a LCol he was the Comptroller for CFRETS, the support services officer for RMC, and the resource manager of the Canadian Defence Academy. Since his promotion to Colonel, he served as the Comptroller for Chief of Military Personnel, completed the Certified Management Accountant program, and attended the Advanced Military Studies Program at CFC. He is presently serving as the Director of Military Pay.

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# THE WAY OF THE PASHTUN: PASHTUNWALI

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Major Richard Tod Strickland, CD

Canadian soldiers saw a routine tribal meeting in Afghanistan turn into an ambush, with one officer critically wounded by an axe-wielding assailant.

"The guy lifted up the axe, and called out *Allah Akbar*, the jihad prayer, before they do suicides, and he swung the axe into Trevor's head," Capt. Kevin Schamuhn, the platoon commander, told CTV News on Saturday...

Canadian soldiers shot and killed the attacker, who was in his 20s.

—CTV.ca 5 March 2006<sup>1</sup>

Occurring in the rugged hills near Gumbad, in the Shah Wali Kot District within the Kandahar Province of Afghanistan, the attack against Lieutenant Trevor Greene in early March 2006 stunned the Canadian populace and the men and women of the Canadian military. Taking place in rural Afghanistan, many in Greene's battalion had assumed that they would be relatively safe from attack while conducting *shuras*,<sup>2</sup> primarily because of the supposed protection and application of *pashtunwali*, or the way of the Pashtun.<sup>3</sup> Hindered by a limited understanding of the term, many assumed that the tenets of *pashtunwali* were universal and accepted by all Afghans; sadly this was not the case.<sup>4</sup>

Knowledge of the cultural norms and practices of Afghans is rudimentary at best. Few in Canada, and quite likely Europe and North America, have any real understanding of Afghanistan and its people. Tribal codes and practices seem as distant in time as the American frontier or the "wild west," and more appropriate to an era dominated by imperial practices and the building of empires, certainly not the 21st Century. Many cannot conceive of a people who do not subscribe to the concept of rights and obligations we in Canada take for granted, and whose lives differ so dramatically from the scope of the privileges that we are afforded in the West. Certainly, few can understand why the Pashtuns of Afghanistan believe what they do, or why it is important to them.

The purpose of this piece is to describe the code commonly referred to as *pashtunwali*, paying specific attention to its tenets and guiding principles, as well as its applicability and usage. Additionally, I will examine its relationship with the Islamic concept of *shari'a*, as well as the role played by women in its day-to-day use. Lastly, I will close with some observations on the code and possible implications it could have for the conduct of ongoing NATO operations within Afghanistan. The topic warrants study and discussion, largely because of the significant interactions which are happening between westerners currently in Afghanistan as part of the "International Security Assistance Force" (ISAF) and "Operation ENDURING FREEDOM" (OEF), but also because if there is any real hope of ever rebuilding Afghanistan and making it a viable nation on the world stage, it is imperative that an understanding of its cultural norms and practices exists beyond that articulated in the popular press.

Consensus on what specific practices constitute *pashtunwali* is not universal among scholars, or indeed among the Pashtuns themselves. This is not unexpected when dealing with a code of behaviour that is not formally written down, but rather relies upon convention and practical application in a geographic area. Because of this, it is

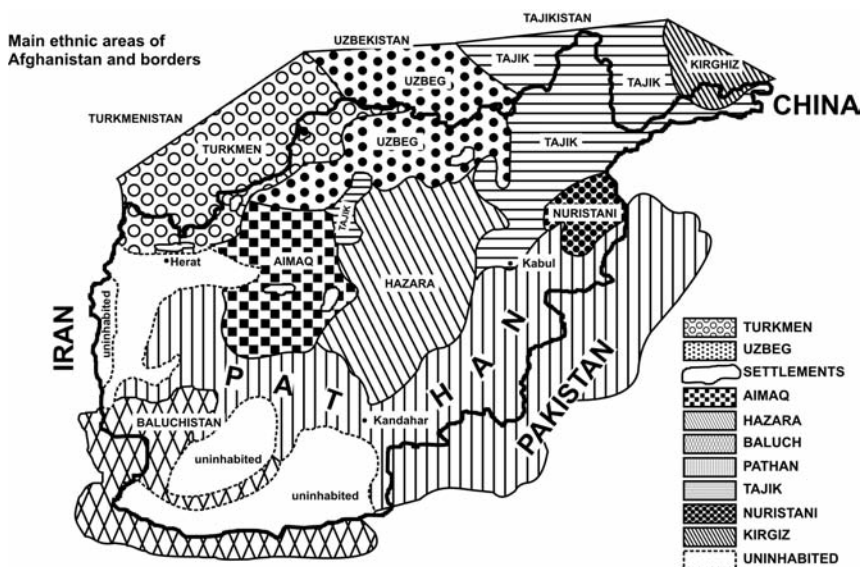
important that before describing pashtunwali, and examining its principles, that we first possess a basic understanding of the type of people who follow it—the Pashtuns.

## The Pashtuns

Their vices are revenge, envy, avarice, rapacity and obstinacy; on the other hand, they are fond of liberty, faithful to their friends, kind to their dependants, hospitable, brave, hardy, frugal, laborious and prudent; they are less disposed than the nations of their neighbourhood to falsehood, intrigue and deceit.

—Mountstuart Elphinstone<sup>5</sup>

The men and women collectively known as Pashtuns, and perhaps romanticized by Elphinstone, inhabit the area shown in the map below (where they are indicated as Pathan). The traditional rulers of Afghanistan, after coming together under the leadership of Ahmed Shah Durrani in 1747, they currently form approximately 38% of the Afghan population, comprising its single largest ethnic group.<sup>6</sup> Primarily Sunni Muslim (approximately 84%)<sup>7</sup> in their religious beliefs, they are “deeply religious”<sup>8</sup> subscribers to the Hanafi school of jurisprudence.<sup>9</sup> As can be easily seen, Pashtuns are not limited to Afghanistan, and the four tribes that form the Pashtun ethnicity straddle the border with Pakistan. Described as the “worlds largest tribal group,” they are broken down into the “Ghilzai (or Kuchi),” “the Durrani,” the “free tribes” living in the border areas of Pakistan and Afghanistan, and the “settled tribes” which live solely in Pakistan.<sup>10</sup>



Map 1—Main Ethnic Areas of Afghanistan and Borders<sup>11</sup>

Descriptions of their character abound in hyperbole, both positive and negative. Cathy Newman has written that “It is said of the Pashtun that they are only at peace when they are at war.”<sup>12</sup> Noted writer and commentator Robert Kaplan stated:

Only Pathans could have invented a game that requires a man to pick up a butterfly mine and toss it in the air without losing a hand (not all succeeded). Only Pathans could make walking through a minefield a test of manhood.<sup>13</sup>

In a more balanced view, John Griffiths describes them as being “closely knit [with] a sharply defined pattern of family relationships that places everyone not of that group... among the world of potential enemies.” They take “strong pride” in being Pashtuns,



calling “no man lord and [admitting] inferiority to nobody.”<sup>14</sup> This is aptly shown in a fragment of poetry written in the 17<sup>th</sup> Century, by Khushal Khan of the Khatak Tribe, when he wrote:

*Glory's the hazard, O man of woman born!  
The very name Pakhtun spells honour and glory  
Lacking that honour what is the Afghan story?  
In the sword alone lies our deliverance.*<sup>15</sup>

A significant element in the basic formation of this pride is the education, and inculcation into the tribe, which every Pashtun receives throughout his upbringing. From their birth, Pashtun children are brought up seeing the conventions and effects of *pashtunwali*,<sup>16</sup> watching it govern all aspects of social interaction both between tribal members and outsiders interacting with the tribe.

## Purpose

It must be stated from the outset that *pashtunwali* is much more than just a system of beliefs and tribal practices; it is more accurately described by noted scholar Olivier Roy as both a “code and an ideology.”<sup>17</sup> In many ways it is much more akin to an unwritten legal system than might at first be discerned by the casual observer. Indeed, Roy views it as “a body of common law which has evolved its own sanctions and institutions.”<sup>18</sup> Its principle purpose is to maintain a social “equilibrium” within the tribe,<sup>19</sup> resolving and preventing disputes over items of relative scarcity within the region: “zar, zan and zamin” (gold, women and land).<sup>20</sup> In this, it can be viewed as sharing similarities with other tribal codes, such as the medieval Albanian code of Lek Dukajin.<sup>21</sup> In short, it “dictates the conduct of life quite as much as religion or government in the Pashtun areas of Afghanistan.”<sup>22</sup> This is best explained by Palwasha Kakar:

By adhering to Pashtunwali a Pashtun possesses honor (*izzat*), without honor s/he is no longer considered a Pashtun, and is not given the rights, protection, and support of the Pashtun community.<sup>23</sup>



Photo courtesy of Combat Camera, AR2007-1025-079 18 September 2007, Spin Boldak, Afghanistan

Captain Steve Winters of the Provincial Reconstruction Team takes advantage of his visit to Spin Boldak to discuss problems with villagers and refer them to the appropriate local resources.





Master Corporal Chase Feissel, a combat engineer, speaks to young Afghans near Forward Operating Base Wilson.

As previously mentioned, the application of *pashtunwali* is not universal, either across Afghanistan or in its Pashtun dominated regions (or those of Pakistan). Variations in practical application of the code exist, both on a regional and class basis.<sup>24</sup> Further, although initially a Pashtun code of conduct, it has since branched out and now affects the tribal and cultural practices of other ethnic groups within the region who “must deal with similar environmental and social realities.”<sup>25</sup> It tends to function optimally, as noted by Thomas Barfield:

...in a community of political equals where differences in wealth and power are not too great. It cannot easily survive where power differences are permanent or where an individual has no power to demonstrate autonomy.<sup>26</sup>

## The Tenets of Pashtunwali

Depending on one’s perspective and interpretation, *pashtunwali* is made up of between three and six basic tenets, which in turn develop into a fairly complex interplay guiding the actions and normative behaviours of the code. These are: *badal* (revenge), *ghayrat/nang* (self-respect, chivalry or bravery), *melmastia/nanawati* (hospitality/asylum), *purdah* (gender separation), *namus* (pride or defence of honour) and *jirga* (council).<sup>27</sup> The scope of these has been captured relatively well by scholar Dilip Hiro, who described *pashtunwali* as:

To avenge blood; to fight to death for a person who has taken refuge with me no matter what his lineage; to defend to the last any property entrusted to me; to be hospitable and provide for the safety of the person and property of guests; to pardon an offense (other than murder) at the intercession of a woman of the offender’s lineage, a sayyid or a mullah; to punish all adulterers with death; to refrain from killing a man who has entered a mosque or the shrine of a holy man.<sup>28</sup>

Now that we have some idea of the breadth of the code, let us examine each of the tenets in turn.

The concept of revenge or *badal* is one that has captured the imagination of many observers, with many, Robert Kaplan among them,<sup>29</sup> assessing it as the major element

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within the code itself. Revenge is mandated in practice by “an accusatory insult, act or condition that offends the Pashtunwali norm...”<sup>30</sup> Revenge itself is essentially a “show of superior force” which clearly demonstrates to all that the offended man or family is still to be respected and afforded honour. Were *badal* not to be exercised, the offended group would essentially be demonstrating to the village or tribe that they were not worthy of honour and did not deserve respect in the daily life of the village. In the words of the Pashtuns themselves, “Who today is disgraced, tomorrow will be lost.”<sup>31</sup> As such, *badal* is improperly viewed if one conceives of it as retribution; rather it is the re-establishment of the norms of behaviour and interaction between groups within the tribe (individuals, families or tribal sub-sets). It warrants note that the act of *badal* cannot be excessive and must be proportional to the original offence. The decision as to what constitutes “proportional” is decided by the *jirga*,<sup>32</sup> which will be discussed later.

Some do not split *badal* into its own category, and instead see it as more aptly grouped with *ghayrat* and *nang* (self-respect, chivalry or bravery). The concepts are all closely related, and can be justly categorized as central to the code. *Ghayrat*, when viewed in the terms of self-respect, must be maintained at all times, and if lost or compromised, can result in dire consequences, such as “blood-feuds” (the obligation to avenge wrongful death), which in themselves can see tribal members going to legendary lengths to meet the commitments and obligations imposed in the re-establishment of honour.<sup>33</sup> *Nang* and *ghayrat* can be defined in broad terms as “proper defence of honor” and “honourable actions is battle.” Honourable actions presume that one is following the accepted norms of combat; that is, who can or cannot be attacked (the non-attack of civilians for example) as well as “the proper distribution of war spoils.”<sup>34</sup> Indeed, one’s very value as a man, as stressed from childhood, is defined by brave and valorous conduct on the battlefield.<sup>35</sup>

When judged in this light it can be seen that honour is principally gained through the demonstration of martial ability, and actual combat, though this does not always have to be the case. Commanders, warlords and those who enable combat to take place (financiers, logisticians, etc.) can also gain honour by virtue of their daily conduct and their relative positions as leaders of other warriors, even if they do not engage in combat themselves.<sup>36</sup>

Interestingly, fighting itself is not enough, and there is a requirement to demonstrate both “individual zeal” and a certain degree of autonomy in one’s actions. This has, in the recent past, lead to a significant degree of participation on the part of the Pashtuns in insurgencies, such as against the Soviets, where such participation has been classified as an “extension of the Pakhtun ethos of... ghariat and bravery...”<sup>37</sup> Ironically, these demands have also lead to a general disinterest amongst the Pashtun for service in the national army; although it provides opportunity for combat, it is fighting that runs contrary to their tribal code, which stresses the value of individual autonomy.<sup>38</sup>

The twin ideas of *melmastia* and *nanawati* (hospitality and asylum) are just as important to the Pashtuns as their abilities as warriors. Succinctly, *pashtunwali* requires “a man to be hospitable whenever the occasion offers...”<sup>39</sup> More than mere social grace, it “includes the feeding of strangers and friends...gift giving and defending the guest.”<sup>40</sup> *Melmastia* is one of the few aspects of the code, which has been manifested in a physical manner, namely the construction of “guest houses” within villages and towns in Pashtun areas.<sup>41</sup>

Palwasha Kakar has amplified that “honor is buttressed by hospitality in that it increases the number of social networks [one] has access to;”<sup>42</sup> put another way, the more people who see one being honourable, the greater one’s honour. This one area of *pashtunwali* may also be related to Islamic cultural practices throughout the Middle East,



Photo courtesy of Combat Camera, AR2007-Z023-018 Sept 2007, Kandahar, Afghanistan

Sergeant Dan Frenette of the Provincial Reconstruction Team (PRT) speaks to an Afghan about a project aimed at improving living conditions in his village south of Kandahar.

which similarly call for hospitality to strangers under the belief that one cannot know the face of God, and by being gracious to strangers, we are being gracious to God.<sup>43</sup>

*Nanawati* is a seminal component of *melmastia*. Indeed, one author has stated that:

The most important extension of this part of the code...is the obligation to protect, with your life if necessary, the person and property of your guest, and, if he specifically takes refuge with you, to take up his cause as well.<sup>44</sup>

The extension of hospitality and asylum, or refuge, is almost without limit, and includes the provision of *melmastia* to those that are “considered to be outlaws by another authority” (other families, tribes, provincial or national governments, etc.).<sup>45</sup> This can manifest itself in ways that are bizarre to the outsider. For example, the Taliban government’s refusal to hand over Osama Bin Laden can be justly viewed as a manifestation of this aspect of the tribal code that they had been raised to view as normal.<sup>46</sup> Further, it can be easily seen as the rationale used by villagers to protect insurgents coming into their village, even if ISAF or OEF forces want the very same insurgents.

Lastly, at a more local level, there are two aspects of *melmastia* and *nanawati*, which can impact on day-to-day life. Firstly, it is through these elements of *pashtunwali* that blood feuds can be ended. Specifically, it falls upon guests to request that blood feuds be ended. Female guests, once accepted into their host’s home, are able to request that a feud be stopped.<sup>47</sup> Secondly, women can use the very rules that mandate hospitality to resolve potential marriage issues. For example, a young woman who does not desire to be married to her betrothed can present herself at the home of another man, whom she wishes to marry, and ask to be accepted as a guest. If the host accepts her presence, he is then essentially forced to marry her in order to maintain honour. It then falls to the host to resolve the conflict that will inevitably arise with the father of his new bride.<sup>48</sup>

Gender separation, or *purdah*, is an element of the code that few sources acknowledge, but which I have included primarily because of its controversial nature and

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the fact that its complexities and interrelationships with the other aspects of *pashtunwali* need to be factored into any understanding of the broader code. Coming from the Urdu word for “veil,” it is not universally applied in Pashtun areas.<sup>49</sup> There is a wide variance in practices, with the “boundaries of *purdah*” being directly influenced by one’s social and economic group,<sup>50</sup> as well as by one’s geographical situation. For example, within the city of Kandahar, it is quite rare to see a woman walking the streets; those that you do see are generally covered from head to foot in the *burkha*, unless they are either quite young (to the age of 10) or quite old. Moving into the province of Helmand, for example in the city of Lash Kar Gah, one will see different rules applied, with women generally wearing head and face veils, yet under nowhere near the same level of restrictions placed on social interaction.<sup>51</sup>

In the extreme, *purdah* can “bar women from educational opportunities” and even the “provision of health care.”<sup>52</sup> It was these types of extremes that lead to international outrage at the general conduct of the Taliban, and have continued to contribute to pressures on the Karzai government of Afghanistan to reform gender roles and practices within the country. Similar restrictions on female freedom of movement are often viewed in a negative light; however, at least one author has noted that they “also allow for freedom from male interference.”<sup>53</sup>

The idea of *namus*, or “that which is defended for honor to be upheld”<sup>54</sup> is closely related to both *purdah*, and *memastia*. It differs slightly from the idea of hospitality or revenge, and may be perhaps more broadly interpreted as “saving face” or protecting one’s reputation, specifically as it relates to the interactions between men and women.<sup>55</sup> It is not an article of *pashtunwali* that receives universal comment, but writer Bernt Glatzer provides one interesting perspective:

Neighbours’ gossip is even more feared than the actual behaviour of women. Gossip is what erodes *namus* most effectively and is most difficult to control. Better [to] not let anybody see women.<sup>56</sup>

One can readily deduce that it is not the isolated aspects of *pashtunwali* that cause difficulty; rather, it is the complex interrelationship amongst the myriad different facets of the elements that must be sorted through. The cutting of this “Gordian knot” is the responsibility of the *jirga*.

Defined by common usage, a *jirga* is “the gathering of a few, or a large number of people; it also means consultation.”<sup>57</sup> That the *jirga*, or council, is a critical component of *pashtunwali* is sometimes lost on many. Ali Wardak has argued that “it...plays a central role in strengthening social solidarity among Afghans and contributes significantly to the maintenance of order in Afghan society.”<sup>58</sup> Traditionally, it is a council organized at the village or regional level, which in turn provides the legitimate authority governing the application of *pashtunwali*.<sup>59</sup> More recently, the *loya jirga* has filled a similar function at the national level as part of the Afghan government. The important distinction here, however, is where most *jirgas* are concerned solely with matters relating to the application of *pashtunwali*, the *loya jirga* is concerned with the governance of the country, irrespective of ethnicity or tribal affiliation. As such, it can be viewed as a manifestation of the impact of *pashtunwali* on other cultures.<sup>60</sup>

Conversely, it must be noted that the use of a *jirga* can be legitimately viewed as affecting the perceptions of the people on their regional and national governments. Specifically, if a *jirga* is convened and then serves to govern the behaviour in a given area, then what is the necessity for a central provincial or national authority? As such, the continued use of *jirgas* could be construed as undermining the central authority of the national government, unless the formal state-sanctioned legal code and *pashtunwali* articulates the same provisions.





Photo courtesy of Combat Camera, AR2007-Z038-13 8 Sept 2007, Kandahar, Afghanistan

Young Afghan boys look on as a Provincial Reconstruction Team (PRT) patrol passes by on its way to survey the needs of villagers in Morghan, Afghanistan.

A *jirga* is made up of distinguished men of honour (known as *marakchi*)<sup>61</sup> from a given area, all practitioners of *pashtunwali*. Women have also been participants, but this would appear to be more the exception than the rule. Decisions are taken by consensus, rather than by a vote or some other means, thus demanding a fairly high level of oratory skills by all speakers who participate (in order for them to convince their fellow members).<sup>62</sup> A *shura* and a *jirga* are not the same things, though they are sometimes confused. The principle difference is that a *shura* is generally conducted by non-pashtuns, and that it lacks the “clearly defined rules” that convention has given to the conduct of *jirgas*.<sup>63</sup>

Now that we possess a general understanding of the code, let us turn to two areas that are often misunderstood: its relationship with women and its interaction with Islam.

## Role of Women and Interaction with Islam

Some scholars have taken the view that *pashtunwali* “excludes women,”<sup>64</sup> perhaps as a result of the limited role that women play in the conduct of *jirga*, or by taking an overly harsh view of the function filled by *purdah*. This perspective disregards the important capacity undertaken by women, as “guardians of the standards of *pashtunwali*.”<sup>65</sup> In short, it falls to the women of the tribe to ensure that the tenets are followed by all members of the tribe, and in particular their own families. Further, women play a second significant role, in that it falls to them to instigate the cessation of a “blood feud.” It is true that women have limited functions, and almost no authority on their own. To a Western or modern perspective, this seems to be an affront to human rights and the basic concepts of equality, but it should not be seen as exclusion. Certainly, the precepts of the code apply equally to men and women, and both suffer the code’s consequences as well as enjoying the protection it affords. This has been noted by John Griffiths:

The ideal man is the warrior poet, the man bold in battle, eloquent in counsel and moving in love. Woman scarcely features...except in so far as she is either the recipient of the benefits...or bound, through her men folk, by its obligations.<sup>66</sup>



The relationship between *pashtunwali* and Islam, specifically the concept of *shari'a*, is somewhat more complex, all the more so because it is largely the case that the differences are only seen by Muslim scholars and outsiders, rather than the Pashtuns themselves.<sup>67</sup> Although the two codes operate side by side, as noted by Victoria Schofield,<sup>68</sup> there are some significant differences in the practical application of the two. Right from the outset, it can be easily seen when judged against the criteria of applicability; *shari'a* is intended for all Muslims, whereas *pashtunwali* is, strictly speaking, the way of the Pashtun and is limited in its applicability to that one ethnicity or tribe.<sup>69</sup> Although the codes have similar goals, there is a significant divergence in the practical application, as shown in the table below:

Social Issue	<i>Shari'a</i>	<i>Pashtunwali</i>
Proof of Adultery	Must be proven by four eyewitnesses	May be proven based on hearsay alone
Divorce	Relatively easy to obtain	Almost impossible to obtain
Right of Women to Inherit Property and Money	Sanctioned	Not allowed
Retribution	May be total	Must be limited

Table 1—Differences in Practical Application of *Shari'a* and *Pashtunwali*<sup>70</sup>

Though these differences may seem minimal, they are in truth significant, in particular among some elements of the *ulemma*. Noted Islamic scholar Olivier Roy has pointed out:

In Ghilzay and eastern Pashtun areas, mullahs have constantly tried to destabilize *pashtunwali*... in the name of *shari'a*. This never happened among Durrani. Ghilzay and eastern Pashtun areas have regularly witnessed messianic, fundamentalist movement headed by mullahs...always trying to replace tribal customs by *shari'a*.<sup>71</sup>

The simple deduction here is that there are segments of the non-pashtun *ulemma* who view *pashtunwali* as an affront to the tenets articulated by *shari'a*, and that although both codes serve to regulate behaviour, there is a fissure between the two.

## Conclusion

As has been shown, *pashtunwali* is an extremely complex mix of convention, practice and tradition that varies widely in its application, but basically governs the conduct of a significant portion of the Afghan population. As the international community continues to engage and rebuild within the country, it is imperative that soldiers, diplomats and aid-workers carrying out their respective roles understand the mindset of the people with whom they are working and the function that *pashtunwali* fills, regardless of whether or not the people are ethnic Pashtuns.

Returning to the axe attack against Lt Greene, the battalion involved conducted an aggressive information operations campaign in the entire Shah Wali Kot district, where the village of Gumbad is found, with the aim of using *pashtunwali* to discredit both the attacker, and the village that allowed it to happen. Clearly, one could easily argue that while a guest in the village (at least from the perspective of the soldiers involved) one should have been protected under the practices of *memastia*. At the tactical level, there was some success in this approach, and the village was, as a minimum, discredited in the eyes of the other members of the district. However, there are two problems with this approach.

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First, the question must be asked as to whether or not the villagers saw the soldiers as legitimate guests, or as unwanted visitors? I cannot answer that. If guests, then the provisions of *pashtunwali* should have applied and our resultant actions can be seen as appropriate. If the soldiers and their leaders were not invited, then there is certainly scope to view the attack as justifiable in the mind of the attacker and his fellow insurgents.

Second, in using the principles and practices of *pashtunwali* to bring discredit to the village involved, one has to ask whether or not our actions reinforced the legitimate government of Afghanistan or eroded its authority in that particular district? Certainly there was nothing wrong with a response to the attack that would be understood by the local villagers, as well as demonstrating that we understood elements of their cultural makeup. However, in reinforcing the legitimacy of the *jirga* and the code itself, we were not reinforcing the short-term perspective with regard to the authority of President Karzai in that one particular region of Kandahar province.

The lessons for those involved with ISAF and OEF, and the possible implications for the conduct of operations are significant. Firstly, we must ensure that we understand more than the broad concepts and guiding principles of the code; we must delve into the nuances and gain a true understanding of how our actions will be measured by those that use *pashtunwali* to guide the conduct of their daily lives. Secondly, we must understand that *shari'a* and *pashtunwali* are not one and the same. There are significant differences between the two codes of conduct, and understanding one will not equate to understanding them both. Knowing this will enable one to discern motivation for actions and allow for practices to be put into place in our own dealings with Afghans that are more culturally appropriate, as well as allowing for better targeting with regard to the conduct of information operations. Lastly, there is the basic principle of understanding one's adversary. Knowing that many in the Taliban are ethnic Pashtuns, it is imperative that we understand their perspective on the world, and on combat in particular. As an example, understanding that bravery in battle and valorous conduct increase the level of honour of a warrior, it becomes relatively easy to comprehend why the insurgents keep hitting our fighting vehicles while largely ignoring our administrative echelons—there is no honour in attacking a weakness, while there is great honour in being victorious while attacking strength.

*Pashtunwali* is an essential element in the daily life of many of the people of Afghanistan, whether they are ethnic pashtuns or not. By increasing our understanding of this basic fact, we enable better interaction between them and ourselves, and we allow progress to continue. It is critical that we take advantage of the opportunities that this affords.

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## Endnotes

1. CTV.ca Staff, with a report from Steve Chao. "Canadian Soldier Injured in Axe Attack," CTV, accessed on 20 April 2007; available from [http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20060303/afghan\\_canada\\_bomb\\_060304/20060305/](http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20060303/afghan_canada_bomb_060304/20060305/).
2. A *shura* is essentially a meeting, often held in the open, where issues affecting participants are heard and discussed. This term will be discussed later in the paper.
3. This term varies in usage between pashtun, pathan, pushtun and pakthun depending on the author. Throughout this piece I will use pashtun and pashtunwali. Some of these terms may appear in quotes and images.
4. Based upon the experiences gained by the author, who at the time of the attack against Lt Greene, was employed as the Deputy Commanding Officer of Greene's parent battalion.
5. As cited in John C. Griffiths, *Afghanistan: A History of Conflict* (London: Carlton Books, 2001), 66.
6. Edward Girardet, "Afghanistan," *National Geographic* (November 2003), 40; Palwasha Kakar, "Tribal Law of Pashtunwali and Women's Legislative Authority," accessed on 7 April 2007; available from <http://www.law.harvard.edu/programs/ilsp/research/kakar.pdf>; and Mike Edwards, "Central Asia Unveiled," *National Geographic* (February 2002), 113.
7. Mike Edwards, 113.

8. Eric S. Margolis, *War at the Top of the World: The Struggle for Afghanistan and Asia* (Toronto: Key Porter Books, 2001), 10.
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13. Robert D. Kaplan, *Soldiers of God: With Islamic Warriors in Afghanistan and Pakistan* (Toronto: Vintage Books, 2001), 22.
14. Griffiths, 66.
15. As cited in Stephen Tanner, *Afghanistan: A Military History From Alexander the Great to the Fall of the Taliban* (Cambridge, MA: Da Capo Press, 2002), 113.
16. Bernt Glatzer, "Being Pashtun—Being Muslim: Concepts of Person and War in Afghanistan," *Essays on South Asian Society: Culture and Politics II* (Berlin: Das Arabische Buch, 1998), 7, accessed on 22 March 2003; available from [http://www.wardak.de/tribes/being\\_pashtun.pdf](http://www.wardak.de/tribes/being_pashtun.pdf).
17. Olivier Roy, *Islam and Resistance in Afghanistan: Second Edition* (Cambridge: Cambridge University Press, 1990), 12.
18. Ibid, 35.
19. Ibid, 36.
20. Margolis, 11
21. Ibid, 12.
22. Griffiths, 107. The fact that *pashtunwali* serves as a code of conduct, replacing legitimate governmental authority in many areas of Afghanistan, is a fact that many outside observers fail to recognize or completely comprehend. The basic reason for this is that the Afghan government lacks the means to exert its authority throughout its country. The reasons for this are many, and would constitute a separate paper, falling outside of the scope of this piece.
23. Palwasha Kakar, "Tribal Law of Pashtunwali and Women's Legislative Authority," 3, accessed on 7 April 2007; available from <http://www.law.harvard.edu/programs/ilsp/research/kakar.pdf>. It warrants note that of all sources consulted in the preparation of this piece, Palwasha Kakar's paper was the single most thorough reference, containing the most comprehensive examination of *pashtunwali*.
24. Ibid, 2.
25. As cited in Ali Wardak, "*Jirga*—A Traditional Mechanism of Conflict Resolution in Afghanistan," 7, accessed on 12 April 2007; available from <http://www.institute-for-afghan-studies.org/AFGHAN%20CONFLICT/LOYA%JIRGA/Jirgabywardak.pdf>.
26. As cited in Palwasha Kakar, 12.
27. Various authors have grouped these into major and minor elements, with no two authors seeming to agree on the exact composition of the elements of the code. Sources are Thomas Barfield, Neamat Nojumi and J. Alexander Their, *The Clash of Two Goods: State and Non-state Dispute Resolution in Afghanistan* (NP: United States Institute for Peace, 2006), 7, accessed on 7 April 2007; available from [http://www.usip.org/rule\\_of\\_law/projects/clash\\_two\\_goods.pdf](http://www.usip.org/rule_of_law/projects/clash_two_goods.pdf). Victoria Schofield, *Afghan Frontier: Feuding and Fighting in Central Asia* (London: Taurus Park, 2003), 116-117. Kaplan, 136. Palwasha Kakar, 3-4.
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29. Kaplan, 41.
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32. Palwasha Kakar, 4.
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34. Palwasha Kakar, 3.
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38. Ibid., 71.
39. Griffiths, 107.
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41. Ibid.
42. Ibid.
43. This concept was articulated to me by a village elder in the Maywand area of the Kandahar province in 2006.
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45. Schofield, 119.
46. Margolis, 74-75.
47. Palwasha Kakar, 4.
48. Ibid.
49. Palwasha Kakar, 4-5
50. Ibid.
51. Based upon personal observations between February and August 2006.
52. Palwasha Kakar, 5.
53. Ibid.

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54. Palwasha Kakar, 4.  
55. Ibid.  
56. Bernt Glatzer, "Being Pashtun—Being Muslim: Concepts of Person and War in Afghanistan." *Essays on South Asian Society: Culture and Politics II*, (Berlin: Das Arabische Buch, 1998), 4, accessed on 22 March 2003; available from [http://www.wardak.de/tribes/being\\_pashtun.pdf](http://www.wardak.de/tribes/being_pashtun.pdf).  
57. Ali Wardak, "Jirga—A Traditional Mechanism of Conflict Resolution in Afghanistan," 3, accessed on 12 April 2007; available from <http://www.institute-for-afghan-studies.org/AFGHAN%20CONFLICT/LOYA%20JIRGA/Jirgabywardak.pdf>.  
58. Ibid, 1.  
59. Palwasha Kakar, 6.  
60. Notwithstanding the fact that President Karzai is an ethnic Pashtun of the Durrani tribe.  
61. Karim Khurram, *The Customary Laws of Afghanistan: A Report by the International Legal Foundation* (NP: International Legal Foundation, September 2004), 8, accessed on 14 April 2007; available from [http://www.theilf.org/ILF\\_cust\\_law\\_afgh\\_10-15.doc](http://www.theilf.org/ILF_cust_law_afgh_10-15.doc). See this document for a detailed discussion of the actual conduct of a *jirga*, its rules and customs.  
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66. Griffiths, 107.  
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# BLITZKRIEG APPROPRIATION: TRACING THE CONCEALED ROOTS OF THE FAMOUS FORMULA

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Mr. David Francoeur

American military historian Williamson Murray observed, "The Second World War resumed, after twenty years' unquiet truce, the military revolution of 1914-1918. The greatest war in history was not a mere sequel: it was the continuation [of Germany's bid for world mastery]."<sup>1</sup> However, the new face of war was vastly different from the battlefields of 1914-1918. Trenches, which had inhibited movement and provided a sense of security for soldiers, no longer dominated the battlefield. Through the air cruised terrifying bombers and fighter planes, which wreaked havoc and instilled terror in the enemy's civilian and military populations. On the ground, tanks and armoured carriers surged forward at unheard of speeds, breaking through the enemy's weak points and striking at its vulnerable nerve centres. In response to the stagnant nature of much of the First World War, the opening of the new war was a war of movement, often of breakneck speed, in which air forces and armour would come to play a pivotal role.

Interwar technological and doctrinal advancements drew upon the lessons learned from the First World War. Some had seen the devastating potential of the tank—a weapon that integrated firepower, protection and mobility, after its introduction by the Allies in battles at Cambrai and Amiens where it "did more than any other weapon to tip the balance of power decisively towards the Allies."<sup>2</sup> Though the role of armour may seem obvious in retrospect, most of the armed forces were of the opinion that "the battlefield victories of 1918 provided no clear path" to the future of war.<sup>3</sup> Even British Prime Minister Winston Churchill, an early tank advocate, claimed: "tanks are finished" during the Second World War.<sup>4</sup> By 1939, despite serious criticism, tank design had been drastically improved from the British Mark I, which had appeared at the Somme in 1916. These extremely unreliable tanks, with their curious rhomboidal shape, had been armed with two naval 57 mm guns and four machine guns, were shielded by 6-12 mm thick armour plating, weighed around 28 tonnes and had a top speed of under six km/h.<sup>5</sup> By 1940, tanks such as the Russian T-34, considered the world's best at the time, were being produced in large numbers.<sup>6</sup> In stark contrast to the Mark I, the T-34 had a 76.2 mm tank gun, as well as two medium machine guns, an armour thickness of 70 mm, a weight of 21 tonnes, and a top road speed of 55 km/h.<sup>7</sup> Yet, more significant than technological innovations was progress in armour doctrine. Two British theorists, Major General J.F.C. Fuller and Sir Basil Liddell Hart, have been considered the most important contributors to interwar armour theory. Fuller's incredibly accurate vision of future mechanized armies explains why he is still considered by many to be one of the most brilliant military theorists of the twentieth century.<sup>8</sup> For the vast majority of the period after the Second World War, Liddell Hart was perceived as "a leading, if not *the* leading theorist of modern armoured warfare."<sup>9</sup> Since Hart's death, however, military historians such as Howard Winton, Kenneth Macksey, John Mearsheimer, J.P. Harris and Azar Gatt among others, have critically analyzed his work and have determined that he is guilty of plagiarizing much of Fuller's ideas and grossly exaggerating his own importance.<sup>10</sup> Interestingly, Fuller himself has also been demonstrated to be deeply indebted to other contemporary theorists such as his subordinate, Captain Giffard Le Q. Martel.<sup>11</sup> Furthermore, some have argued that important parts of Fuller's theories can be traced



back to Genghis Khan and Alexander the Great.<sup>12</sup> Nevertheless, it is the concepts these men advocated that make them relevant in the discussion of the origins of German armour theory.

One of the most astounding stories of the Second World War was the unparalleled success of the numerically and technologically inferior panzer divisions led by German General Heinz Guderian over the French and British armies during the Battle of France.<sup>13</sup> It is seemingly incomprehensible how German ground forces managed, in under three weeks, to do what they had been unable to do in four years during the First World War.<sup>14</sup> However, the defeat of France is precisely what occurred, much to the astonishment of many Allied and German commanders alike. Not surprisingly, there are a host of interpretations explaining why such success was possible for the German armoured forces. Murray argues that "The victory of 1940 was so crushing, so convincing, that it



Carl Von Clausewitz (1780-1831)

has served as *the* shining exemplar of the revolution in military affairs of the mid-twentieth century."<sup>15</sup> As he defines it in *The Dynamics of Military Revolution*, a revolution in military affairs, or 'RMA,' is a type of radical military innovation in which armed forces develop and "implement a new conceptual approach to warfare."<sup>16</sup> In this work and others, he strives to dismiss the traditional picture that has explained German success, which he summarizes as: "the Germans, reacting to defeat in World War I, developed a revolutionary approach to war, one that emphasized maneuver and armored war."<sup>17</sup> This argument implies that innovations in German doctrine, and not technology, led to their incredible success in the opening years of the Second World War. Though Murray is adamant in underlining the fragility and contingencies of the German RMA, he nevertheless concludes that it was Germany's doctrine that

ultimately led to its later success. Curiously, Murray does remark upon the importance of British contribution to early German armoured forces, but fails, as many others have, to draw the most obvious conclusions pertaining to the roots of 'Blitzkrieg.' In consequence, Murray fundamentally places himself within the very school of thought he believes is flawed. Furthermore, by underlining the importance of vital French tactical and operational errors in enabling German success, Murray effectively cripples his thesis that effective German innovation occurred. It is difficult to comprehend how panzer doctrine could have been truly innovative or revolutionary if its ultimate success hinged upon the incompetence of the enemy, as Murray suggests.

Such analysis can be seen within the context of a much broader historiographical error. According to military historian Azar Gat in *British Armour Theory and the Rise of*



Colonel-General Hans von Seeckt (1866-1936)

the *Panzer Arm*, revisionism of panzer success has gone too far.<sup>18</sup> In this work, Gat outlines the historical development of arguments surrounding the rise of the German panzer division. Immediately following the war, the commonly held thesis among military analysts was that "Fuller and Basil Liddell Hart invented the concept of deep armoured penetration from which the Germans developed Panzer forces and the Blitzkrieg."<sup>19</sup> Eventually, revisionists such as prominent political scientist John Mearsheimer joined the debate and argued that Liddell Hart had, in fact, contributed very little to the German blitzkrieg strategy and that his influence had been grossly exaggerated.<sup>20</sup> Gat points out that earlier historians such as Brian Bond and Jay Luvaas had been inclined to agree.<sup>21</sup> Military historian James Corum, in *The Roots of Blitzkrieg*, argued that there is "no evidence that Liddell Hart was widely known in the German Army or that he had any influence

whatsoever upon German tactical thinking."<sup>22</sup> Murray, who has been discussed above, also fits in to this school of thought. Though normally a sound technical writer, the fragility of this argument seems to suggest an internal conflict in which Murray has begun to doubt the veracity of his own claim. In *Liddell Hart and the Weight of History*, Mearsheimer argues that the German idea of "deep strategic dives," crucial to their early success in the Second World War, was absent in Liddell Hart's interwar writings. He concludes, therefore, that Hart only adopted this strategy *after* the beginning of the war, and having benefited from witnessing early German success.<sup>23</sup> Gat points out that Mearsheimer and others have neglected to consult Liddell Hart's regular column in the *Daily Telegraph*, and from 1935, *The Times* where the bulk of his theories of armoured warfare can be found.<sup>24</sup> In these columns one can uncover the "most brilliant and prophetic blueprint offered at the time" of Germany's future strategy for the panzer arm.<sup>25</sup> Regarding the claim that Hart's influence in Germany had been exaggerated, Gat demonstrates, using appropriate German sources such as the *Militär-Wochenblatt*, that Hart and Fuller's contributions to the formulation of blitzkrieg were essential.<sup>26</sup> Azar Gat's clear and thoughtful analysis is successful in demonstrating how decisively the engineers of the German Panzer arm were moulded by British theory. Effectively reversing the revisionist argument, Gat brings the discussion full circle from its beginnings early after the Second World War.

As noted above, "The respective roles of British influence, Guderian, and the German general staff in the creation of the Panzer arm have all become contentious subjects in recent years."<sup>27</sup> Despite limited recent developments, the vast majority of scholarship still affirms that the early success of the German panzer arm lay in innovative and revolutionary doctrine produced and implemented by individuals such as Heinz Guderian and Hans von Seeckt, a high-level German staff officer during the First World War. By analyzing Guderian's memoir, which outlines German strategy, and compares this to Basil Liddell Hart and J.F.C. Fuller's earlier works, this thesis will be thoroughly refuted. Instead, it will become evident that very little innovation in armour doctrine took place in interwar Germany, and panzer theory was largely an adaptation of earlier British

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ideas that were hardly original to begin with. Consequently, Germany was only able to achieve brief success and was ultimately unable to win the war against an enemy that by 1941 included a coalition of England, Russia and the United States. If a battlefield asymmetry did exist during the Battle of France, which results would affirm, the answers must lie elsewhere.

In the foreword to the English translation of General Heinz Guderian's memoir, Liddell Hart lavishes praise upon the German commander. He describes him as a man who "had a tremendous impact on the course of events in our time."<sup>28</sup> Liddell Hart effectively argues that Guderian was *the* primary figure behind German military success and that without him, "Hitler would have met early frustration in his offensive efforts when he embarked on war."<sup>29</sup> This is in fact the very impression that Guderian promotes within his work. From a critical standpoint, his memoir does include a degree of hyperbole regarding his role in the success of the panzer arm and must be viewed with caution and scepticism. Nevertheless, this detailed work provides the "fullest, most factual and most revealing personal account of the war from the German side that has yet emerged."<sup>30</sup> Heinz Guderian *did* play a central role in promoting what became known as German armour doctrine; he actively participated in the training and creation of panzer forces, and personally led the assaults in the East and West—on some occasions even manning machine guns and anti-tank guns to aid his subordinates.<sup>31</sup> However, Guderian can be harshly criticized and discredited for the very same reasons as Liddell Hart has been in recent years. Both were vain and egocentric, and claimed to provide innovative doctrine when in fact they consciously adopted earlier theories and largely concealed the original sources of such ideas. Using Guderian's memoir as an accurate representation of German interwar doctrine on armoured warfare, the British origins of panzer success will be displayed in the earlier writings of J.F.C. Fuller and Basil Liddell Hart.

Early in his book, *Panzer Leader*, Guderian does make a brief reference to the origins of his armour theories. He describes how in 1922, after being appointed as a member of the General Staff where he began his technical career, he was in search of military literature to feed his new interest in armoured vehicles. As he says, "The English and French had far greater experience in this field and had written much more about it. I got hold of their books and learned."<sup>32</sup> Guderian made good use of this experience, and after further research, became convinced by the arguments of three men and was subsequently converted to their vision:

It was principally the books and articles of the Englishmen, Fuller, Liddell Hart and Martel that excited my interest and gave me food for thought. These far-sighted soldiers were even then trying to make of the tank something more than just an infantry support weapon. They envisaged it in relationship to the growing motorization of our age, and they became the pioneers of a new type of warfare on the largest scale.<sup>33</sup>

This in itself contradicts the bold statements made by individuals such as Corum who argued that Liddell Hart was largely unknown to German officials. On the contrary, Guderian is not only familiar with Hart and his colleagues, but had become deeply interested in their arguments. Later in his memoir, Guderian describes how he was approached by Colonel Stottmeister regarding teaching the M.T. Instructional Staff about 'tank tactics.' Having no formulated doctrine of his own, he admits that for many years, German translations of English handbooks were used as theoretical manuals and were the basis of their understanding of armour.<sup>34</sup> Therefore, in the original version of his work, Guderian does at least acknowledge the importance of previous theorists. However, it is disappointing that he fails to humble himself and tie his later, extremely successful armour tactics, back to their rightful owners.



Sir Basil Henry Liddell Hart  
(1895-1970)

By 1929, Guderian became convinced that "tanks working on their own or in conjunction with infantry could never achieve decisive importance."<sup>35</sup> He argued that divisions made up of all arms that had been "brought up to [the tank's] standard of speed and of cross-country performance" were necessary to ensure success.<sup>36</sup> This idea of mobility within the larger framework of combined arms warfare was a fundamental pillar in German armour doctrine. However, Fuller and others had argued years earlier in a similar vein that the most effective attacks would be spearheaded by tanks and supported by airplanes, infantry and artillery.<sup>37</sup> Furthermore, the idea of mechanizing the entire army suggested by Guderian was similar in many respects to Fuller's 'Plan 1919,' which had underlined the importance of a "fully mechanized and highly mobile army."<sup>38</sup> Herein lay one of the major differences between Fuller and Liddell Hart's conceptions and one of the few areas where Hart did make a significant contribution to

armour development. Contrary to Fuller, who later advocated an "all-tank army," Hart believed the answer lay in an "all-mobile army—in which all the tank aiding arms would be mounted in armoured vehicles."<sup>39</sup> Such a suggestion is very similar to Guderian's later prescription that "the effectiveness of the tanks would gain in proportion to the ability of the infantry, artillery and other divisional arms to follow them in an advance."<sup>40</sup> Mobility and combined arms warfare, firmly implanted within blitzkrieg strategy, provided the speed and cooperation necessary for deep and rapid penetration followed by immediate exploitation. Guderian advocated that the purpose of the panzer arm was to "achieve a deep and rapid break-through, which initial success could be immediately exploited by the tanks' speed of advance."<sup>41</sup> As he often repeated, there was "no time for hesitancy or delay" in such a strategy, as speed of action and decision were the determinants of success.<sup>42</sup> During an audience with Adolf Hitler, Guderian had a heated argument with the Chief of the Army General Staff, General Halder, concerning the proper employment of armour forces. Similar to his earlier statement above, Guderian repeated that:

The essential was that we use all the available limited offensive power of our armour in one surprise blow at one decisive point...and then immediately to exploit any successes gained without bothering to wait for the infantry corps.<sup>43</sup>

This statement provides a wealth of information concerning the later German approach used in France and Russia. Guderian was a staunch advocate of this strategy, and so serious was he in believing in its potential that on several occasions he disobeyed direct orders in order to follow it.<sup>44</sup> It also reveals the importance attributed to surprise, something that Guderian ceaselessly strived to achieve in his campaigns in the East and West. His contention that "primary importance must be attached to the element of surprise" was not dissimilar to Hart's earlier prophecy that in the next war, "surprise and manoeuvre will reign again."<sup>45</sup> Furthermore, Guderian's heated debate emphasized the significance of concentration at the decisive point. This was to "strike not against [the enemy's] strongest bulwark (as Clausewitz would suggest), but against its most vulnerable spot" where deep penetration and exploitation would be most effective.<sup>46</sup> Guderian was an advocate of exploiting such 'soft spots' as can be seen by his vocal support of the 'Manstein Plan' for the invasion of France that suggested an armoured force should drive through the undefended Ardennes Forest. The U.S. War Department Technical Manual of 1945 correctly described that "the Germans stress the need for the concentrated employment, at the decisive place and time, of the entire combined command of tanks and other arms."<sup>47</sup> It is also significant to note that in the argument



between Guderian and Halder, one can see an allusion to Guderian's realistic belief in the necessity of using such a plan. It is possible that he only considered these 'radical' British theories on armour employment due to a lack of feasible alternatives stemming from the limited resources at his disposal. Regardless of the reasons for doing so, passages in Liddell Hart's *Paris: the Future of War*, demonstrate that these ideas were not original. Foreshadowing Guderian, in 1925 Hart put forward that tanks should be "concentrated and used in as large masses as possible for a decisive blow against the Achilles' heel of the enemy army, the communications and command centers which form its nerve system."<sup>48</sup> It is here that can be seen a second fundamental difference between Hart and Fuller, and may explain why Liddell Hart is more often associated with panzer development than his English colleague and mentor. While "Fuller brilliantly expounded from 1918 onward the idea of a *deep tactical penetration*, he did not advocate the *deep strategic penetration*, as [Hart] did."<sup>49</sup> Therefore, Fuller preferred "an advance by fairly long but limited bounds, instead of driving on as fast and as far as possible."<sup>50</sup> This theory of the 'expanding torrent' proposed by Hart was avidly copied by Guderian and can be seen in many of his battlefield decisions. For example, when Panzer Group leader von Kleist ordered a halt to the advance into France, Guderian flatly refused to abide by these orders and argued that the panzer forces should surge forward, even without considerable support forces.<sup>51</sup> Though some may argue that such examples only reflect the beliefs of one individual, Guderian was the virtual embodiment of blitzkrieg. His beliefs, more than anyone else, reflect the final nature of the German offensive on the Eastern and Western fronts.

Despite borrowing major elements of British theory in order to develop what later became called *blitzkrieg*, Germany did produce a limited degree of innovation embodied in the unique belief in effective communication and decentralized leadership. Though British theorists had already suggested the radio was vital to effective armour mobility, the Germans improved upon this idea. During the invasion of Poland and in subsequent campaigns, "Hurrying Heinz" made good use of German armoured command vehicles in order to accompany tanks on to the battlefield.<sup>52</sup> These invaluable mobile communication posts were equipped with radios allowing German commanders to stay in constant contact with corps headquarters and armour divisions. Also, Guderian's own free reign on the battlefield and his relative liberty in making rapid decisions embodied



German Tanks and Infantry advance with speed across the Russian steppes, Summer 1942.



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the distinctly German emphasis on decentralized leadership. Guderian was a staunch believer in the doctrine that “unit commanders should be as far forward [in battle] as possible.”<sup>53</sup> He would prove to be very successful at doing this, making immediate decisions—based on first hand knowledge of the terrain, the enemy, the state of his own panzers, and the army’s morale—that allowed the most effective use of the tank’s speed and explosive capabilities. Guderian would later explain that the combination of these two factors would help to mitigate Germany’s many numerical and technological inferiorities.<sup>54</sup>

The development of interwar armour doctrine was plagued by a great deal of plagiarism and very little acknowledgement of its true authors. Influential individuals like General Heinz Guderian and Sir Basil Liddell Hart have left written records that selfishly exaggerate their importance beyond what can be historically demonstrated. As a result, military historians of the last few decades have had difficulty attributing the credit for the successes during the Second World War where they are due. In the attempt to discern the truth, revisionism of this subject has gone too far and has led to a flawed understanding of the German panzer division’s origins. Revising the revisionists is in order, and scholars such as Azar Gat have begun to make substantial progress in this endeavour. As historians Matthew Cooper and James Lucas have said:

The German panzer arm was a failure. A heroic failure perhaps, but a failure nonetheless. Despite the military genius of a number of its commanders, the outstanding quality of its troops and its early magnificent achievements, which included the humbling of the world’s most highly rated armies, the Third Reich’s armored force proved unable to live up to its promise.<sup>55</sup>

The debate attempting to answer ‘why’ is far from over. It is clear that to have been so successful during the Battle of France, the German armed forces must have possessed significant advantages over its enemies. As observed above, there has been a tendency among historians to point to a revolutionary use of armoured divisions as the root of German supremacy. However, critical analysis of the evidence indicates the opposite, a fundamental lack of originality in German armour theory during the interwar period. Though the subject of another discussion, this very appropriation of foreign ideas, though ensuring initial success, may have also ultimately doomed the Nazis to failure during the Second World War. Murray’s thesis that “Post-World-War-I German doctrine consequently emphasized conceptions that were starkly different from those of the British and French” cannot be substantiated in light of the fact that the roots of blitzkrieg have been traced back to earlier British theories, in particular, those of Sir Basil Liddell Hart and Major-General J.F.C. Fuller. The latter’s brilliant theories and Hart’s few significant contributions accurately prophesied the German defeat of France in 1940. Despite Germany’s innovations in two distinct areas, these were only effectively utilized within a British-borrowed framework. Therefore, German armour doctrine was hardly revolutionary, and as Guderian himself admits, despite an Allied defence that could not have made greater mistakes in their preparations, German victory in France was at times “almost a miracle.”<sup>56</sup> In the same way the term ‘Blitzkrieg’ was of foreign import, so was the bulk of German understanding of what would become the backbone of an incredible military achievement of the twentieth century, the armoured fighting vehicle.

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## About the Author

David Francoeur is currently attending Queen’s University in Kingston and is pursuing his Bachelor of Arts (BAH) in History. Though his academic interests are broad, his studies thus far have placed particular emphasis on the history of Antiquity, the Third World, and Warfare. With regards to the latter, analysis of the complexities of modern warfare and its repercussions for the future have recently piqued his interest. He is also fascinated by the history of China and the

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country's meteoric rise upon the world stage. David will be spending his penultimate semester beginning in September 2007 studying at the University of Fudan in Shanghai in order to fully immerse himself in the country's culture, language and history.

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# SINEWS OF STEEL: CANADIAN RAILWAY TROOPS ON THE WESTERN FRONT, 1914-1918

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Major George Jager, CD

When the First World War ended with the signing of the Armistice on 11 November, 1918, Canada had more than 12,000 troops employed in the Canadian Corps of Railway Troops, the second largest unit in France after the Canadian Corps. These troops were responsible for the repair, maintenance and laying of standard gauge and light gauge railway lines, their operation, and the overall administration over the entire network of railways within the British Sector in France. Unlike the Canadian Corps, these troops worked for the Director General Transportation of the British armies in France.<sup>1</sup>



Photo courtesy of the Imperial War Museum CO 1289

In forward areas trains were split and hauled by tractors. This historic picture shows the first train over Vimy Ridge after the Arras offensive of April 1917.

When the First World War broke out, it was expected to be a war of the offence—over by Christmas. By December 1914, it was clear that this was going to be a different type of war and that there would be a great need for troops and supplies. “The most important characteristic of the war [First World War] was its scale...In August 1914 some six million men marched off to war...Wartime recruitment, including conscription,

produced a full United Kingdom total of 5,704,416 and a British Empire total of 8,654,467.”<sup>2</sup> While the year 1915 was one of small operations that were not successful in the main, it forced the British government to begin a general mobilization for an extended war. This meant that the country would need to turn itself into a wartime economy, focusing its efforts on war supplies as the main priority. The ammunition shortages that were an issue in 1915 were resolved by 1916 and the British at the behest of the French (to relieve pressure on Verdun) planned and executed the assault on the Somme. While much has been written on the tactics of the Battle of the Somme, only Ian Brown, in *British Logistics on the Western Front: 1914-1919*, has addressed the problems incurred in the provision of administrative support, which proved to be one of the failures. It is at this point that the recruitment of railway men from Canada became a priority, above even that of combat troops, and begins to identify the importance of their efforts. These troops came from all parts of Canada, most had railway experience (the first troops were recruited from the ranks of the Canadian Pacific Railway) by virtue of the fact that the previous 25 years in Canada had seen a massive railway-building boom, and found their unique skills vital to forging the sinews of steel that supported the strength of the British armies in France. Using war diaries, personal diaries and reports, their story is told against the backdrop of the general history of the Allied actions in the British sector from the time the first Canadian Railway Troops first landed in France in

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1915 to the day the Armistice was signed. When the war ended, units of the Canadian Railway Troops were disbanded and, unlike many other units, they were not perpetuated in the Militia, thus they and their efforts have generally been forgotten. In this paper I will tell their story and will show how their efforts and sacrifices were instrumental in changing British tactical and strategic operations and thus brought the war to a more rapid and successful conclusion.

The use of railways to support war was not a new phenomenon of the First World War. As soon as railways began to expand their steel rails throughout Europe, North America and elsewhere, their application to military tactics was quickly realized. One of the first recorded uses of railways for military purposes was in Canada. "The year was 1837 and the occasion was the employment of the Champlain and St. Lawrence Rail Road, which had opened only the year before, to move British Soldiers during the Lower Canada Rebellion of that year".<sup>3</sup> Railways were also used to speed supplies and troops on the line of advance during the American Civil War<sup>4</sup>.

During the war with Austria in 1866, von Moltke the Elder made extensive use of the railways to move troops south into northern Bohemia:

[He] envisaged the coming of the railway as a promised extension of Napoleonic strategic mobility. By moving massed, yet dispersed, armies, with their supplies at six times the speed of marching troops, he foresaw the possibility of achieving rapid, surprise concentrations on a chosen battlefield as well as the feasibility of maintaining long sieges or unbroken frontages of several hundred miles, even in the depths of winter.<sup>5</sup>

The reality was hardly as smooth as desired by von Moltke. While the railway system was able to move large quantities to the railheads, the system broke down when it came to moving supplies to the troops in need. The overall planning was incomplete and added to the congestion of the system rather than making it a force multiplier.<sup>6</sup> "At the heart of the trouble lay the inability of the three Railway Battalions, formed by von Moltke in 1859, to carry out their task. Capable of carrying out minor repairs, they were ill-equipped to rapidly construct emergency loop lines or sidings".<sup>7</sup> While the idea of using railways to rapidly move large quantities of supplies was a sound decision, the complexity involved was generally beyond the experience of the railway troops and was not appreciated by the commanders on the ground. It was fairly clear that the interface between the user and the supplier was ill-defined and unworkable. It was also clear that by the time of the Franco-Prussian war improvements had not been instituted and the same levels of congestion and lack of supplies affected the Prussian advance. If not for the rapid collapse of the French forces, the Prussian armies would have been hard-pressed to continue their advance for any length of time.<sup>8</sup>

By 1914, the quantities of supplies that were required for the daily sustenance of troops and horses and the re-supply of munitions and petroleum oil and lubricants (POL) were much greater than had been experienced in 1870.

...following the enormous rise in the consumption of ammunition, and other prerequisites of war (including for the first time, motor fuel), armies found themselves no longer able to take the majority of their supplies away from the country. Whereas, even as late as 1870, ammunition had formed less than 1 per cent of all supplies (6,000 tons were expended as against 792,000 tons of food and fodder consumed), in the first months of World War I the proportion of ammunition to other supplies was reversed...<sup>9</sup>

British troops were fed approximately one and a half pounds of fresh rations per day<sup>10</sup> to supplement the tinned rations of hard tack crackers and bully beef. There was also a requirement for water to be made available and, once trench warfare became the





Photo courtesy of the Imperial War Museum Q 1453

**A man-hauled trolley taking heavy shells up to guns near Ovillers during the Somme campaign, September 1916.**

norm, there was a need to have fresh water delivered in quantity to forward points.<sup>11</sup> By 1915, the need for food and forage was 4,400 tons per day.<sup>12</sup> In addition to the amount of supplies needed by the new armies, their size had grown to immense proportions: "in 1914, the combat troops of a corps took up 20 miles and more of road space, transport companies often found it difficult to reach them in one days march."<sup>13</sup>

Horses, on the other hand, ate ten times as much as their human counterparts and fodder had to be supplied on a daily basis as well.<sup>14</sup> While this requirement changed little during the First World War, the technological advances made in the art of artillery and machine guns increased tremendously, putting immense pressures on the supply system and limiting the ability of the commanders to plan their operations.

The general picture of 1915 operations then, is one of inconclusive campaigns on both sides. The detailed picture is one constant small local actions along the front as each side established the strengths and weaknesses of its position vis-à-vis the other side, and concentrated on improving its trench systems and lines of communications. In the British sectors, these were not as given much attention as they deserved, since the prevailing strategy was still based on the belief that the 'war of movement' was bound to begin soon. Also, not enough material was yet being carried in the rear area to show the inadequacy of mechanical road and horse transport for the concentrated and sustained carriage of supplies.<sup>15</sup>

The one major lesson that became clear in 1915 occurred during the battle of Neuve Chapelle. General Rawlinson, commander of IV Corps, was responsible for planning the battle. Based on information passed to him from General Haig<sup>16</sup> when he had been commander of I Corps, he understood that success against a dug-in enemy would require the use of a heavy artillery bombardment, followed by a barrage.<sup>17</sup> Rawlinson's plan was successful on the first day and Neuve Chapelle was captured, however the follow-on attack on Aubers Ridge was unsuccessful, due to a lack of ammunition.<sup>18</sup>

...but, as the months passed, the ever growing British armies crossed the channel in formidable numbers and tentative offensives were undertaken at Loos and Neuve Chapelle in 1915. They were not distinctly successful in a military sense, but many salutary lessons were learned. One of these was the value of gunfire; another (though it was not yet successfully learned) was the value of railways. Even in trench-warfare, mobility was found to be essential. This was not so much the mobility of the general battle zone as the mobility of the intense battle zone. It was demonstrated that in order to render successful a limited offensive a strong and almost overwhelming concentration of guns was necessary and, in order to effect such a concentration efficiently and expeditiously, and in order to provide unfailing supplies of ammunition, railways had to be built, developed and maintained.<sup>19</sup>

The failure of Neuve Chapelle was blamed on the lack of shells and that lead to the shell crisis of 1915, which ultimately brought down the British Government. It became clear that the economy would have to be geared towards war if victory was to be the outcome.<sup>20</sup>

The problem of supplying the shells to the front had not been an issue due to the fact that there were not that many to deliver. Once it became obvious that a newer, deadlier phase of warfare was developing and the ammunition requirement would increase exponentially, the issue of delivering the supplies in these massive quantities would become a concern. However, only after the Somme battles of 1916 did the Allies realize the magnitude of the problem.



Photo courtesy of the Imperial War Museum Q 1348

A mule-drawn Van Ness-type truck in Carnoy Valley during the Somme campaign.

"In the early stages of the war the French General staff was entirely responsible for construction and maintenance of the railways in the British as well as the French zones of operation in France".<sup>21</sup> The French railway system had developed as a result of the events of the Franco-Prussian war; the maintenance of large field armies under a central military control, with a strong interface with the civilian railway authorities in those areas outside of the army

zones.<sup>22</sup> Due to the small size of the British force (five divisions) in comparison to the French armies, British influence on the railway system was non-existent. The Royal Engineers sent six railway construction companies, but they did very little work. In addition, Canadian railway contractors were requesting permission to raise a railway construction unit, but were turned down. The idea of using light railways was raised by civilian contractors, but Lord Kitchener, Secretary of State for War, replied "That is not our way of working."<sup>23</sup>

In Canada, as early as October 1914, a memorandum was submitted for the raising of railway troops for a second contingent. The author of the memorandum, Mr. A. MacDougall, noted that, as there were many men with experience in constructing the Transcontinental Railways and a similar type of construction that would be needed in France, it would make sense that a unit of railway men be raised:

...it would seem that the experience thus gained in the operation of lines over temporary structures and with irregular and incomplete roadbed would be in a large measure analogous to conditions likely to be met with in keeping up communication with an army advancing over a country in which the enemy had wrecked existing structures and partially demolished the road bed...it is therefore suggested that a corps of specially-trained men organized in such a way as should be deemed advisable would be a valuable adjunct to the proposed second contingent.<sup>24</sup>

In a letter sent to Sir Robert Borden, on the same date, MacDougall clearly outlines the reasons that such a unit would be valuable to the allied cause. MacDougall notes with an uncanny prescience the requirements that the Allies would need when they finally broke the German defensive lines in August 1918.

The chief reasons are—

◆ It is vital to the success of the Allied troops, when a long distance for their base, that their lines of railways should always be capable of handling heavy traffic at high speed.

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◆ The Germans will have totally destroyed every bridge and culvert, as well as long sections of road bed when they retreat.

◆ The most rapid method of replacing these bridges, etc, is to replace the permanent structures by wooden pile trestles to one side of the old railway line.

◆ In no country in the world can semi-permanent railway structures be built with greater speed than in Canada. This is the result of experience gained in building thousands of miles of railway with the most efficient and modern machinery. The European Engineers had had very little experience in this class of work, due to the practice in Europe being to always build permanent structures.

◆ A comparatively small amount of money will equip and maintain a construction force, capable of assisting to win the war out of all proportion to their numbers.<sup>25</sup>

The newspapers of the day reported that the Army Council<sup>26</sup> however, after inquiries by the Governor General to the Secretary of State for the Colonies, declined the offer. "Army Council highly appreciates patriotic offer regarding railway men. At present it is not desired to accept it but Army Council may be glad to accept later on."<sup>27</sup> It is important to note that each of the points raised were to be identified by the British after the Somme offensive of 1916.

With the situation in France changing into a period of more static warfare, the British Army Council sent a request for railway troops, "Army Council would be glad to accept corps of railway men if offer made in your telegram of 10<sup>th</sup> October still holds good. Skilled construction men are wanted and they would be required to enlist for duration of war."<sup>28</sup> On the 22<sup>nd</sup> of February 1915, the Government approved the creation of a railway construction unit, to be named the Canadian Overseas Railway Construction Corps (CORCC), organized primarily by the Canadian Pacific Railway Company, "given a reasonably free hand in the selection and appointment of officers, non-commissioned officers and men."<sup>29</sup>

Under the Command of C.W.P. Ramsey, Chief Engineer of Construction for the C.P.R. commissioned lieutenant-colonel, the unit was mobilized in St. John, New Brunswick, and sailed to England. Upon completion of work-up training, the unit was sent to France on 24<sup>th</sup> August, 1915. The unit was attached to the Belgian Army and was employed in laying 60 centimetre track as well as the construction of concrete machine-gun emplacements and other engineering construction. It must be noted that most men recruited for the CORCC, and subsequently for the Canadian Railway Troops, did not usually receive any training in weapons handling, or trench warfare for that matter. They were recruited for their knowledge in railway operations and construction and it was only as the war progressed that they found themselves in situations that required weapons, especially when the railways were pushed to within short distances of the rear trenches.

One of the most innovative works completed by the unit was the construction of a light railway system of 2-foot gauge, using 9-pound rail<sup>30</sup> for the carriage of supplies. It required horses and some mechanical power to operate, but was considered an improvement over horse and wagon and man transport.

...stating that the Corps' principle work in Belgium had been the building of a narrow gauge railway behind the first line of trenches extending the whole of the German front...train is powered by 7 ft gasoline engines 3 ft high...by this train food and munitions and everything needed in the trench is conveyed during the night.<sup>31</sup>

The CORCC recommended a power operated 2-foot gauge railway on 30-pound rails, but as the authorities believed that a breakthrough was pending and the war of movement would return to the front, the idea of light railways was not pursued.<sup>32</sup> In September the unit was scheduled to sail to Salonika, but ended up spending time in England before returning to France in November 1915.<sup>33</sup>



Photo courtesy of the Imperial War Museum Q 5003

A trench-tramway terminus on the outskirts of Arras, showing typical trucks and conditions. April 1917.

transportation system tooth and nail, and I am now of the opinion that the powers that be are beginning to see a great light.” Ramsey goes on to describe what he saw as an inefficient use of motor transport and road maintenance that was costly in both manpower and vehicles. He estimated that by using railways to within three miles or so of the front, the armies could do away with 75% of the motor transport requirements, thus reducing the costs of operation and manpower. Lorries at that time could carry a maximum of three tons while railway cars could carry ten tons.<sup>35</sup> Ramsey also acknowledged that motor transport would be vital in the event of a rapid advance until such time as the railways could catch up. He also pointed out that railway lines are hard to damage three miles behind the front, with only temporary damage being done to the rails and sleepers, which could be easily repaired.<sup>36</sup>

Ramsey also identified a great need for mechanical assistance in the form of steam shovels and pile drivers. Within one month of the request, the government approved the purchase of two 2½-yard shovels at a cost of \$16,000 and two pile drivers at a cost of \$9000. The costs included a complete overhaul as well as spare parts, tools and other ancillary equipment.

As Ramsey and most of his unit had come from the Canadian Pacific Railway, and were familiar with the equipment, it made the purchase a much easier decision. It must also be noted that there was none of this type of equipment in France or England, and it would cut down on the amount of manual labour expended on loading ballast and other rail-building materials.<sup>37</sup>

By the early days of 1916, the supply of ammunition had become less of an issue for the British armies. In dealing with administrative issues, basically the logistic tail to the combat teeth of an army, there has always been a desire to have more teeth than tail. The problem, however, from a logistical standpoint is that the balance that must be struck usually requires a greater effort on the part of the tail than is understood by those concerned with the teeth. The British Army of the First World War was guided by the two-part 1912 Field Service Regulations. The problem lay with the first part, in which operational commanders were given carte blanche to ignore the logistical aspects of their campaign unless there was a problem. The difficulty with this arrangement was that the logistics staff was not connected to the operational staff and thus the two groups

could not coordinate the planning of the campaign, or even the tactical operation, much past the first few days. It was the difficulties of 1916 that brought to the fore these issues



Photo courtesy of the Imperial War Museum Q 35469

An ammunition train of loaded D wagons headed by a Baldwin 4-6-OT pulls out of a rear railhead in the Ypres salient.

and it was Haig who realized that there was a dire need for intervention on a major scale when it came to reorganizing the administrative system of the British armies in France.<sup>38</sup>

The German attack on Verdun placed a great deal of pressure on the French armies and there was a demand that the British take some of the weight by attacking in the British sector. The British attack on the Somme began on July 1<sup>st</sup> and became known more for the immense

loss of life than for any other factor. Yet it was here that the British High Command realized that in order to successfully defeat the German armies, the supply system had to keep up to the demands of the assaulting units. It became clear early on that the British administrative system was incapable of maintaining the level of intensity mandated by the strategic battle plan and was partially responsible for the inability to achieve a successful outcome.

...Yet there resided the dilemma of generals who launched men into shell disrupted ground which denied immediate access to even motor transport. Unless infantry bore sufficient supplies on their backs they would be starved of the means to hold objectives and would be thrown back on their supporters. Yet until objectives on the commanding ground were secured there was no hope of engineers pushing through roads or light railways to make good the deficiencies. So the struggle on the Somme, like its counterpart at Verdun, festered on into the autumn because of the interaction of man's vulnerability to a devastating firepower and his inability to sustain supplies to the front.<sup>39</sup>

It is interesting to note that as 1916 progressed the railway policy continued to be adjusted. In the early days of the war, the QMG policy for use of military railways was as follows:

- ◆ Broad gauge railways should be advanced as far as possible.
- ◆ That tramways should be laid down from the trenches back to the most forward position which horse transport could reach.<sup>40</sup>

This policy was clearly unworkable and in 1915 the Canadians pushed the railways as close to the trenches as possible.

...it will be apparent the scheme was tentative rather than complete. A gap existed between railhead and tramways—roads were to be used for transportation; but in many cases roads were impassable and it was found necessary to extend the trench tramways back to the actual railhead.<sup>41</sup>

As the British gained more and more experience in the new static warfare, the railway policy was adjusted:

Railway policy March 1916—

60 cm tramways between trenches and points beyond which horses could not work, track should be 9lb steel. Locomotive traction would only be used on broad



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and metre gauge railway in an advance and on the heavier type of 60cm when the armies were in a stationary position.<sup>42</sup>

By the time the Somme offensive was a month old, the policy was once again being revamped:

Railway policy August 1916—

Light railways should be extensively used along whole of British front for the purpose of eliminating to as great an extent as possible the employment of road transport and to lighten the manual labour which fell in a great degree on the troops actually holding the lines.

Purpose for new construction—

- ◆ to transport heavy gun ammunition
- ◆ to transport lighter ammunition
- ◆ to transport R.E. [Royal Engineer] stores and material
- ◆ to transport general supplies.<sup>43</sup>

The heavy fighting on the Somme front, which began July 1<sup>st</sup> 1916, and continued with varying fortune and undiminished ferocity through the autumn and winter months, had vividly demonstrated that the roads could not satisfactorily deal with the traffic which passed over them. A large amount of horse transport was diverted across country during the summer months when the rough trails were passable, but when winter conditions prevailed, this had to be abandoned and it became necessary to use the roads. As the fighting became more intense and the concentration of forces grew, the problem of transportation became more acute. The decisions of the Commander-in-Chief taken in August 1916 was largely the result of these conditions and it was now decided that light railways both metre gauge and 60 centimetre should be used extensively for the whole of the British front.<sup>44</sup>

In order to gain an appreciation of the sheer volume of supplies required for the Somme offensive, the following figures can offer at least a glimpse of the administrative burden that faced the entire force. "Ammunition trains began to run at a rate of seven per day to the railheads, and then have to be moved to the guns...each division [would] have on the ground the equivalent of the loads of 36 miles of motor lorries."<sup>45</sup> Yet with all of this ammunition and the number of troops allocated to the attack, the expected gains did not occur and the attack ground on for several months. The Allies, even with such a large (at that point) amount of ammunition available, did not have the administrative resources to continue to supply the front in a timely manner.

Until a system had been created that could [sustain a large scale offensive], the BEF's would invariably have the same character as the Somme—a prolonged drive into German lines, using ever-increasing quantities of ammunition and increasingly damaging the transportation infrastructure, until the offensive could no longer be maintained.<sup>46</sup>

To overcome this shortfall, it was decided that an expert in transportation be brought in to study the transportation organization and to subsequently help sort it out. For this role, the British turned to Sir Eric Geddes. Geddes was the deputy general manager of the North Eastern Railway and was asked by the government to study the sustainment system in France. "His genius lay not so much in the way of doing things, as having them done for him."<sup>47</sup> He was able to break the system down into five categories and then studied how each of them worked and related to each other. The five categories were docks, railways, canals, light railways and roads.<sup>48</sup> Geddes' main

recommendations were that the entire transportation system be placed under control of one individual and that the BEF should create a new railway system immediately.

While there had been a certain amount of animosity towards Geddes by virtue of the fact that he was a civilian possessing great influence, it was clear to Haig that this was exactly the type of individual needed in his organization. To overcome the animosity, Geddes was given the honorary rank of Major General and the full support of Haig and the British War Secretary Lloyd George.



Photo courtesy of the Imperial War Museum Q 9200

King George V traveling with General Plumer in 2nd Army's 'observation coach' converted from a D-class wagon. August 1918.

Geddes had heard that Canada had offered skilled construction units at a very early stage in the war when the wisdom of having such units in France had not been recognized. He knew that Canada had many skilled engineers and experienced railway contractors who had been engaged on the great new system of railways that stretched from the Atlantic to the Pacific.<sup>49</sup> As it was clear that Canada could offer railway troops and, as mentioned above, Geddes had already had communications with Stewart,

representation was made to Canada to raise more railway troops. This led to an interesting exchange between Haig and the War Office in London. On 7 February 1917, the War Office demanded that Haig confirm that he wanted railway troops from the Dominions and, if this was the case, he was to be aware that troops destined for replacement drafts would not be available nor would they be able to be replaced. Haig had to confirm that he wanted precedence given to railway troops over fighting troops. Haig's simple reply was "I have the honour to request that as regards Dominion forces, precedence should be given to Railway Troops over drafts for Fighting Units."<sup>50</sup>

This opened the floodgates of the raising and deploying of troops to France. Five units of Canadian Railway Troops were in France by the end of February 1917, with an additional seven more arriving between April 1917 and the last unit arriving on March 30<sup>th</sup> 1918.<sup>51</sup> Units were recruited by companies, across the country, which would then be mobilized at "some place near the point of embarkation for a week or two before embarking on Overseas Service."<sup>52</sup> There was also the campaign for getting members of influential families commands of railway units through the private funding of said units. "I again confirm my previous offer to provide all private money required to finance such a Battalion, provided my brother, Captain Walter McConnell...is given command... signed J.W. McConnell, President, St. Lawrence Sugar Refineries, Ltd."<sup>53</sup>

As the units began to arrive in France, the British and French began planning major offensives, known as the Nivelle offensives.<sup>54</sup> The first of these was the campaign on the Arras front, including the Canadian Corps attack on Vimy Ridge. The attack was three times larger than the attack on the Somme in regards to artillery ammunition usage, and could be successfully sustained due to the improvements instituted by Geddes.

The Canadian Railway troops were involved in the support of the Canadian Corps in its preparations for the attack on Vimy with the laying of rail lines to within a short distance of the front line. Once the attack was in full force, railway troops were sending supplies forward on standard gauge and narrow gauge line and evacuating the wounded back to the ambulance dressing stations. Within a week, trains were running to the top

of the ridge and, by the end of April, trains were running to British ration dumps on the level plains beyond the ridge.

Interestingly, even the members of the railway troops not involved in the actual support of the attack on Vimy recognized its importance.

...The Canadians still hold Vimy and the papers are full of their "glorious dash". It is certainly wonderful how untrained men are now highly expert in the war-game. Canada has earned a great place for herself in the annals of war.<sup>55</sup>

*The impact of the railways on the British armies was immediate. From initially looking upon them as of secondary importance, they quickly became a valuable tool for offensive actions:*

"The results of the Arras offensive accelerated the development of light railways in the 1<sup>st</sup> Army Area. The tonnage carried over the 1<sup>st</sup> Army Light Railways in March 1917 was only 500 tons per day and in September it reached 6000 tons per day. The Armies who had looked with suspicion on the advent of light railways were now insistent in their demand for more. The success was almost dramatic."<sup>56</sup>

While the offensive on Vimy was a success, the rest of the attacks under Nivelle came to a grinding halt and it became clear that the British would have to continue to press the Germans in order to relieve the pressure on the French armies, allowing them time to recuperate and reconstitute.<sup>57</sup> The next major British attack was on the Messines Ridge, which was a set-piece battle with limited objectives, using a massive artillery attack as well as the detonation of one million pounds of explosives under the Germans. The railway troops provided more than sufficient support to the point that the Director General Transportation, General Nash—Geddes' replacement<sup>58</sup>—was able to cut back the number of trains going to the front as there were more than enough supplies, thus saving wear and tear.<sup>59</sup>

It is important to note that the work performed by the Canadian Railway Troops was recognized by the armies that they were supporting. Several examples of letters of commendation referring to either the actions of the unit or specific members were received in abundance throughout 1917 and 1918.

I wish to bring to the notice of the Army Commander the excellent work done by the Officers, N.C.Os and men of the Light Railway Construction Troops under command of Lieutenant-Colonel Clarke, 2<sup>nd</sup> Bn., Canadian Railway Troops, during the operations of July 31<sup>st</sup> and subsequent days in maintaining the already constructed lines, and building new ones, through Ypres to Potijze St Jean and Wieltje under most difficult circumstances of weather, ground and shell fire.<sup>60</sup>



The final stage: ballasting and boxing-in newly-laid track.

From the 2<sup>nd</sup> Battalion Canadian Railway Troops War Diary the entry for 31<sup>st</sup> July 1917: "The afternoon work was directed by Lt.-Col Clarke personally. Enemy shelling was most severe during the late afternoon."<sup>61</sup>

In July, 1917, the 2<sup>nd</sup> Battalion Canadian Railway Troops opened a training camp in Watou, several miles east of Ypres to develop techniques to improve the laying of light railway lines. In most cases, the Canadian Railway Troops

Photo courtesy of the Imperial War Museum Q.36524

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provided the expertise for railway construction and the Corps provided either: infantry units, pioneer units, or labour battalions as the heavy lifters. At the Watou camp, the 1<sup>st</sup> Battalion of the King's Own Light Infantry provided the necessary manpower for training during the first tranche. The training consisted of grading, bridging and culvert construction, followed by the rail section and platelayers (to connect the rails) and finally the trains themselves, which carried the rails, sleepers, ballast and other supplies for construction. Upon completion of each day, the troops, officers and NCOs would discuss the day's activities and make suggestions for improvements in the methodology employed as well as innovations in tools to assist the work. During the time that 2<sup>nd</sup> Battalion Canadian Railway Troops were at the school, they were visited by the Director of Light Railways, General Harrison. They were also visited by infantry commanding officers and were overseen during their training by the Officer Commanding the 2<sup>nd</sup> Battalion..

I feel that the schooling has been a benefit to the 2<sup>nd</sup> CRT as well as to the Pioneer unit which they were training, as it enabled the men to experiment with different methods of track laying. It was found that by carrying the track over cars and off the end of the train and over the heads of the platelayers, that time was saved. In order to do this, long handled tongs had to be made and by using four sets to each rail section it was found that eight men could handle a section quite conveniently.<sup>62</sup>

The unit reported that it could lay up to two and a half miles of track per day, including four bridges, and sixteen culverts in a day of sixteen hours, and if it were in broken country it could lay approximately two miles per day.

While the attacks on Arras-Vimy and Messines had been successful, the attacks on Passchendaele and Cambrai were less so. At Cambrai, noted for its use of tanks on a major scale, the railways were used to bring the tanks forward to the battle area<sup>63</sup>, and then the tanks used the railway road bed to drive forward; the road bed offering the most solid track forward. The use of railways had, however, allowed the British to manage four major operations during the year, and the limited ground gained was not as a result of a lack of supplies. In most cases, the support provided by the railways was exemplary.

The massive requirements for supplies meant that the railways were required to build an intricate and large scale web of standard and light gauge railways. The majority of the rails and track supplies actually came from Canada. The Canadian Northern and Grand Trunk Pacific railways had been amalgamated and with this there was a large quantity of supplies, which were then shipped to France.<sup>64</sup>

By early 1918, it was clear to the British that Germany would be launching a major offensive, with the fall of Russia and the freeing up of troops from the Eastern Front. The role of the Canadian Railway Troops during the German offensive, *Michael* in March and *Georgette* in April was to show how flexible the units were rather than being limited in their utility. The 2<sup>nd</sup> Battalion, Canadian Railway Troops were working in the Fifth Army sector when the German assault began. The first inkling the troops had was the movement of heavy artillery towards positions to the rear of where the railway troops were working. A heavy bombardment had been going on since the early morning and was continued throughout the day. Lieutenant-Colonel Clarke ensured that as much railway material as possible was secured in the forward areas by sending a company to repair damaged track, allowing for rearward movement. He also had one of the companies *stand to*<sup>65</sup> to ensure the security of the unit's sector. As the offensive continued, with the general withdrawal of the Fifth Army, the 2<sup>nd</sup> Battalion, Canadian Railway Troops was eventually moved to Villers Bretonneux to assist in the Amiens defence, commanded by General Carey.



Photo courtesy of the Imperial War Museum CO 1861

A Dick Kerr PE and its ammunition train in the ruined village of Lievin-Angres.

By the 27<sup>th</sup> March, 1918, the unit was being kitted out with extra ammunition, machine guns and other stores to take their place in the line to defend against further German incursions. During the actions from the 27<sup>th</sup> to the 31<sup>st</sup> March, the unit came under artillery fire numerous times, sent out patrols every night to harass the Germans, and withdrew from their positions several times as the units on their left and right fell back, suffering twenty-nine casualties and two deaths. The unit also

worked on salvaging much of the railway supplies in the sector by tying the wood sleepers into booms (like log booms on the rivers of Canada to transport logs down river) and placing other supplies on them, essentially using them as rafts, which they sent down the canals to more secure areas in the rear.<sup>66</sup>

The remainder of the Canadian Railway Troops were placed under direct control of Brigadier-General Stewart and withdrawn to an area to the rear of Fifth Army. Here with over 30,000 troops and civilian labourers under command, he built a layered defensive line, some thirty miles wide, consisting of more than 120 miles of trenches. The positions were never tested, as the German attack had ground to a halt.<sup>67</sup>

German offensive power was indeed vanishing; on 4 April a fresh attempt was made to capture the one strategic prize which had come into view—Amiens, with its rail junctions, only some 10 miles behind the front line. The attack was an absolute failure, and the following day the 'March Offensive' was formally stopped.<sup>68</sup>

The German attacks did damage the light railways, and when the British counter-attacked in August 1918, the Canadian Railway troops were directed to only repair standard-gauge railway lines. As the German armies retreated, they booby-trapped many of the lines and destroyed much of the railway infrastructure. It was up to the railway troops to repair and, as necessary, rebuild the lines.

The work of the Canadian Railway Troops was dangerous on several levels. The use of heavy equipment, laying railway track as well as working around heavy equipment was dangerous, additionally, as the railways were pushed close to the front, the threat of shelling was constant. Men were killed due to accidents, enemy shelling, aerial bombing as well as machine guns and rifle fire. The number injured from these incidents was even greater. While the troops in the front lines had the protection of their trenches during artillery shelling, the railway troops were out in the open, sometimes working above those trenches while the troops below went about their business, either moving supplies forward or repairing lines that had been damaged from shelling. The repairing of lines was a constant activity and the threat from shelling, either observed or random, was a daily occurrence. Entries in the war diaries of the Canadian Railway Troops report the injuries and deaths on a regular basis.

One of the injuries suffered by the troops was shell shock. A common injury amongst all of the troops on the front, the railway troops were more vulnerable for several reasons. They suffered from random shelling, and did not have any safe place to go and hide as they were out in the open. Many men who had already been diagnosed with shell shock while in infantry units were placed in railway units as it was



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thought that it was less dangerous. Unfortunately, they tended to suffer an immediate recurrence when they came under fire. Many of the men enrolled in the railway troops were older and were not in as good physical condition as the troops in the front line units. Yet the work they were expected to carry out in the harsh conditions also took its toll.<sup>69</sup>

When the war ended, the Canadian Railway Troops, like the other Canadian units in France, were demobilized and returned to Canada. However, unlike many units that had roots in the Militia, the Canadian Railway Troops did not perpetuate the numbered battalions after the war. It is because of this that their efforts and their voices were not well known in the annals of Canadian military history. The focus of their efforts was to ensure that the British armies in France were supplied with all of the ammunition and supplies necessary to ensure that the set-piece attacks that began to define the Allied tactics could be executed successfully. However, it must be pointed out that not only did the work of the railway troops permit the Allies to execute these attacks, it also allowed them to plan and execute these attacks either in sequence or simultaneously, keeping the Germans off-balance and bringing the war to an end sooner than it otherwise would have.



Photo courtesy of the Imperial War Museum CO 3795

Another view of the general devastation surrounding the light railway through Lievin. July 1917.

By 1917, the issue of supplies was not problematic in any of the battles that defined that year. By the spring of 1918, the railway troops were sufficiently experienced that they could be employed in the front lines, in an emergency, with confidence. When the war began in 1914, only a few forward-thinking souls could see that there would be a requirement for railways to support the allied operations. It took the devastation of the Somme and a greater appreciation of new battlefield tactics to begin to engage the experience of the greater community. Having Sir Eric Geddes come and examine the sustainment system of the British armies and provide suggestions was a successful decision; having him stay on to develop and run the system was nothing short of brilliant. His knowledge of the railway system in Britain and his contacts in Canada made for the logical conclusion to have Canada provide the resources and knowledge to make his plans successful. Canadian experiences in railway building through the West easily translated to the devastation of the Western Front. Temporary lines and bridges were a standard way of doing business, and thus were easily adaptable in any situation. Canadian Railway Troops were thus the “Sinews of Steel” of the British armies in France.

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## About the Author ...

Major George A. Jager is presently serving in the Army Directorate of Conceive and Design. He has served in NDHQ as the Chief of Force Development and has served in 1 Service Battalion, 4 CFMCU, QGSQFT and LFWA HQ as well as ice storms, floods and fires. He served in Sierra Leone on Roto 0 during Op Sculpture as the OC Transport Squadron, Republic of Sierra Leone Armed Forces and received a CDS commendation for his work. He holds a BA in History from the University of Toronto and a Masters in War Studies from the Royal Military College Kingston.

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## Endnotes

1. This meant that they responded to both the senior Canadian in the General Headquarters, Brigadier-General James W. Stewart, Director Light Railways as well as the Director General Railways. There were thus occasions that Stewart was in the difficult position of having to deal with two commands and two masters, which is a difficult situation at the best of times. To Stewart's credit, there is no evidence of any ill will or controversial decisions that he took when dealing with both interests.
2. John Terraine, *White Heat: The New Warfare 1914-18*, (London: Sidgwick & Jackson, 1982), p. 21.
3. Fred Angus, "The Canadian Railway Troops in World War I," *Canadian Rail, Journal of the Canadian Railroad Historical Association*, (November-December 1993), 191.
4. Kenneth Macksey, *For Want of a Nail: The Impact on War of Logistics and Communication*, (London: Brassey's, 1989), p. 19.
5. Macksey, pp. 22-23.
6. Martin Van Creveld, *Supplying War, Logistics from Wallenstein to Patton*, (Cambridge: Cambridge University Press, 2004), p. 84.
7. Macksey, p. 25.
8. *Ibid.* 28.
9. Van Creveld, p. 233.
10. John Ellis, *Eye Deep in Hell*, (London: Croom Helm, 1977), p. 125.
11. *Ibid.* p. 132.
12. Ian Malcolm Brown, *British Logistics on the Western Front: 1914-1918*, (Westport: Praeger Publishers, 1998), p. 82.
13. Van Creveld, p.113.
14. Van Creveld, p.111.
15. W.J.K. Davies, *Light Railways of the First World War*, (Newton: Latimer Trend and Company, 1966), p.23.
16. Field Marshal Sir Douglas Haig was raised to the position of Commander of British Armies in France, replacing Sir John French in December 1915. There are numerous works on Haig, many critical of his command and his leadership, especially for the Battle of the Somme and Passchendaele. It is not the aim of this paper to comment on Haig's abilities or failures; however, there are a number of books that provide insights into his personality. Tim Traver's *The Killing Ground: The British Army, The Western Front and the Emergence of Modern Warfare 1900-1918*, (London: Allan & Unwin, 1987) is recommended reading.
17. Unlike a bombardment that is a massing of artillery fire on a general area, a barrage is used against identified targets, and usually limited in scope and time. A barrage can be a creeping barrage, whereby it moves ahead of advancing troops, on a timed basis, or it can be a box barrage, which fires on an identified target and lifts at a certain time, in order for the assaulting troops to attack the position, before the enemy has time to return to its firing positions. A barrage would also be used to break up a counter-attack, firing on concentration of troops.
18. Brown, *British Logistics on the Western Front: 1914-1918*, p. 88.
19. Ian A. Mackenzie Papers, "History of the Canadian Railway Troops Typescript", p 3, MG 27, III, B5, Vol. 1, File 5. ("Henceforth Mackenzie Papers Typescript")
20. Wikipedia, *Battle of Neuve Chapelle*, [http://en.wikipedia.org/wiki/Neuve\\_Chapelle](http://en.wikipedia.org/wiki/Neuve_Chapelle). (5 April, 2007).
21. Angus, "The Canadian Railway Troops in World War I", p. 191.
22. Brown, *British Logistics on the Western Front: 1914-1918*, p. 56.
23. Angus, "Canadian Railway Troops in World War I," p. 192.
24. Memorandum submitted by Mr. A. MacDougall, Oct. 9 1914, Historical Section, Department of National Defence, HQ. 600-10-18. Vol.1.f. 24.
25. Letter to Sir Robert Borden, Oct. 9 1914, Historical Section, Department of National Defence, HQ.600-18. Vol.1 folio 38.
26. The Army Council was the British Army's brain trust, which made overall strategic decisions for the War.
27. Telegram, Governor-General of Canada—Secretary of State for the Colonies, October 10, 1914 and October 22, 1914, Historical Section, Department of National Defence, Canadian Railway Troops files, E.W.P. No. 4, No. 868, No. 907, No. 943.
28. Telegram from Secretary of State for the Colonies to the Governor General, 21<sup>st</sup> January, 1915, Historical Section, Department of National Defence, Canadian Railway Troops Files.
29. Report of the Committee of the Privy Council, 22<sup>nd</sup> February, 1915. Historical Section, Department of National Defence, HQ. 600-10-18, Vol.1.fo.192.
30. A description of railway terminology can be found in the appendix.
31. "Principle Work of the CORCC," *Canadian Railway and Marine World*, December 1915, p. 462.
32. Angus, "The Canadian Railway Troops in World War I", pp. 193-194.
33. Unsigned manuscript "Canadian Overseas Railway Construction Corps, Canadian Railway Troops Files, Historical Section, Department of National Defence. No page number.
34. While today the term Officer Commanding is used in reference to Company Commanders, usually of the rank of major, in the First World War the term was the equivalent of today's Commanding Officer, usually of the rank of Lieutenant Colonel.
35. Davies, *Light Railways of the First World War*, p. 169.
36. Letter from Lieutenant Colonel Ramsey to Colonel Wanklyn, 23 January 1916, Department of National Defence HQ.

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- 600-10-18. Vol.4. f.150. p. 63. The complete extract of the letter is reproduced in the Annex to this paper.
37. Report of the Committee of the Privy Council, 10 March, 1916, Historical Section, Department of National Defence, HQ. 600-10-18, vol. 4. folio 132.
38. John Conrad, "Canadian Corps Logistics During the Last Hundred Days, August-November 1918," *The Canadian Army Journal*, Vol. 8.2, (Summer 2005), p. 87.
39. Macksey, *For Want of a Nail: The Impact on War of Logistics and Communications*, p. 74.
40. Mackenzie Papers Typescript," p. 3.
41. *Ibid.*, p.3.
42. *Ibid.*, p.4
43. *Ibid.*, p.4
44. *Ibid.*, p.7
45. Brown, *British Logistics of the Western Front: 1914-1918*, pp.121-122.
46. *Ibid.*, p. 134.
47. "Mackenzie Papers Typescript," p. 8.
48. Brown, p. 140.
49. "Mackenzie Paper Typescript," p. 8.
50. Letters from War Office to Haig and reply, 7<sup>th</sup> February and 13<sup>th</sup> February, Historical Section, Department of National Defence, O/S. R. 26-5 Vol. 3.
51. For a list of units and dates of arrival see Annex XX
52. Letter 6<sup>th</sup> January, 1917 from Adjutant-General, Canadian Militia to All concerned, Historical Section, Department of National Defence, HQ. 600-10-44. f.11.
53. Telegram, 18<sup>th</sup> December, 1916 to Cecil G. Williams, Chief Recruiting Officer for Canada, from J.W. McConnell, Historical Section, Department of National Defence, HQ. 600-10-42, f. 3.
54. Nivelle had fought in the Battle of Verdun and was given command of the French Forces in December 1916. He envisaged a massive attack on German lines, using the British forces in the Arras sector to draw away German reserves. While conceptually a good idea, he was unable to execute it and by May 1917 it had petered out, with several French units mutinying.
55. Entry 11 April 1917, Personal diary, Ian Mackenzie. Ian Mackenzie papers MG 27 III B 5 Vol. 1, file 5.
56. "Mackenzie papers Typescript," p. 74.
57. Davies, *Light Railways of the First World War*, p. 65.
58. Geddes work was such that he was called back to England to the Admiralty to assist it in sorting out issues for the Royal Navy. Haig was so impressed with Geddes that he was able to keep him as an official advisor of railways for the remainder of the war.
59. Brown, *British Logistics on the Western Front 1914-1919*, p. 163,
60. Letter, 1917, H. Watts Lt. General, Commanding XIX Corps, Fifth Army, Ian Mackenzie papers MG 27 III B 5 Vol. 1. file 1.
61. War Diary, 2<sup>nd</sup> Battalion, Canadian Railway Troops, Library and Archives Canada, ArchiviaNet on-line research tool, War Diaries of the First World War. 31 July, 1917.
62. Annex C to 2<sup>nd</sup> Battalion Canadian Railway Troops War Diary, July 1917, Library and Archives Canada, ArchiviaNet on-line research tool, War Diaries of the First World War.
63. The tanks were limited in the distances they could travel on their tracks before they needed an overhaul. The use of railways to transport the tanks as far forward without putting any stress on the tracks ensured that the tanks would at least not suffer from track breakdowns.
64. Angus, "Canadian Railway Troops in World War I," p. 198.
65. Stand to is the military term for putting a unit on full alert, where every man is awake and in a position to repulse an attack.
66. 2<sup>nd</sup> Battalion Canadian Railway Troops War Diary, 21-31 March, 1918, Library and Archives Canada, ArchiviaNet on-line research tool, War Diaries of the First World War. A map of the positions held by the 2<sup>nd</sup> Battalion is found in the Annex A.
67. Geoffrey Wilson Taylor, *The Railway Contractors*, (Victoria: Morris Publishers, 1988), pp.116-117.
68. Terraine, *White Heat, The New Warfare 1914-18*, p. 288.
69. Medical Report, Senior Medical Officer, Canadian Railway Troops, Dec. 1. 1917. Historical Section, Department of National Defence, OS.R.104-33.
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## NOTE TO FILE—CONSTRUCTIVE SIMULATION VERSUS SERIOUS GAMES FOR THE ARMY: A CANADIAN CASE STUDY

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Dr. Paul A. Roman and Mr. Doug Brown

As military forces around the world embrace modelling and simulation as a fundamental enabling technology necessary to help meet training requirements, the impressive characteristics of video game technology and the advent of serious games are increasingly becoming an important part of the training tool kit. The Canadian Army's Directorate of Land Synthetic Environments (DLSE) is charged, in part, with the conduct of command and staff training that is typically supported with a constructive simulation. In addition to simulating the battle, the simulation also stimulates the go-to-war command and control (C2) systems, such that the headquarters staff (as the primary training audience) can be immersed in the tactical scenario by performing their usual battle procedure in a mock-up command post. After 11 years of conducting exercises in this manner, DLSE supported its first serious game based exercise in October of 2006. Exercise WINGED WARRIOR is the culminating activity at the end of the Advanced Tactical Aviation Course, intended to train pilots to perform as aviation mission commanders and air liaison officers. This paper takes a critical look at the similarities and differences between exercises primarily supported by constructive simulation versus those supported by a serious game. It also introduces the concept of a training needs framework, upon which decisions regarding the most appropriate type of tool to support a training objective, can be planned.

### Introduction

Few would argue that the pedagogical advantages and impressive levels of resolution offered by the latest in video game technology make it clear that serious games have a role to play in military training. Even if one chose to argue, it would be an uphill struggle as the application of this technology is occurring bottom up as trainers close to the front lines have started adopting and adapting these tools to meet real and urgent training requirements.

In the Canadian Forces, several training establishments are using their own budgets to acquire these surprisingly affordable software programs. There is no shortage of choice either as the video game industry comes to appreciate, what from their perspective might be perceived as a niche market, an opportunity to differentiate their products to meet the special needs of a military training market. Free trial licences and a willingness to accept feedback and make improvements are good business practices for these companies as they incorporate the needs of military users into products, which as a result of the increased realism, appeal to a much broader audience. One need look no further than the recently conducted Serious Games Summit held in October 2006 to realize that the serious games are definitely growing in popularity and that training policy makers and planners had best start to figure out where they fit in as part of an overall training strategy. As is the case with the adoption of any new technology, however, there is likely to be some resistance to the change. Those comfortable with applying constructive simulation tools based upon time tested training doctrine need to adapt to the changes implied with the adoption of game technology.

In a provocative presentation at the Defence Simulation and Training Conference,<sup>1</sup> Helsdingen suggested that analogous to the way that Dr. John Gray<sup>2</sup> characterized the different personalities of men and women, one might consider that "Gamers are from Mars and Trainers are from Venus." To reinforce this analogy, Helsdingen provided the list at Table 1 of demands that contrast the gamer's preferences (Mars) to those of the trainer (Venus):

Gamer Preferences	Trainer Preferences
Entertainment	Learning Process
Emotion	Structure
Player Control	Learning Goals
Free Play	Instructor Control
Unpredictable Turn of Events	Standardization
Fantasy	Realistic Problems
No Boundaries	Effective and Efficient
Social Interaction	Transfer of Training
Surprise	Validity
Risk	Fidelity
Suspense	
Art and Beauty	

**Table 1: Comparison of Gamer and Trainer Preferences**

A review of these preferences reveals stark differences suggesting that for the games to be applicable in a military training environment either the games themselves (designed for gamers) or the trainers will have to adapt. This was the challenge faced by DLSE when military trainers with 11 years of experience applying constructive simulation tools to support command and staff training were faced with a different training event that would be better served by a visual gaming environment. The event marked a significant milestone for DLSE, which in addition to its training role, is also charged with the development of pan-Army simulation policy. WINGED WARRIOR offered the opportunity to critically evaluate the application of game technology as a means to assist in the development of an appropriate policy on their effective use. This paper will emphasize the differences and similarities between exercises supported primarily by constructive simulation and this one exercise supported by a commercial off-the-shelf game. The training needs framework will also be presented as a means to help training planners map which tools are best suited to which requirements.

### The Training Needs Framework

One challenge that improvements in simulation technology have created is the introduction of a new lexicon to describe the tools. As natural as the distinctions between live, virtual and constructive simulation may seem to those who are familiar with them, games, and serious games in particular, have begun to blur the lines between them. Combining these three types of military simulation into synthetic environments built to support a particular training event has also made the distinctions between them even less important.

Those responsible for training policy and planning are far less interested in the tools than they are with the outcomes achieved through their use. The tools are a means to an end and not an end unto themselves. The training needs framework (TNF) was created as a way to map how any tool or set of tools can be applied to produce a



particular outcome as part of an overall training plan intended to certify troops for a specific deployment. In the Canadian Army, this training progression has come to be described as the “road to high readiness.” The culminating activity for a battle group (BG) identified for an operational tour is a confirmation event conducted as a live training exercise at the Canadian Manoeuvre Training Centre (CMTC). Achieving confirmation, however, depends on the effectiveness of the up to two years of preparation that occurs prior to the event. While on the road to high readiness, units will go through a training progression that sees them perfecting their individual skills, working in detachments, small teams, combined arms teams, and eventually as a full BG in the context of a brigade level operation. Canadian training doctrine describes seven levels of training, from individual (Level 1) to a brigade headquarters collective (Level 7) that correspond to this progression. The TNF presented in Figure 1 portrays the seven levels and theatre mission specific training (TMST) on the left hand side of the matrix and the corresponding training outcomes on the right hand side. Across the top of the TNF, the normal progression from skills-based training through discreet vignettes (convoy operation for example) and finally continuous scenarios (a series of vignettes where the trainee must recognize which vignette he is in) portray the increasing levels of context upon which the road to high readiness depends.

Level	Skill	Discrete Vignettes	Continuous Scenario	Outcome
Collective TMST				Combat Certified
Collective (5-7)		Physical Emphasis		Combat Trained
Collective (3-5)				Combat Capable
Individual (1-3)				Combat Competence
Leadership				Command Centric
		Cognitive Emphasis		

Figure 1: The Training Needs Framework

The term “combat” in the “Outcome” column of the framework is intended to include a broad definition as appropriate to the mission for which the BG is preparing, and could include humanitarian, peacekeeping, or any other peace support roles as appropriate in the contemporary operating environment. The current Canadian Forces emphasis on being a command centric force, and the resultant reliance on leadership, is also included somewhat separately from the levels; however, its inclusion is fundamental since the outcome will not be achieved unless there is an appropriate degree of emphasis on leadership and decision-making throughout the preparation phases towards certification. It was the lack of a tool that could provide a certification level event within a continuous scenario for a complex tactical aviation mission that lead to the selection of “Steal Beasts” for the conduct of Exercise WINGED WARRIOR.

### Exercise WINGED WARRIOR

The training arm of DLSE charged with the planning and conduct of exercises consists of a group of retired military officers with an average of 28 years of military

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service followed by up to nine years of military exercise development planning and execution. Prior to this exercise, the emphasis had been on command and staff training conducted through the use of constructive simulations used to stimulate the live C2 systems of the headquarters being exercised. The scope of these exercises had ranged from pre-deployment theatre specific BG and multinational brigade exercises to division level exercises in support of the Canadian Land Force Command and Staff College (CLFCSC). Up until the conduct of WINGED WARRIOR, traditional constructive simulations, Janus, Joint Conflict and Tactical Simulation (JCATS), the ABACUS Command and Staff Trainer, or role players without computer simulation, supported all of these exercises.

By contrast, Exercise WINGED WARRIOR was traditionally a live exercise to test tactical aviation helicopter pilots in their role as aviation mission commanders during the planning and execution of complex missions. Typical missions include:

- ◆ Reconnaissance and surveillance;
- ◆ Direction and control of fire;
- ◆ Provision of fire support;
- ◆ Combat airlift/tactical transport;
- ◆ Logistical transport; and
- ◆ Communications support.

To achieve this level of training in a live fire event would require the deployment of at least eight utility helicopters and the associated pilots, flight engineers, maintainers, logisticians, and operations and command staff. As the primary role of the Canadian Air Force's tactical helicopters is to support the Land Force, the exercise also required the participation of Army units with hundreds of ground troops with artillery supported by attack helicopters and jet aircraft. Typically, this was achieved by conducting Exercise WINGED WARRIOR concurrently with an Army exercise. In addition to testing the students, it created a venue to train tactical aviation unit personnel collectively with land force units.

Given the size and complexity of the missions required to achieve the aim of the course, and the very high operational tempo of the Canadian Army, it has become very difficult to bring together all the participants needed to provide a realistic training environment. Moreover, there is no flexibility to add the additional training objectives required by the aviation course. As a result, simulation is now viewed as the only feasible alternative.

In addition to being the only feasible alternative, simulation provides several additional benefits to the exercise: friendly land forces can be much larger; they can face a realistic and credible enemy force; supporting forces, like fighter jets, attack helicopters, airborne C2 aircraft, and unmanned aerial vehicles (UAV), can all be included. All in all, it gives a much richer tactical environment to support more complex missions, and frees the trainers from having to conduct all of the administrative tasks associated with coordinating a live exercise.

At the heart of the exercise is the requirement for aviation mission commanders to take part in the planning and execution of the mission. Execution occurs while airborne, so the mission commander must make decisions during the mission based on the tactical situation as assessed through both radio information and the visual environment. The limited capabilities of the current fleet of constructive simulations were assessed as

inadequate to provide the necessary rich visual environment. The aviation training school had already purchased an adequate number of “Steel Beasts” licences and so it was selected as the most cost-effective means to meet the requirements of the exercise. Approximately 30 stations were required for the pilots, the directing staff, and the exercise controller.

## Planning and Execution

Preparations for WINGED WARRIOR began only three months before with a series of meetings that established the exercise aim, scope and training objectives. Approximately one month prior to the exercise, work commenced on preparing the simulation for use and developing the terrain models.

The layout for WINGED WARRIOR included 98 computers in total: 28 loaded with “Steel Beasts”; 44 with Sim Radio (a home-grown simulated radio application using Voice Over Internet Protocol [VOIP]); and the remainder as workstations loaded with various applications including Falconview and Microsoft Office. As depicted at Figure 2, the large training area within DLSE was set up using dividers to create a flight line, briefing and planning areas, headquarters areas, and an exercise control area. The functions of exercise control were to control the simulation, provide inputs from supporting troops, synchronize all activity, and provide situational awareness to instructors and assessors.

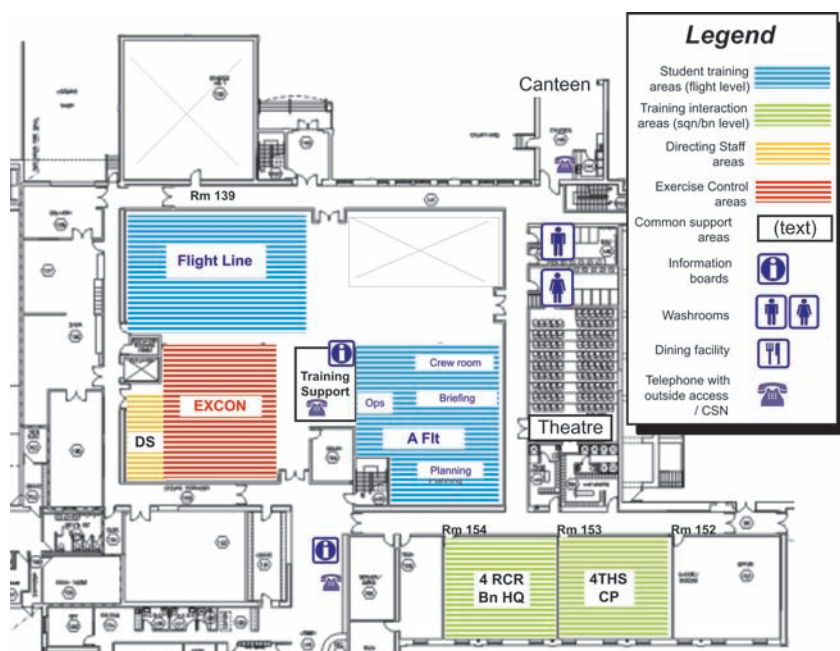


Figure 2: Winged Warrior Layout

The majority of the “Steel Beasts” machines were deployed in the flight line area. Two “Steel Beasts” machines were used per simulated helicopter cockpit, one for the flying pilot, and the other for the non-flying pilot. In each simulated helicopter cockpit there were also two Sim Radio machines to emulate the communications networks. In total, there were six CH-146 Griffon, two Chinook and two AH-64 Apache cockpits simulated, plus a station used as a ground vehicle for a liaison officer and as an UAV. The remainder of the “Steel Beasts” machines were located in Exercise Control, one of which was designated as the server. The enemy used two machines, while the others

controlled the remainder of the blue and neutral forces. The other non-“Steel Beasts” computers were used in the staff planning process and during exercise execution to aid in ensuring that all radio nets were manned with exercise players in simulated command posts. Each of the “Steel Beasts” machines had Pentium 4 processors (3.0 GHz), one GB of RAM and 256 MB NVidia graphics card. This hardware configuration turned out to be very suitable for the demands of the exercise.



**Figure 3: Exercise Control**

As is the case for any constructive simulation training event, the “Steel Beasts” terrain model was constructed from source Digital Terrain Elevation Data (DTED) of the area, as well as from VMAP feature data. “Steel Beasts” has the ability to directly ingest this data and create its own corresponding terrain representation. A lot of detail was added to portions of the terrain to support the various aviation missions that were to be flown. For example, a city was constructed that acted as the main base for the helicopter operations throughout the exercise, and several other towns and villages were also constructed if they had an impact on the exercise play.

As a result of the current limitation of an 80x80 km terrain model for “Steel Beasts,” two separate terrain models had to be created to accommodate the exercise. So-called “south” and “north” maps were created with considerable overlap. Coordinating the same visual look and feel of both maps over the same terrain area became quite difficult and will be avoided in future exercises. Beyond this limitation, there were only two significant technical challenges to be resolved before the exercise could run. Client machines were dropping out (crashing) of the exercise and the graphics performance was unacceptably slow.

The maker of “Steel Beasts,” ESIm games, was very responsive at helping to resolve these issues. Over a period of 48 hours they provided three successive new builds of the simulation, each of which progressively addressed the issues described above. Implementation of the final build on a dedicated network with several network services (including a firewall) disabled, resulted in “Steel Beasts” performing flawlessly throughout the exercise period. This was despite running, from a “Steel Beasts” perspective, a very large exercise with a very large terrain model.

Graphics performance is something that DLSE is not accustomed to worrying about. For the most part, constructive simulations do not tax the graphics capability of modern PCs. Of course, it became very clear very quickly that the only thing that mattered in the simulation for this particular exercise was the graphics. A lot of tweaking was done to get a good compromise between scene realism, graphics performance (frame rates), and terrain size. “Steel Beasts” had acceptable performance when the terrain model was

restricted to 60x80 km, which was large enough to run individual helicopter missions. The display was set to be 1024x768 pixels in size. This was also arrived at after a significant process of trial and error.

Considering terrain models and graphics performance requirements, tactical aviation is arguably the most difficult (military) case for a serious game. In addition to being relatively fast movers capable of covering large geographical areas, helicopters fly at low altitudes demanding a high degree of visual detail. Aircraft flying fast and high can get by with a low-resolution picture draped over a digital terrain elevation data (DTED) "skin." Knowing this, the exercise writers constrained the operations areas considerably.



Figure 4: "Steel Beasts" Screen Capture

Two aviation missions were run each exercise day, one from 10:00 to 12:00 hours and the second from 17:30 to 19:30 hours. This provided time before each mission for the control staff to attend the rehearsals, and prepare and rehearse their own activities for the next mission. Preparation for each mission included modifying the "Steel Beasts" scenario with the appropriate forces to properly represent the activities that each mission entailed, as well as enemy and neutral forces as appropriate. Again, if the activity did not have a visual impact observable from the helicopters then it did not need to be represented in the simulation.

## Training Assessment

As the first serious game application for a significant training event conducted by DLSE, Exercise WINGED WARRIOR is considered a milestone for the Canadian Army in terms of the application of this technology to real training events. Many lessons were learned as technical staff, exercise developers, controllers and directors brought the skills they have employed during constructive simulation exercises to bear on Exercise WINGED WARRIOR. This section assesses the effectiveness of "Steel Beasts" (designed for gamers) against the training preferences described in Table 1. In this regard, trainer preferences from Table 1 are presented in **bold text**, and gamer preferences are presented in ***bold italics***.

The **Learning Process** and **learning goals** as applied to this exercise were identical to the processes that would have been employed had the exercise been supported through constructive simulation. There were, however, a few enhancements as a result of the ***entertainment*** value provided by the visual effects of the game. **Trainees (players)** found the out of the window view provided by the simulation to be



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realistic, interesting and captivating. The degree of immersion achieved was impressive as pilots (controlling flight with a keyboard) were observed leaning into their turns. The simulated enemy force allowed for the creation of **realistic problems** that affected the trainees on an **emotional** level that also lead to a perception of **free play** that included a degree of suspense and corresponding risks that gamers have come to appreciate and demand. In reality, the exercise controllers were, for the most part, in **complete control**. Maintaining a high degree of control might even be more important when using a game, because of the importance of keeping inputs realistic and to ensure training aims are being served.

Unlike constructive simulation exercises, the training audience interacts directly with the simulation as opposed to a command support system being stimulated by the simulation. As a result, there is less opportunity to make corrections or cover-up any flaws that might occur in the simulation during runtime. The visual effect generated is immediately available to the trainees and must be credible enough to maintain the **validity** of the exercise from the trainees' perspective. Creating a perception of **fantasy** with **no boundaries** must be avoided as it will likely detract from the **effectiveness** of the training should the players come to doubt the degree of **realism**, and this could put the achievement of the training objectives at risk.

Ensuring a **standardized** and consistent visual representation during runtime became the single most important task for exercise controllers. This required a high degree of coordination between all parts of the exercise control staff, technical controllers, enemy, fire support, other friendly players, etc. Moreover, it required a far higher degree of coordination than would be required for the average exercise control cell using a constructive simulation. Exercise staff rehearsals before mission execution and before critical events were essential to ensuring that the correct visual effect was generated at the right time. Inadvertent pilot reactions due to a number of visual bloopers that occurred early in the exercise were subsequently avoided as the result of the high degree of coordination. On the **efficiency** side, however, controllers quickly learned that if an activity did not contribute to the visual scene presented to the pilots, then it did not have to be simulated. After several false starts, recognition of this fact saved a considerable amount of effort. On the other hand, this also implied that a great deal of knowledge was needed in the application of the simulation. Very often, what has to be visually generated is not explicitly represented by the simulation, and work "arounds" had to be found to create the correct visual result.

"Steel Beasts," while having a good visual representation of a helicopter, does not claim to represent flight dynamics well. Indeed, during the exercise "collisions" were turned off, so that helicopters could not crash into buildings, trees, mountains or each other. The pilots even used the keyboard and mouse to fly the helicopter, rather than a joystick. This low **fidelity** implementation was assessed as **valid** to meet the training aims of the exercise. The objective was not to teach a pilot how to fly a helicopter, rather the exercise was all about training a pilot to think about a tactical situation while a mission was unfolding. A more realistic cockpit simulation was certainly possible, however, had the pilots been presented with joysticks, they might have been more interested in the flight characteristics of the simulation rather than the tactical mission upon which they were required to focus. In this case, a lower fidelity flight model was deemed appropriate given the cognitive training objectives of the exercise.

In reviewing the training assessment details above, it is apparent that the trainers have incorporated many of the advantages of the game (8 out of the 12 gamer preferences), while at the same time being cautious not to include those that might detract from or add little value to the training. All of the trainer preferences, with the exception of **transfer of training**, are also addressed in the assessment above. This does not mean that the skills learned will not transfer to actual missions, merely that

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based upon the exercise alone, this is difficult to assess. As the alternative was not to conduct any exercise at all, any training transfers from this exercise would be better than no training transfer, assuming no negative training occurred. Furthermore, this issue was examined in some detail through one of the other training preferences not listed by Helsdingen in Table 1: the after action review (AAR).

## **After Action Review**

In addition to the standard debriefing emphasis of the AAR, students and staff were asked to assess the effectiveness of the exercise. Despite admitted negative biases going into the exercise, students, staff and supporting aircrew all gave enthusiastic reviews on completion of the exercise. They claimed that the representation of the challenges in planning and executing tactical aviation missions was superior to the live versions of the exercise that participants had experienced in recent years. From the perspective of acceptance, the virtual version of WINGED WARRIOR was rated as highly effective in meeting the exercise aims as evidenced by the decision to conduct the exercise in the same manner in the future.

There is, of course, room for improvement and two primary areas are being addressed for future iterations of the exercise. Despite the rich tactical environment provided by “Steel Beasts” including an active enemy with effective shoot-down capabilities, terrain more appropriate to operational deployments, etc., the simulation lacked several of the key decision support elements available in actual cockpits. These include electronic navigation information, communication systems, threat warning systems and countermeasures, door guns, a rear crewman station and the aircraft sensor package. None of these potential information inputs were included in the simulation. Furthermore, the simulation had a limited spectrum of visualization models for vehicles, human entities and cultural aspects of the environment. Airborne weapon systems and the range of ground-based weapon systems are limited and not always realistic in their effects. Improvement in both of these areas is planned for future iterations of the exercise.

## **Summary and Conclusion**

Although not the first application of a serious game used for military training by the Canadian Army, WINGED WARRIOR was the first time the professional training staff at DLSE employed a commercial off-the-shelf game for the conduct of a training event with a significant command and staff component. The lack of an appropriate simulation tool to meet the Level 3-5 continuous scenario requirements was highlighted in the Training Needs Framework at Figure 2. The trainers proved adept at adapting the advantages afforded by the gamer preferences while ensuring the overall process was tailored to the aim, scope and training objectives of the exercise. Several opportunities for improvement have been identified, but everyone concerned appeared to agree that serious games are a welcome addition to the simulation supported training toolbox. The exercise also clearly demonstrated that exercise staff experienced with constructive simulation could easily adapt their skills to effectively meet training objectives that may be better served with gaming technology.

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## **Endnotes**

1. Anne Helsdingen, *Games for Training, VV&A Methods*, Defense Simulation and Training Conference, Thistle Selfridges Hotel, London, November 2006.
2. John Gray, *Men are from Mars, Women are from Venus* (New York: HarperCollins Publishers, May 1992).

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# — BOOK REVIEWS —

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## Correction:

The book review “Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife” published in The Canadian Army Journal volume 10.2 (page 116) was incorrectly credited to Mr. Nils N. French. It should have been credited to Captain Nils N. French.

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## EVIDENCE IN CAMERA: THE STORY OF PHOTOGRAPHIC INTELLIGENCE IN THE SECOND WORLD WAR

BABINGTON SMITH, Constance. 1957. London, Sutton Publishing Ltd, 2004.  
230 pages. \$15.46 CAN

**Reviewed by Colonel Robert S. Williams, MSM, CD**

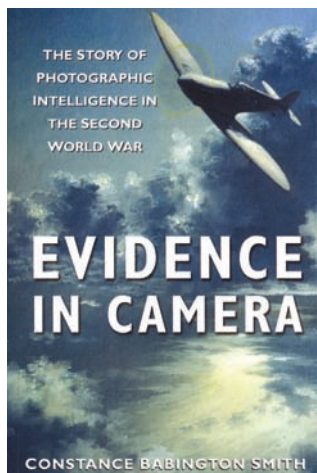
A friend who served in the Canadian Army as a Photo-Interpreter (PI) during the Second World War first mentioned this book to me. One of his fellow PIs was an officer in the WAAF (Women's Auxiliary Air Force), Sarah Churchill, daughter of the wartime Prime Minister of the UK. My friend recommended it as the best reference book available covering the little known aspect of Allied photographic intelligence in the Second World War. A chance reprint allowed me the opportunity to review the antecedents of what has become known today as imagery analysis.

This book is written in a very readable style, making it difficult for a reader to put it down. The origins of photo interpretation in Second World War are described through the various trials and tests conducted by Mr. Cotton to prove the worth of this “new” discipline I was spellbound by the stories. The sale of this intelligence “service”

successively to the Air Force (RAF), the Navy (RN), and eventually the British Army is a tale of bold salesmanship by zealots who believed in their cause. This passion for the value of photographic analysis is shared by the author, herself a PI, and comes through clearly in this narrative. The author is eminently qualified to tell the story of photo interpretation. An officer in the WAAF, she was mentioned in dispatches (MID), was awarded the Member of the Order of the British Empire (MBE) at war's end, and received the American Legion of Honour, the first awarded to a British woman.

The story of the development and exploitation of this nascent intelligence discipline is one that is typical British ad hoc and make do. The experiences and frustrations of proving a new discipline to those whose minds are either made up or unable to grasp the potentials of new “science,” should provide hope to and encourage perseverance in readers in this era of meteoric technological advances. The use of photographs taken at high altitudes by brave pilots flying in unarmed reconnaissance aircraft was a revolutionary concept at the time. Use of images taken by UAVs (unmanned aerial vehicles) or satellites is now an accepted part of the careful preparation prior to the conduct of military operations and the post-event evaluation thereof.

All of the major campaigns conducted by all three services are well covered, ranging from the bomb damage assessment (BDA) for Bomber Command as part of the RAF,



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to the hunt for the German Battleship Tirpitz by the RN and RNAS, to the uncovering of valuable experimental German radar installations at Bruneval in France. The book also discusses those occasions when the lack of a complete picture had an impact on operations, such as the Battle of the Bulge in December 1944 and the discovery of German armoured forces in the Arnhem area prior to the launch of Operation MARKET GARDEN in late September 1944.

The reconnaissance pilots who simply did not return from missions were described as “overdue.” The stories of these losses add poignancy to this narrative, and remind one that information often comes at a human cost.

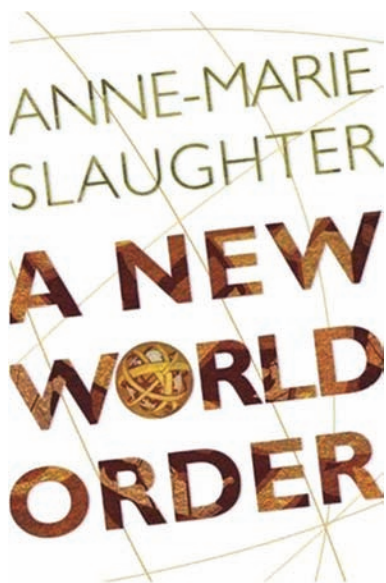
I recommend this as a highly readable and informative book whose value has not diminished since its original publication in 1957. To those involved and/or interested in reconnaissance or the applications of new technologies to assist in the defence of democracy, this book is a must. I am glad that I took my veteran friend’s recommendation to read this book. It was certainly time not wasted, but rather extremely well spent.

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## A NEW WORLD ORDER

SLAUGHTER, Anne-Marie. Princeton, Princeton University Press, 2004, 368 pages.  
\$22.57 CAN

**Reviewed by Lieutenant-Colonel Michael A. Rostek, CD**



A spectre is haunting the world’s governments—the spectre of globalization.<sup>1</sup> Martin Wolf’s comments refer to the perils of globalization that threaten the state and render governments weaker and less relevant. Indeed, globalization, by definition—the process of increasing integration of the world in terms of economics, politics, communications, social relations, and culture—increasingly undermines traditional state sovereignty<sup>2</sup> resulting in increasing demands for greater global governance. It is against this backdrop that Anne-Marie Slaughter has postulated her thesis for a “new world order.”

*A New World Order* tackles the spectre of globalization head on through the use of a disaggregated state model made up of horizontal and vertical government networks. Slaughter’s government networks are empowered through disaggregated sovereignty, which is loosely defined as the “capacity to participate” rather than the more traditional “right to resist.” Interestingly, Slaughter’s disaggregated state model relies on the strength of the state and reformed international organizations. While flatly denying any form of global government, Slaughter’s horizontal and vertical networks are intended to work within and alongside traditional forms of governance.

International relations theory involves three levels of analysis: the international system, the state, and the individual.<sup>3</sup> Working towards a “new world order,” Slaughter targets the international system through the state by way of horizontal and vertical

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networks. She emphasizes that horizontal networks (domestic/foreign government interaction) are the rule, whereas vertical networks (national government and supranational organization), although necessary, are the exception. Rather than make the obvious leap to global government in espousing a “new world order,” a notion she flatly rejects, Slaughter focuses on horizontal networks in what she calls a disaggregated state model which keeps governance at the domestic level and closest to state citizens. Her focus at this level is particularly important as democracy becomes more problematic the further governance moves away from the individual. As such, within democratic states, her proposition for existing national governments that take on both domestic and international responsibilities are well justified.

The counter to this argument is that democracy is not a global phenomenon despite its general ascendancy since the end of the Cold War. The Soviet Union, Africa and the Middle East have experienced “democratic stagnation and retrenchment.”<sup>4</sup> More specifically, the Arab world is generally viewed as undemocratic:

...the Arab world is generally seen as the odd man out in the move of humanity toward universal democratic governance. Though this move began with the demise of communist ideology in the Soviet Union and Eastern Europe, it has yet to penetrate the no less anti-democratic ideas that form the fabric of political life in the Arab world. Perceived from within or without, the ideology of democracy does not seem to fit into the Arab context.<sup>5</sup>

A weakness of Slaughter’s model is that it does not seem to reach beyond liberal western democracies in proposing a “new world order.” It is true that she does make a specific reference to non-democratic states, but these are generally viewed through the lens of regional organizations such as the Parliamentary Association for Euro-Arab Cooperation (PAEAC). One might argue that developing horizontal networks with Arab states outside PAEAC would be illusionary based on different forms of jurisprudence (i.e. Islamic Shari’a law) and anti-democratic sentiment cited above. Afghanistan and Iraq offer current examples of the difficulties associated with this concept. There is no disputing that informational networks can and do exist; however, enforcement and harmonization networks seem exceedingly difficult to conceptualize between democratic and non-democratic states.

Although not explicit, there is a similarity between Slaughter’s thesis and that of private sector networks that have become prevalent with globalization. Since 2000, networked and virtual organizations have become mainstream in the private sector. Slaughter’s proposal for “government networks” and creating a “virtual public sphere” seemingly emulates that of the private sector. Indeed, Slaughter mentions in her conclusion that a world order created by, and composed of, disaggregated state institutions would evolve in ways that keeps up with the changes in the private sector.<sup>6</sup> With the private and public sectors being so fundamentally different (i.e. private sector operates on profit motive, work in secrecy and view risk quite differently), a note of caution is in order as the adoption of private sector practices in the public sector has often met with less than favourable results.<sup>7</sup>

As noted by Shield’s and Evans,<sup>8</sup> governments today continue in a state of profound crisis where large numbers of peoples have come to the conclusion that government is being done poorly, and trust in public officials, both elected and non-elected, continues to fall.<sup>9</sup> Globalization further challenged the effectiveness of government institutions as they began to be perceived as fat, bloated, inefficient, uncreative, and too powerful.<sup>10</sup> As can be deduced, government transformation is required and Slaughter’s horizontal and vertical government networks respond to this requirement. More specifically, Slaughter’s government networks could make government more efficient by speeding up



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government/bureaucratic processes and by the creation of a virtual space that allows for greater transparency and flexibility. Moreover, Shields and Mitchell point out that a great deal of energy and talent is under-utilized at the lower echelons of government hierarchies. Harnessing this energy and talent should make government function better.<sup>11</sup> This is certainly the position taken by Slaughter in postulating horizontal networks as the core of her theory, in that decisions are to be kept closest to the citizenry who were previously excluded from the decision-making process altogether. As noted above, Slaughter acknowledged this criticism of her theory, as well as others, and proposes a menu of general responses and five global norms.

Slaughter outlines five premises upon which the vertical and horizontal networks function with and alongside these states and international institutions: the state is not the only actor in international system, but it is still the most important; the state is not disappearing, but it is disaggregating into its component institutions; institutions still represent distinct national or state interests; states have evolved and will continue to evolve mechanisms for re-aggregating the interests of their distinct institutions; and government networks exist alongside and sometimes within more traditional international organizations.<sup>12</sup> Slaughter also recognizes that any structural blueprint of a new world order of government networks must be backed by power.<sup>13</sup> Government networks will have to make use of both hard and soft power, as “[a]n effective world order needs to harness every kind of power available.”<sup>14</sup>

Slaughter notes that observers of government networks foresee conflicting national and international interests, global networks promoting global technocracy, powerful states running roughshod over weaker states, weaker states excluded altogether and/or that government networks provide vehicles for special interests. In response to these criticisms, Slaughter proposes five potential global/national norms, as informal as the government networks she envisages, designed to ensure an inclusive, tolerant, respectful and decentralized world order: global deliberative equality—emphasizes inclusion, meaning those who can and decide to join a network receive an equal opportunity to participate;<sup>15</sup> legitimate difference—differences reflect a desirable diversity of ideas about how to order an economy or society;<sup>16</sup> positive comity—affirmative cooperation between governmental agencies of nations;<sup>17</sup> checks and balances—the guarantee of continual limitation of power through competition and overlapping jurisdiction;<sup>18</sup> and subsidiary—national institutions are the rule whereas supranational institutions are the exception.<sup>19</sup>

It remains unclear just how Slaughter intends to coordinate the extent of her proposed governmental networks. To say that governmental networks will coexist with national governments and supranational institutions is one thing, but developing the coordination mechanisms to ensure that both state and global interests are well served does not receive attention in Slaughter’s book. She speaks of self-regulation and hard and soft law but when it comes to the re-conceptualization of sovereignty, which is intended to give the vertical and horizontal networks their credibility, it must be acknowledged that even today states are reluctant to accede to anything that is perceived as an erosion of their sovereignty. Re-conceptualizing sovereignty as the “capacity to participate”<sup>20</sup> as opposed as the “right to resist”<sup>21</sup> devolves sovereignty to the numerous horizontal and vertical network levels. The interest being pursued by a regulator, judiciary or legislator at the domestic government level, based on their ability to do so by way of disaggregated sovereignty, might be at odds with a regulator, judiciary or legislator at the national level. What mechanisms are to be developed to ensure that the state presents a unified front, thereby remaining strong, a premise in Slaughter’s model, and not weakened by the potential diffusion of power? I agree with Slaughter that disaggregating the state and giving sovereignty to its component parts will extend its reach; however, without a mechanism to control the diffusion of power that will inevitably result from the expansion of networks could spell disaster for the state.

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While pointing out that governmental horizontal and vertical networks are already in existence today and that states have already surrendered a degree of sovereignty, one would presume that Slaughter's model would become operational sooner rather than later. However, Slaughter offers no such prediction beyond implying, as others have done, that reform of our international system is required sooner than later. In light of the fact that international relations theorists agree on the importance of prediction and forecasting,<sup>22</sup> further discussion and a suggestion as to when her model could become fully operational would have provided a stronger finish to a very interesting book.

Slaughter's disaggregated state model provides an interesting response to the negative aspects of globalization. Her model represents an evolutionary step towards a new world order rather than representing a definitive new world order—while denying the formulation of a global government, Slaughter proposes a disaggregated state model made up of horizontal and vertical government networks empowered by disaggregated sovereignty. However, there are some significant hurdles to get over, in particular, empowering disaggregated sovereignty, the ascendancy of global democracy, and the coordination of horizontal and vertical networks to ensure that the state continues to provide a united front, thereby, retaining its strength in the international system. Additionally, the use of the terms “networks” and “virtual public sphere” conjure up the notion that she is emulating the private sector. While these aspects may actually speed up government decision-making, there is reason for caution based on the fundamental differences between the private and public sectors, and that any wholesale application of a private sector practices or concepts in the public sector will most assuredly produce different, possibly disastrous, results. However, her model offers useful insight into a realm that has its place somewhere between the contemporary international system and a true system of global governance. It is for that reason that this book is a must read by students and practitioners of international relations, globalization and politics.

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## Endnotes

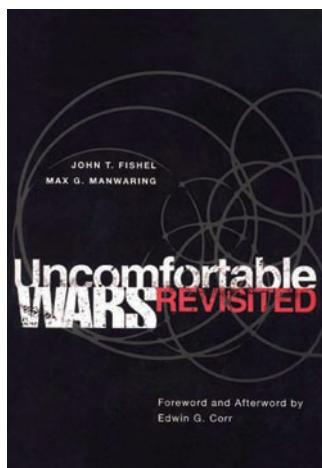
1. Martin Wolf, “Will the nation-state survive globalization?” *Foreign Affairs*, Vol. 80, Issue 1 (New York: Jan/Feb 2001), 178.
2. Karen A. Mingst, *Essentials of International Relations*, 3<sup>rd</sup> ed. (New York: W.W. Norton and Company, 2004), 318.
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4. Thomas Carothers, “Democracy without illusions,” *Foreign Affairs*, Vol 76, Issue 1 (New York: Jan/Feb 1997), 85.
5. Mustapha Tili, “Arab Democracy: A possible Dream?” *World Policy Journal*, Volume XVIII, No 3, Fall 200, accessed on 7 February 2005; available from <http://www.worldpolicy.org/journal/tili.html>.
6. Anne Marie Slaughter, 271.
7. For an account of the perils of private sector management theory used in the public sector see John Micklethwait and Adrian Wooldridge, *The Witch Doctors: Making Sense of the Management Gurus* (New York: Random House, 1997).
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9. *Ibid.*, 14.
10. Donald J. Savoie, *Globalization and Governance* (Ottawa: Minister of Supply and Services Canada, Canadian Centre for Management Development, 1993), 1.
11. John Shields and B. Mitchell Evans, *Ibid.*, 14.
12. *Ibid.*, 18.
13. *Ibid.*, 23.
14. *Ibid.*, 27.
15. *Ibid.*, 247.
16. *Ibid.*, 248.
17. *Ibid.*, 253.
18. *Ibid.*, 259.
19. *Ibid.*, 255.
20. *Ibid.*, 268.
21. *Ibid.*
22. John Lewis Gaddis, “International Relations Theory and the End of the Cold War,” *International Security*, Vol. 17, No. 3 (Winter 1992/93), 9.

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## UNCOMFORTABLE WARS REVISITED

FISHEL, John T., MANWARING, Max G. Norman, OK, University of Oklahoma Press, 2006, 340 pages. \$45.00 CAN

Reviewed by Captain Nils N. French



In *Uncomfortable Wars Revisited*, John Fishel and Max Manwaring have clearly laid out the essential strategic components of success in every type of modern conflict with the exception of major wars. It is these conflicts they refer to when using the term "Uncomfortable Wars." The work is extensive, touching on countless aspects of conflict—political, economic, military, technological and psychosocial—while at the same time helping the reader focus on what is truly essential. The types of conflict under consideration in the work are also numerous; Manwaring and Fishel address not only counterinsurgency but also counter-drug operations, homeland defence, limited war and peace operations. *Uncomfortable Wars Revisited* is less a book than it is a journey through today's security environment. Studying it brings readers several steps closer to understanding the dynamics of today's world.

*Uncomfortable Wars Revisited* is a single book, but it is also the most recent addition to more than two decades of research, application, and refinement of the SWORD (Small Wars Operations Research Directorate) model, otherwise known as the Manwaring Paradigm. The model was developed in the late 1980's by Dr. Manwaring with the intent of finding a solution to the problem of counterinsurgency by examination of the process by which a government in power "resists, defeats, or succumbs to an organized violent internal adversary."

What makes the SWORD model unique is its empirical approach. In its development, numerous experts and scholars were consulted and their input was meticulously collected, each completing an extensive survey based on their knowledge of a particular conflict. In total, a large sampling of forty-three insurgencies was studied; the data was then statistically combined to produce a set of seven principles or "dimensions" that govern the outcome of a counterinsurgency war. The earliest publication of these ideas was in a 1987 internal SWORD report titled "A Model for the Analysis of Insurgencies." Since then, the model has been featured in more than thirty different published works and has influenced the writing of several US Military doctrine manuals. *Uncomfortable Wars Revisited* is the latest on this list. It adds to an earlier work, *Uncomfortable Wars: Toward a New Paradigm in Low Intensity Conflict*, which was published in 1991. The authors have written *Uncomfortable Wars* to reflect both recent global changes and the refinements that have been made to the model since the 1991 publication.

The approach taken in the work of Dr. Manwaring and Dr. Fishel is populace-based and over-arching, stressing the importance of a "holistic, balanced, and unified" approach that integrates all the key components and puts the political element first. It is founded upon the science of their extensive research, but is reinforced by both theory and history. The authors make reference to Sun-Tzu, Liddel-Hart and Clausewitz and provide examples from Italy, Columbia, Somalia, Panama, Kuwait and El Salvador throughout the text. Quotes are used extensively as well, the authors always illustrating their point in the best possible way. The reader learns that neither tactical success nor advanced technology will lead to strategic victory if the strategic vision and policy are not sound. Manwaring and Fishel dismiss bad luck and insufficient troop strength as excuses for failure, forcing readers to re-think the assumptions they hold. The

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fundamental truths that lie at the heart of the matter are then unlocked with remarkable clarity.

The model, and more generally, the book on the whole, aim to provide a framework within which a conflict can be analyzed. Anyone attempting to do so will likely realize that analyzing with the intent to *predict* the eventual outcome is quite difficult—and is not what the model is intended to do. Application of the ideas in *Uncomfortable Wars* is most suited to determining how the approach to a problem must be improved. Applied properly, the ideas will enable practitioners to orient and focus their efforts effectively, thus ensuring a sound strategy.

Those familiar with the model may note that the authors have changed the dimensions somewhat. What were formerly the separate dimensions of "military actions of the intervening power" and "host country military actions" are now combined as one dimension. An opposite change has been made with the delineation of the dimension of "outside support to insurgents" into internal and external support to insurgents. At no point, however, is the reasoning behind the transition explained in the book.

Technically, the book has several strong points, yet there are some minor areas where things could have been done better. The notes augment the text rather well, giving appropriate detail when and where required and the index is much more comprehensive than the usual, listing the essential topics that can be found throughout the book in their entirety. Manwaring and Fishel include a selected biography that traces the history of the SWORD model over the years. It serves both to validate their work and show the reader where to seek further information. Room for improvement is evident in the book's only figure, that of the populace-oriented model that is introduced in Chapter Five. Better graphic design would have quite easily brought the diagram up to the standards of the rest of the book. On a similar note, Chapter One includes *upper-case* sub-sub-headings that follow *lower-case sub-headings*, making it harder to recognize the nesting of ideas. It should be noted that these last two points are, however, of minor consequence.

Edwin G. Corr, a former US Ambassador to Peru, Bolivia, and El Salvador, writes the foreword and afterword of *Uncomfortable Wars Revisited*. Ambassador Corr is an excellent choice, as he is not only the Associate Director of the International Studies Center at the University of Oklahoma, but has experienced insurgency first-hand from the political perspective. In his foreword, Ambassador Corr suggests that Manwaring and Fishel's SWORD model is the modern equivalent to the theory of containment inspired by George F. Kennan during the Cold War. When considering this, it is important to recall that Kennan did not advocate military intervention, only economic—stressing the same primacy of non-military elements that Manwaring and Fishel emphasize. Corr's afterword briefly analyzes the situation in Iraq and then generally discusses how the lessons of the model should be implemented, including the likely challenges ahead.

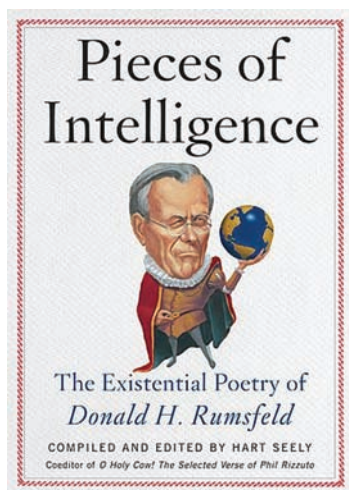
In summary, *Uncomfortable Wars Revisited* gives readers some of the essential background knowledge that is required if they wish to successfully approach the complicated and difficult problems of low intensity conflict from the strategic level. Manwaring and Fishel have produced a work that not only lays out the realities we face with candour and detail, but presents countless fundamentals, considerations and principles that must be applied for success. *Uncomfortable Wars Revisited* is not a collection of fragmented and untested ideas as many similar books often are; instead, it is an amalgam of sound and proven advice. As the authors note, the US has historically been slow to adapt the appropriate policy, attitudes and institutions required for success in low intensity conflict, but is now much better equipped to deal with these challenges and is facing them with some success. The SWORD model and the ideas that surround it are one of the main reasons why.

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## PIECES OF INTELLIGENCE: THE EXISTENTIAL POETRY OF DONALD H. RUMSFELD

SEELY, Hart (ed.). New York, Free Press, 2003, 118 pages. \$20.95 CAN

Reviewed by Lieutenant-Colonel Peter J. Williams, CD



With the passing of former US Secretary of Defense Donald Rumsfeld from the political stage, while there might be some in the US Government and elsewhere who will not mourn his departure, there will be doubtless many among the various global press corps who will lament his absence and yearn for the press conferences where the Rumsfeldian turn of phrase put a sting in the nightly reports. Luckily the author of this volume has enabled the memory of those occasions to be preserved and has thus provided a literary tribute to one of the most unintentionally literary figures of modern times.

What Mr Seely has done is take elements of various speeches, interviews, press conferences and other public utterances of Mr Rumsfeld and present them as poems. For instance, take this haiku (as the author terms it) entitled “In Command” which was taken from a November 12, 2002 Pentagon town hall meeting:

*A government is  
Governing or its not. And  
If not, someone else is.*

When many think of the former SECDEF (known as D.H. Rumsfeld to the literary cognoscenti), it is his strong personality and single-mindedness which often come to mind, and we get a glimpse of this in the rather Machiavellian gem entitled “Needless to Say” taken from a February 28, 2003 Department of Defense briefing:

*Needless to say,  
The president is correct.  
Whatever it was he said.*

Get the picture? I’m reminded of a cross between the works of Ogden Nash and Karl Marx’s *Das Kapital*. Funny he didn’t capitalize “president,” though.

There is no question Mr Rumsfeld was a complex character, and the selected verse of the former Secretary undoubtedly proves that. In what is perhaps his best known work, he displays an irrefutable—if somewhat circular—logic. It is entitled “The Unknown,” and comes from a February 12, 2002, Department of Defense briefing:

*As we know  
There are known knowns.  
These are things we know we know.  
We also know  
There are known unknowns.  
That is to say  
We know there are some things we do not know.  
But there are also unknown unknowns,  
The ones we don’t know we don’t know.*



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Indeed.

In an attempt to establish order upon the chaos of Rumsfeld's musings, Seely has arranged the poems by category as follows:

- ◆ War is Peace: The Master Poet
- ◆ Three Haiku
- ◆ East is East and West is West, but in private conversations, They're Really Behind Us: Twelve Sonnets
- ◆ A Rose is a Rose Unless the president Says Otherwise: Lyrical Poems
- ◆ Nine Poems on the Media
- ◆ Because I Could not Stop for Death, He Kindly Stopped for Saddam: Free Verse
- ◆ Songs of Myself

In all this provides a very entertaining and varied selection of the works of Rumsfeld, which shows (somewhat unintended, perhaps) the multi-faceted nature of the writer.

When reading a good book, which this unquestionably is, one is often asked about the ending. Sadly the book does not cover his final three years in office, so the collection remains somewhat incomplete. However, given that Mr Rumsfeld has twice served as Secretary of Defense, his return to the political stage cannot be ruled out entirely. This notwithstanding, here's what D.H. himself had to say about "endings" in a piece entitled "End Zen" from a February 8, 2008 question and answer session with the media in Munich, Germany:

*How does it end?  
It ends,  
That's all.*

It may be some time before a balanced, scholarly assessment of Donald Rumsfeld's time in office can be produced, and in the near term we may have to accept so-called popular histories which all too often do not have access to or make use of critical primary sources. In the interim, this volume provides a look at Mr Rumsfeld from a very different, and admittedly somewhat humorous perspective. What's more, it is nicely priced in a beautiful hardbound edition and is just the thing to jazz up any conference, OGroup, PowerPoint presentation, or dare I say an extended quote at the end of one's Outlook signature block!

Mr Seely says in his introduction that, "The poetry of D.H. Rumsfeld demands to be read aloud." Quite so. My Regimental Sergeant-Major got quite a chuckle out of this book when I read him some selections on a recent drive to Winnipeg. If he'd laugh at this, you'll howl!!

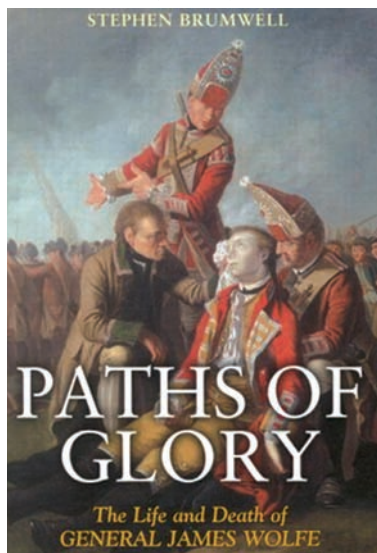
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## PATHS OF GLORY: THE LIFE AND DEATH OF GENERAL JAMES WOLFE

BRUMWELL, Stephen. Montreal and Kingston, McGill-Queen's University Press, 2006, 406 pages. \$39.95 CAN

Reviewed by Major John R. Grodzinski, CD

"Ruthless, incompetent, cantankerous, bloodthirsty and vainglorious?" Only in Canada you say?



Poor James Wolfe. His life and legacy have undergone more revision than George Orwell's Ministry of Truth from the novel *1984* could imagine. Once venerated, Wolfe has been reduced to an ugly, gangling, sickly and tormented little man whose supposed luck is his only remaining military virtue. To author Stephen Brumwell, revisionist historians and Canadian political sensitivities have manufactured an unfair assessment of Wolfe. Brumwell holds that our view of Wolfe rests wrongly on a single dramatic victory that cost him his life and should instead encompass his life's achievements. Before June 1759, Wolfe already enjoyed an extraordinarily high reputation; he was also a professional soldier whose career spanned a pivotal period in the transformation of the British army that coincided with Britain's rise as a global power.

Examining a figure like Wolfe is a difficult job. Wolfe was Britain's first popular hero—even Nelson sought his inspiration when he asked during a period of hesitation in 1794, "what would have the immortal Wolfe had done?" He is embedded in popular consciousness reeling in backlash to the jingoistic output of imperialist historians, "the cloying eulogies of earlier biographers" (p. xix) and the anti-heroic writings of twentieth century scholars, a fate Wolfe's adversary at Quebec, General Montcalm has also suffered.

The ongoing 250<sup>th</sup> anniversary of the conflict that decided the fate of New France has resulted in several new examinations of Wolfe's career, led largely by non-Canadian scholars, with *Paths of Glory* being the sole biography to yet emerge. In many ways, I am thankful that this book is by an historian other than a Canadian. We have allowed our history to become burdened by unnecessary baggage that allows facts to get lost to silly debates, while we have too few trained historians that understand the complexities and subtleties of warfare from this period.

Stephen Brumwell is a former journalist and received his doctorate from the University of Leeds. Specializing in eighteenth century warfare and the Seven Years' War (both in Europe and North America), he is author of two previous books, the well received *Redcoats: The British Soldier and War in the Americas, 1755—1763* (Cambridge University Press, 2002) and *White Devil* (Weidenfield & Nicholson, 2004), a study of the Fort William Henry Massacre and Robert Rogers raid on the Abenaki village that inspired the novel *The Last of the Mohicans*. Brumwell currently lives in Amsterdam, where he works as a freelance writer.

In his first eight years of service, young James Wolfe established a formidable professional reputation. In 1741, he gained a commission into his father's regiment of

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marines, and by the time James was 21 he had cut his teeth in two of eighteenth's century's three world wars, serving through six campaigns and four pitched battles, including the battle of Lauffeldt in June 1747, one of the largest and fiercest clashes of the time. The army suffered from many problems and new combat techniques were required, while the administration of the army needed overhaul. Wolfe experienced these events while on regimental duty, as a brigade major, and as an aide de camp to a general officer.

Within a short time, Wolfe advanced to command the 20<sup>th</sup> Foot, which upon their first review, he found unready and "in imminent danger of being cut to pieces" as soon as they met the enemy (p. 116). Wolfe despised the lack of professionalism in the army, and as Brumwell observes, those who judged the tall and scrawny 22 year old James Wolfe "by his exterior alone soon learned the error of their ways: beneath the uncompromising surface beat the heart of a soldier," who "intended to take an unusually close interest in the efficiency, discipline and welfare of his new unit" (p. 69). He saw the arrival of Hessian and Hannoverian troops in England not as a sorry reliance upon mercenaries, but as an opportunity to learn from soldiers trained by the era's leading commander, Frederick the Great.

In Wolfe's battalion, officers were to spare no pains over the training and welfare of their men. During his campaign service, Wolfe had been as appalled by the mayhem at Dettingen as he was impressed by the firepower exhibited at Culloden. He paid greater attention to target practice and bayonet drill, while adopting a more practical system of delivering fire that was already in use with the Prussians. This system of "alternate" fire provided a simplified tactical system with greater firepower. These principles of training and firepower would follow Wolfe to the Heights of Abraham. Wolfe also issued a detailed catalogue of instructions aimed at maximizing his unit's efficiency (fighting skill). We remember these today as his "Instructions to Young Officers." This paints an image of a far more professional officer than we are generally led to believe. True to his thesis, Brumwell takes more than half the book to describe Wolfe's development as a professional soldier.

Wolfe also followed the unfolding drama in America, where France and Britain were locked in a protracted conflict, wondering where glory might take him. Europe called first, and in 1757 Wolfe was quartermaster general—an important billet usually assigned to an experienced officer—to the force that raided Rochefort. It proved a fiasco, which coupled with even worse news from across the Atlantic, fuelled a mood of national crisis. Wolfe may have had little chance to distinguish himself at Rochefort, but his conspicuous zeal and professionalism caught the attention of the government now trying to reverse the disasters of the previous year. This brought a cleaning of the house and the appointment of a quartet of promising officers to bring new energy to the war in America, the focus of Britain's military strategy. Accompanying Jeffrey Amherst, John Forbes and the charismatic Lord Howe, was James Wolfe, now a brigadier, who was assigned to the Louisbourg operation, thus beginning his link with Canada.

Serving under Amherst at Louisbourg, Wolfe was free to "make a name for himself as a dashing and carefree brigadier" (p. 176), propelling him from the post of "zealous subordinate" (p. 176) to assuming heavier responsibilities, including the cerebral business of strategy; Wolfe was given a detachment of the army to reduce Quebec. Here he would have to deal with planning and logistics unlike anything he had experienced before, and also gain the cooperation of Vice-Admiral Charles Saunders, commander of the fleet for the expedition. Wolfe's attack was one of a three-pronged advance into Canada, which would converge on Montreal.

Canadian readers of this book will likely find the chapters on Quebec of particular interest. Wolfe was handed a military problem that could have confounded the greatest

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of field commanders. Before continuing, it must be made clear that while Brumwell casts Wolfe as an inspired leader, who readily adopted good new ideas and demanded much from his officers and men, Wolfe was also a good soldier but not a great general. Wolfe faced a daunting task at Quebec, where he had to force a decisive engagement with the French; he also had to contend with two scheming brigadiers and with a fever that briefly incapacitated him.

The Beauport shore east of the city occupied Wolfe's army for much of June and July without any results and a major attack had failed in July. In late August 1759, Wolfe, now quite ill, asked his trio of brigade commanders to comment on three proposed plans aimed at the Beauport shore, including one he favoured: a sweeping march to hit the French in the rear. Townsend, Murray and Monkton, in consultation with Admiral Saunders, rejected all of them outright and presented a strike at Quebec from above the city. Was this Wolfe's motive in issuing the memorandum? Brumwell rejects previous interpretations that Wolfe was not serious about attacking the Beauport shore and hoped to force his subordinates to accept the only other option, above the city, preferred by Wolfe. Instead, Brumwell offers a military rationale for the brigadier's response: the situation had changed dramatically—on 27/28 August, five of Saunders' ships had run the gauntlet past Quebec and were now up the river, tilting the naval balance there towards the British, a development which the brigadiers sought to exploit. Cutting the logistical lifeline between Quebec and Montreal was understood, now it was becoming practicable. Wolfe may have been dejected by the outright dismissal of his favoured attack, but he also appreciated the advantage of striking at Quebec from the west and had considered it previously. However, any possibility of doing so was subject to the presence of "our ships of war above the town" (p. 209). With fall approaching, Wolfe agreed with his brigadiers, and was in greater favour of their plan by the end of August, when a frigate and other vessels added to the naval presence upriver. The Royal Navy's role was crucial to the successful outcome of this campaign, and it is unfortunate that little ink has been spilled to provide a decent account of naval operations at Quebec.

By early September, Wolfe had overcome an incapacitating illness and he pursued operations with new vigour. A reconnaissance was made of potential landing sites, and following a solo reconnaissance on 10 September, Wolfe had his plan in place, and the rest is, shall we say, history.

Brumwell goes beyond military topics and examines other facets of Wolfe's life, including romance, his relationship with his family and friends, and his leisurely pursuits. Throughout, Brumwell uses the historian's tools of understanding the context, mastering the primary and secondary literature, and adding a dash of common sense. He prefers evidence to conjecture or generalization, which is evident by the 61 pages of endnotes, some of which continue discussion of some of the finer points of the story.

My sole criticism of this excellent book is due to the demands of the publisher and not the author, that is, making it too short. Well, 330 pages is certainly not short, but much had to be left out or left to a few brief passages, such as the intricacies of eighteenth century fire systems.

Brumwell concludes by reviewing the fallout from the Battle of Quebec. There was much merriment in London when news of Wolfe's victory arrived there on 14 October 1759; and much celebration throughout British North America. A French effort to regain their colony failed. In the years that followed, some of those who survived the ordeal entered into public and private bickering over what happened, drawing Wolfe into their debates. Brumwell too wonders: had Wolfe lived could he have matured into a Marlborough or Wellington? Unfortunately, any conjecture relies upon the single independent command that Wolfe held. Quebec was a magnificent feat of arms in which

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Wolfe focussed the combat power of his outnumbered army at a decisive point. Wolfe may have been an inspired leader, a good soldier and a good trainer, but he never achieved that strategic vision to bolster his tactical flair, which puts him less in the camp of a Wellington and perhaps more of a Field Marshal Alexander, the allied commander in Italy during the Second World War, of whom it was said: "there is no doubt he held some of the highest qualities of a commander...but when it came to working on a higher plane...he was at once out of his depth...and always sought someone to rely on."<sup>1</sup> At Quebec, Wolfe maintained a steely resolve, but needed help from someone and that someone was the Royal Navy, who conducted a masterpiece of amphibious operations.

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## Endnote

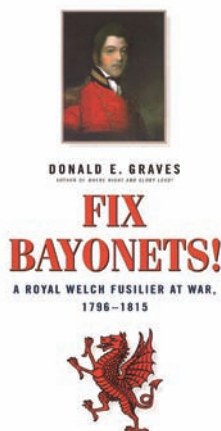
1. This quote is attributed to Field Marshal Alenbrooke and is reproduced in Carlo D'Este, *Fatal Decision: Anzio and the Battle for Rome*. New York: Harper Collins, 1991, p. 55.

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## FIX BAYONETS! A ROYAL WELCH FUSILIER AT WAR

GRAVES, Donald E. Toronto, Robin Brass Studio, 2006, 490 pages. \$ 39.95 CAN

Reviewed by Lieutenant-Colonel Keith W. Kiddie, MA



You could hear the audible sigh when I announced to my family that I had been asked to review a (nother) book about the Napoleonic era. At least this time it was not accompanied by the usual eyebrow raising and eye rolling that normally occurs when I use the "N" word at home. The all-pervading view being, what else could there be left to review? Especially in a subject area that has been so extensively and exhaustively researched. Indeed, 2005 had seen a plethora of Napoleonic material being published, mainly to coincide with the bi-centenaries of Austerlitz (*La plus éclatante victoire de l'Empereur*) and Trafalgar ("Nelson's greatest triumph"), plus numerous associated studies. It would certainly take a markedly different approach to tempt the jaded Napoleonists' palates after such a surfeit. However, Donald Graves, a well-known and prolific Canadian military historian,

was not one to shrink from the challenge and he has produced a unique study, *Fix Bayonets! A Royal Welch Fusilier at War*, which charts the career of a regular British officer (Thomas Pearson, 23<sup>rd</sup> Foot, Royal Welch Fusiliers), through the course of the French Revolutionary, Napoleonic wars and beyond.

It may, perhaps, be better to start by saying what the book is not. *Fix Bayonets!* is not exactly a biography in the way most people would expect, although it does feature the (military) life of Thomas Pearson as the central silken cord of the book, around which the other stories are woven. It is neither a general history of the British Army in the period nor a specific Regimental history of the Royal Welch Fusiliers, although both elements feature heavily throughout the volume. It is not only an account of the British Army in the Peninsular War, although it is a large part of the story, but also includes accounts of partially forgotten campaigns in Egypt, Denmark and the Caribbean. It is not exclusively a history of the wars against France (although this theme provides the main backdrop for the story), featuring, as it does in the latter part of the book, the War of 1812, fought against the Americans, largely in Canada. It is not a Canadian colonial history, although there is a strong Canadian element (Pearson, before deploying to the



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Peninsular, was stationed at Halifax and married a noted New Brunswick beauty), neither is it a British social history of the era, although the book is liberally interspersed with information and anecdotes of British life and social mores. So the question must now follow, what exactly is it?

Graves has done an exceptionally skilful job in pulling together all these disparate threads into a cogent and intelligently crafted tale. As I said earlier, the central theme of the book is the story of the service of Thomas Pearson, as close to a real life approximation of the character in the Bernard Cornwell "Sharpe" novels as is possible to be, gathering as he progresses all the other aspects of the associated themes into a unified entity. Pearson comes across as a remarkable fellow, clearly highly dedicated and militarily competent, albeit rather brusque and single minded in an age where not all officers were so motivated. He was also fortunate (and hardy) as during the period he campaigned Europe, North Africa, the Caribbean and North America. He saw combat from the extreme winters of Canada to the burning deserts of Egypt, from the damp, flat, cultivated coastal regions of Holland and Denmark to the jungles of the Caribbean, experiencing numerous combined operations with the Navy en route. He fought against the French (and their allies), Danes and Americans, whilst he counted as allies, Spanish, Portuguese, North American Mohawks and Canadian Fencibles. In the process, he fought in 15 major battles and numerous minor skirmishes, and was wounded five times. In an era when disease and illness carried off more than those suffering battlefield wounds, it is perhaps remarkable that Pearson lasted longer than the second chapter, and even more so that he survived until 1847 in the rank of Major General. That Graves should be able to tell such a lucid and fascinating story is all the more remarkable when one takes the time to examine the extensive notes and bibliography sections (nearly 30 pages), where it is clear that Pearson, himself, left very little evidence to go on. It is apparent from the text and the bibliography that Pearson, unlike many of his contemporaries, did not leave behind a journal, diaries or even an abundance of personal correspondence for the author to peruse. Whether this was by accident or design it is impossible to tell, so in order to produce an impression of "the officer Pearson," Graves has had to do some in-depth detective work, going through the writing of Pearson's contemporaries and peers to produce a viable picture of the man. Thus, much of what can be gleaned about the man is by inference and Graves has had to use the words "perhaps," "possibly" and "may" rather more frequently than a biographer would have liked to, but as I said earlier, this work is more than a stand-alone biography.

The first part of the book deals with Pearson's and the Royal Welch Fusiliers' stories running in parallel. In this section, their twin fortunes are described, covering the almost forgotten campaign in The Helder (1799, Holland), not an altogether auspicious beginning, and then the rather more successful venture in Egypt (1801) against the army Napoleon had abandoned there. Under the skilful guidance of General Abercrombie, the British Army began to learn the lessons required to beat the French and to become a seasoned fighting force. Other areas of operations are covered, including the siege of Copenhagen (1807) and the Martinique campaign (1809), illustrating the growing competence of the British Army and the successful cooperation with the Navy on combined operations. There are also interesting descriptions of garrison life in the colonies, notably in Halifax, where various personalities appear. Sir John Moore, being but one example, was with the army at The Helder and in Egypt. He was largely instrumental in the formation of British Rifle Regiments and Light Infantry tactics, which Pearson in the latter portion of the book seems to be especially associated with. Throughout, there are numerous vignettes of military life, one of the most amusing being the story of how the Royal Welch Fusiliers obtained their mark of distinction, the "Flash." The incident occurred in Halifax in the spring of 1809, when the regiment was ordered to cut its queues (a rather more elaborate form of pigtail). This order was complied with

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under great protest especially from the regimental wives, who took an inordinate pride in the manner of dressing their husbands' hair. Apparently, the wives "cursed and muttered," but were silenced by a single stony stare from the then Commanding Officer, Lieutenant Colonel Ellis, who had the power to dismiss the wives from the regiment (If only I had the same power over one!). However as a sign of protest, the officers fashioned the ribbons with which they had tied their queues into the "Flash" that they then wore of the backs of their uniforms and still do to this day.

The central portion of the book then deals with Pearson and the Fusiliers in the Peninsular campaign. There are many insights into the way of life on campaign and as in the previous section there are numerous anecdotes and a cast of colourful characters. However, the centrepiece is the description of the run up to the battle of Albuhera (May 1811) and its aftermath. Graves produces a highly readable narrative, and succeeds in portraying the details of one of the bloodiest engagements fought by the British Army (with its Spanish and Portuguese allies) in the Peninsular campaign. He obviously has availed himself of all the most recent research and in his narrative, manages to describe all aspects of this complex engagement in a simple, easily understood form. Most military enthusiasts will be only too aware of the famous prose written by William Napier describing the attack by the Fusilier Brigade at the culmination of the battle, exemplified by the immortal lines "and then was seen with what strength and majesty the British soldier fights...Nothing could stop that astonishing infantry." Graves, rather sensibly, does not include the Napier account in his narrative but neatly includes it as a separate Annex, coupled with a discussion over the later controversy as to Marshal Beresford's conduct of the battle. The net result was a British victory but at a terrible cost, for when the battle was over there were over 14,000 dead and wounded from both sides left on the bloody field. Pearson played an important role, in that he was selected to command the combined light companies on the flank of the allied army, which again indicates his professional competence. At the end of the battle, due to the fact he was the most senior officer still standing, Pearson became the temporary Fusilier Brigade commander. Graves does a first rate job in his description of the battle, being both comprehensive and lucid.

It was a few months later during a relatively minor action of the brigade, at Aldea de Ponte, that Pearson received a serious leg wound that saw him evacuated from Spain. This then, sets the scene for the next major section of the book, during which the stories of Pearson and the Royal Welch Fusiliers diverge, but which marks a return to the Canadian and light infantry themes. Pearson was convalescing from his wound when the call came from his old commander in Canada, Sir George Prevost, who knew him from their days in Halifax and the Martinique campaign, to serve together. Given his Canadian connections, he readily accepted the appointment of inspecting officer of militia. As luck would have it, Pearson arrived in Canada just after the Americans declared war, and soon he was responsible for the conduct and training of the militia plus the defence of part of the St Lawrence River, based at Prescott. Again, there are numerous anecdotes which help convey a general feel for the man, who clearly did not suffer fools gladly and expected nothing but the highest standards from those under his command, whether regular, militia or fencible units. He was innovative in approach in that he set up a highly effective intelligence gathering service on his front and planned an audacious assault against the American base at Ogdensburg. Again, a bit like his fictional counterpart "Sharpe," Pearson seems to have been in more than his fair share of action. He commanded the advance guard at the Battle of Chrysler's Farm (November 1813), which put paid to the American plans on the St Lawrence. He was present at the attack against the American base at Oswego, a combined operation where the British attempted to get ahead in the so-called "Battle of the Carpenters," which was the see-saw struggle for naval supremacy on Lake Ontario. Later in the war

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he was on the Niagara front and saw action at the Battle of Chippawa (July 1814), where the American army finally matched the British regulars and later that month at the Battle of Lundy's Lane, the bloodiest battle on Canadian soil, a viciously fought contest which continued after dark with neither side willing to admit defeat. In both of these battles, Pearson commanded the light infantry elements on the flanks of the British force. In each case, he acquitted himself well in difficult circumstances and must take some of the credit for the selection of the excellent defensive position at Lundy's Lane. His active involvement in the war ended when he received his fifth wound at the abortive siege of Fort Erie. It is in this section of the book that readers can really appreciate Graves' handling of the historical material. He is an acknowledged expert on the War of 1812 and has written separate volumes on the battles mentioned above. It is to his great credit that he manages the detail without becoming enmeshed in it, still continuing the thread of Pearson's career using the backdrop of the war to great effect. It is clear he is a master of his subject, combining many interesting social aspects of the conflict and an impressive gazetteer of associated players in the drama.

The final part of the work charts the years beginning from 1815 to Pearson's death in 1847. Much of that time he was the Colonel of the Royal Welch Fusiliers and so, in a rather neat manner, the stories which diverged now come back together at the end of the narrative. Again there is very little actually written by Pearson himself from which to get a feel for the man; however, much is conveyed by the farewell letter written by Pearson to the regiment on his promotion to Major General. He departs from his beloved Fusiliers after 17 years in command with the words: "The most painful moment in my life has arrived when I am obliged to take final leave of the Royal Welch Fusiliers, in which distinguished corps I have served Twenty—seven years..." The emotional pain in this farewell is no less tangible than his physical pain having been wounded on five occasions, and that really says it all about the man.

Graves has done a magnificent job in melding together all the various themes and issues covered in this book. In addition, he is well supported by his choice of illustrations, some of which are well known, but others, particularly those to do with the war of 1812, may be new to those on the European side of the Atlantic. I was particularly impressed with the inclusion of many portraits of the personalities involved in the story, especially the less well-known characters in the Spanish, Portuguese and American armies, which must have taken considerable research effort to find. What is also exceptionally pleasing is the number and quality of the maps and diagrams that accompany the text. It is one of my pet hates to find all the maps clustered together at the front or back section of a book, which then requires endless page flicking or a loss of understanding of the narrative. I am delighted to say they are all very clear, informative and appropriately placed within the body of the text.

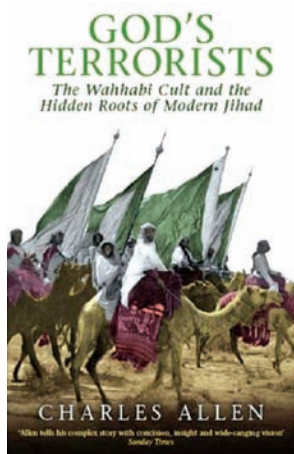
The question posed at the start of this review was, "What exactly is it?" Well, it is an excellent book, which is indeed a different approach to a well-known subject area. Because it covers such a wide canvas and includes so many useful facts about the era in general and the British Army in particular, I would humbly suggest that *Fix Bayonets! A Royal Welch Fusilier at War* would be a welcome addition to any Napoleonic enthusiast's collection, and I unreservedly recommend it. Graves has managed to juggle all of the various aspects of the story and has produced a highly detailed work, which has been researched in considerable depth to form a genuinely interesting perspective on his subject. One can only live in hope that one day a small package may be found in a dusty attic or desk drawer in New Brunswick, or perhaps somewhere in the UK, containing a diary or journal written by Pearson himself, which would give Graves the fine excuse for a sequel.

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## GOD'S TERRORISTS: THE WAHHABI CULT AND THE HIDDEN ROOTS OF MODERN JIHAD

ALLEN, Charles. London, Little Brown, 2006, 368 pages. \$30.00 CAN

Reviewed by Lieutenant-Colonel Martin M. Kenneally, CD



Here is the book that fulfills Santayana's thought that he who fails to understand the past is doomed to repeat it. Charles Allen, a highly acclaimed historian of the British Raj, has written a beautiful work that perfectly shows the relevance of history to the modern day. Why does the educated soldier want to add this to a burgeoning rucksack of professional development good ideas? Because in my view, this following quotation captures the essence of why we need more than an "educated" officer corps—we need a thinking army that understands that the ultimate effect-based operation is to persuade.

*It is a fundamental mistake to see the enemy as a set of targets. The enemy in war is a group of people. Some of them will have to be killed. Others will have to be captured or driven into hiding. The overwhelming majority, however, have to be persuaded.*<sup>1</sup>

What do The Wahhabi cult and creed and the Holy War waged in the deserts of Arabia and the venerable North West frontier of the British Empire have to do with Al Qaeda and 9/11? Allen methodically joins the links in the chain of historical evidence that shows how the Wahhabi creed served as the powerful accelerant to the so-called "Hindustani Fanatics", Pathan and other tribes, fighting against other Muslim Caliphs in Arabia, the Ottoman Empire, and British Empire forces in India, even playing a hitherto unknown or under-noticed role in the 1857 Sepoy Revolts.

Allen, an eminently readable historian with the flair of a novel writer and the patience of a detective, takes us on a journey that shows how the Wahhabis were brought to near extinction on numerous occasions, usually by more moderate Islamic rulers threatened by their extreme and exclusive interpretation of Islam. Despite being nearly wiped out, they have always regrouped and resurfaced, using sophisticated covert methods. Modern Saudi Arabia was formed by the combination of a ruthless Bedouin chieftain named Ibn Saud and a descendant of Muhammad Ibn Abd Al-Wahhab, an eighteenth century Islamic cleric who codified jihad and the Wahhabi sect's fundamentalist doctrine. With the power of the Emir and the guidance of the religious advisor, his son Abd al-Aziz ibn Saud, certain tenets emerged that persist to this day: The use of warfare as a legitimate tool to spread the Wahhabi creed and the intolerance for opposition; and the use of advanced weapons and tools of warfare, incorporated by the "religious advisor" into the Emir's armoury. (The combination brings to mind the role played by Cardinal Richelieu with the King of France and their symbiotic partnership.) The concept of dying in a holy cause, a jihad, with the endorsement, even the expectation of the Emir and Imam, integrated an interpretation of the Quran and the warrior ethos of the Bedouin.

Most fascinating, Allen shows how the same narrow Wahhabi creed and proselytizing methods influenced two far-flung martial peoples, the Bedouin of the Arabian deserts and the Pathan of the Northwest Frontier. In India, the Wahhabi creed was fostered and sustained by the Madrassahs. More recently, he shows the modern convergence of these beliefs in Pakistan and Afghanistan and the rise of the Taliban, which means literally, the plural of "Seeker of Knowledge." The Taliban sheltered and

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protected another group of religious fundamentalists, Al Qaeda, ("The Base") whose aspirations were and remain global and whose willingness to draw on the violent means and narrow interpretations of the original Wahhabi creed has been expanded exponentially.

Charles Allen has done us a great service with this book. His knowledge and explanation of the Pathan history, culture and warrior ethos is valuable in itself, particularly for anyone deploying to Afghanistan. The combination of understanding of the influence of Wahhabism, the theological guide for modern Islamic terrorism, is of value to anyone who wishes to understand the ongoing global conflict that we cannot avoid. As Sun Tzu intimated, we need to know the enemy as well as we know ourselves if we wish to be victorious in this century's battle. Read this book and let history be your guide. Fundamentalism of any sort is as dangerous to the human race as global warming. Cunning, agile, and suicidal fundamentalists are the modern smartest bomb, against which in the long run, the best defence lies in knowledge like this rather than add-on armour.

*There is no God but Allah, and Mohammed is the prophet of Allah. Such is the cry which electrifies 250 (sic) million inhabitants of this globe. Such is the cry which thrills them so that they are ready to go forward and fight for their religion, and consider it a short road to Paradise to kill Christians and Hindus and unbelievers. ...it is that cry which the Mullahs of Afghanistan are now carrying to the mountain hamlets and towns in order to raise the people of that country to come forward and fight. That is a cry which has the power of joining together the members of Islam throughout the world, and preparing them for a conflict with all those who are not ready to accept their religion. <sup>2</sup>*

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## Endnotes

1. Frederick Kagan, "War and Aftermath", *Policy Review*, August 2003.
  2. Dr. Theodore Pennell, Missionary Doctor at Bannu, *Among the Wild Tribes of the Afghan Frontier*, 1909.
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## GERMAN BATTLECRUISERS 1914-18

STAFF Gary, Oxford, Osprey Publishing, New Vanguard, Number 124, 2006, 48 pages.  
\$22.95 CAN

**Reviewed by Lieutenant-Commander Mark R. Condono**



One of the latest volumes published in the New Vanguard Series of Osprey Publishing, *German BattleCruisers 1914-18* is a fascinating account of one of the main types of warships comprising the heart of the German Navy during World War One.

Gratitude goes to author Gary Staff and Illustrator Tony Bryan for coming up with this impressive tome. Both are to be commended for this informative and richly illustrated work which covers the entire class of German battlecruisers in service for the period covered.

The book begins with a brief historical introduction that delves into the German concepts of battlecruiser design, function and characteristics. One of the early advocates of the type was Kaiser Wilhelm II, who commented in an article on the distinction between



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battleship and battlecruiser displacements, and noted the importance of the latter based on its armament, speed, armour and function within the battle line.

The author then takes us aboard the different ships beginning with SMS *Von Der Tann*—the first battlecruiser of the Imperial German Navy and a participant in the Battle of Jutland and in several attacks on Russian batteries on the Baltic Coasts. Next shown are the sister ships SMS *Moltke* and SMS *Goeben*, which would go on to have a long career in the Turkish Navy. They were followed by SMS *Seydlitz* or Cruiser J, a veteran of the Helgoland, Doggerbank and Jutland Battles. A few pages further are the ships of the *Derfflinger* class, comprising SMS *Derfflinger*, *Lutzow* and *Hidenburg*. This class is considered an innovation in German battlecruiser design. The trio also took part in various engagements of the conflict. Notable is the informative piece on the lessons of the Doggerbank battle, which looks on the German view on armour protection and gun charges.

The book is a remarkable reference work, as each ship's particulars are well covered, ranging from its general characteristics, armament, armour, seaworthiness, its machinery, changes in design, namesake and service history—this section is of immense value, as it not only details the individual ship's action in battles, but also provides vignettes of information such as the names of the ship's commanding officers and their dates of command. One of the book's strengths is that technical details are comprehensible to readers. Specifications tables are given for each ship class, detailing everything from its building contract, keel laying to its complement. A comparison table of data with other battlecruisers in service with the British Royal Navy is also listed.

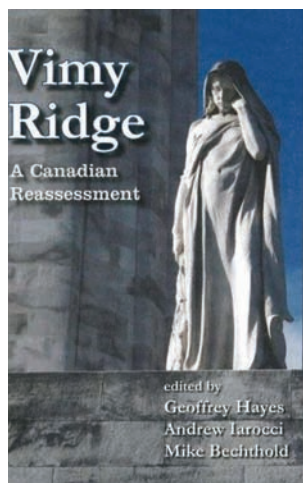
It is well supported by photographs, a number of diagrams showing the turret details and armour cross sections, a cutaway drawing and a bibliography. The colourful artworks will be of importance for discerning differences in design and noting ship colors.

In conclusion, the book is finely written and extraordinarily researched. It would appeal to and make a valuable addition in the library of naval and maritime historians, scale modellers, naval architects, naval ordnance specialists, marine engineers and those interested in the ships and history of the Imperial German Navy. The book is highly recommended.

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## VIMY RIDGE: A CANADIAN REASSESSMENT

HAYES Geoffrey, IAROCCHI Andrew and BECHTOLD Mike, eds. Waterloo, Ont, Wilfred Laurier University Press, 2007, 358 pages. \$38.95 CAN



**Reviewed by Major Gordon Ohlke, CD**

Did Canada become a nation on Vimy Ridge? Sir John A. Macdonald thought Canada was a nation before 1866 and that the construction of the "Intercolonial Railroad" would be a worthy endeavour to express the national spirit in the wake of Confederation. Myths are powerful talismans in the life of a nation. Great personalities, great endeavours, triumphs and tragedies are key materials in the fabric of a national psyche. Typically, students of Canadian history have learned more about our railroads than our battles.

Hayes, Iarocci and Bechtold have put together a very interesting collection of essays that explore the myths of Vimy and provide a mature historical overview of the battle. The battle of Vimy Ridge is put in the context of the Great War, the Western Front and the British Expeditionary Force

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(BEF) in the larger battle of Arras 1917 of which the assault on Vimy Ridge was but one operation.

But what an operation it was! The Canadian Corps operated together as a complete formation for the first time. It met all of its objectives vis-à-vis the capture of the ridge. The ground taken was held. It was a bright success in a long brutal war which had seen few such successes. Indeed, it provided a much needed boost to military and home front morale along with fuel for the British Empire propaganda machine. Operationally, the Vimy battle demonstrated that detailed operational and tactical planning combined with modern training, organization and equipment were the keys to victory.

The editors offer a collection of essays taking a thematic approach, with sections focused on the strategic background, the actual battle and the aftermath. Essays are eclectic and topical, yet eminently readable and of considerable historical value. For example, some chapters focus on the often “unsung heroes” of warfare, such as the engineer, medical and logistic units and personnel, all who are given their due. In addition, there is an interesting collection of photographs that support the themes and useful maps throughout to support the text.

Other chapters deal with the wider context of the war, the conditions of the armies engaged and the development of strategy, operations and tactics. Key personalities are profiled, as are the characteristics of the troop formations involved. For instance, each of the four Canadian Divisions, Canadian Corps troops and the attached elements of the 5th British Division and Corps troops are discussed and their combat missions critiqued.

Overall, several essays stand out: In chapter 1, “Vimy Ridge and the Battle of Arras: A British Perspective”, Gary Sheffield provides an excellent account of the overarching Allied and British strategy for the wider operations comprising the Battle of Arras 1917 and its implications. In Chapter 2, “The End of the Beginning: The Canadian Corps in 1917”, Paul Dickson relates many of the issues and growing pains in the development of the Canadian Corps, not the least of which was the erratic if not eccentric direction from Sir Sam Hughes as he ricocheted between Ottawa, London and the front. Patrick Brennan profiles General Sir Julian Byng and his highly positive influence upon individual Canadian officers and indeed the entire Canadian Corps in Chapter 5. In a somewhat sobering alternative interpretation, Andrew Godefroy examines the view from “the other side of the hill” in Chapter 13, “The German Army at Vimy Ridge”. The German Army assessment was that they won the wider battle of Arras, with the engagement at Vimy resulting in a draw.

The maturity of the work is reflected in how it treats the relationship between the British and Canadians. Essentially, this is explained factually, and the relative performances of British and Canadian troops are treated likewise. Absent are the annoying obfuscations of an obligatory “anti-British Empire political correctness” or a de rigueur “colonial cringe” often found in other Canadian historical writings.

Likewise, the book tends to refute “the donkey theory” of higher command, which portrays the higher commanders as aristocratic cavalry officers, remote from their troops, oblivious to current operating conditions and ossified of cranial content. Quite the contrary. Numerous times the authors pay tribute to the professional and even inspirational leadership qualities of the commanders and staff, especially those British professional officers who mentored Canadians as they developed into efficient commanders and staff officers at the levels of battalion, brigade, division and ultimately to the level of the Canadian Corps. Bluff, straightforward, comfortable with all ranks and professional, Julian Byng was—much to the continuing surprise of many—an aristocratic cavalry officer!

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The closing theme of the book, "Part III: Aftermath and Memory" illustrates the degree to which popular myth-making and dignified commemoration may go hand in hand. It may be that there are lessons here for a generation that must honour a new cadre of veterans. Particularly in chapter 16 "After the Agony in Stony Places", Jacqueline Huckner cites the creator of the Vimy monument Walter Allward, who saw the sacrifices of the fallen as a continuum from the victory in war through the rebuilding in peace and the further progress of civilization: "So I have tried to show this in this monument to Canada's fallen, what we owed them and will forever owe them."

Ultimately, this is a book to be cherished and perhaps even shared with those who have questions about the day that Canada stood up and carved a place for itself in military history.

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## **PEACE AT ANY PRICE: HOW THE WORLD FAILED KOSOVO**

KING, Iain, MASON, Whit. Ithaca, Cornell University Press, 2006, 297 pages. \$29.50 CAN

**Reviewed by Ms. Heather Hrychuk**

In today's security environment the mention of an unsuccessful attempt at intervention and nation-building usually brings Iraq and Afghanistan to mind. Regrettably, little mention is typically made of Kosovo. To address this failing, authors Iain King and Whit Mason examine the international community's commitment to the province in, *Peace at Any Price: How the World Failed Kosovo*.

In the work's introduction the authors, both of whom served in the United Nations Interim Administrative Mission in Kosovo (UNMIK), outline their objective, "to explain the international protectorate as a whole. By being more comprehensive than other studies, [...] avoid missing the forest for the trees." In light of this objective, the study is successful, as it is the first major examination of the UNMIK that analyzes the accomplishments of the mission en masse. In doing so, the work easily elucidates the mission's challenges and strengths, and most importantly from a critical perspective, its limitations.

Unfortunately where the work falters is its lack of precision regarding how to deem a nation-building mission successful. Where the authors criticize the UN, and NATO for operating with vague mandates, and consequently an unclear system of measurement, they fall victim to the same pitfall.

Here, attempting to write a comprehensive work on the failings on the UNMIK mission, the work starts from the unclear premise of assuming the mission had failed, without offering the criteria against which they measured the international effort. While it may be accurate to assert that the world did indeed fail Kosovo, what exactly constitutes success and failure must be addressed. Is success measured simply as the absence of war and wide spread ethnic violence? If so, then perhaps the international community was successful. If success is measured in terms of democratic principles, a functional judiciary and administrative services, the mission would surely be viewed as a failure. Or, with Kosovo being the largest per capita investment in peace building the world has ever seen, is failure attributed simply because returns have been unimpressive to contributing nations? Without clarification of the measures of success (or alternatively, failure), it is difficult to discern if the lessons identified are derived from individual biases, personal experience or from objective analysis against an explicit set of criteria.

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This issue notwithstanding, the authors do provide excellent insight into the complexities encountered in the almost seven years of nation building undertaken by the international community. Through organizing the work, and the UNMIK mission itself, into four different phases, the authors provide a useful framework for mission analysis. In doing so, ten distinct lessons from the Kosovo experience are extracted, many of which offer valuable insight for future nation building efforts. Unfortunately the first hand account of institutional weaknesses inherent in UNMIK raise questions regarding the feasibility of ambitious, transformative nation building missions lead by multilateral institutions. The authors do not confront these questions directly, rather dismissing them by stating that the international community has a duty to intervene.

Despite the weaknesses contained within this analysis of the Kosovo intervention, the work should not be dismissed outright, as the lessons learned identify issues pervasive when working in a multilateral environment. In light of the nation building challenges currently encountered in Afghanistan, these lessons are particularly salient.



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# THE STAND-UP TABLE

## Commentary, Opinion and Rebuttal

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### BALANCED GROUPINGS AND THE DOMINANCE OF GROUND IN REMOTE AFGHANISTAN AREAS

**Mr. Robert Caldwell, Directorate of History and Heritage,  
and recently returned from Afghanistan, writes ...**

The purpose of this short article is to argue that the well-known principles of dominating ground with observation and fire is the meeting point between counter-insurgency theory and the mind-set required for mechanized all-arms operations.

In my opinion, the requirement to think in terms of dominating ground is a principle that troops and journalists can easily grasp, and an emphasis on this requirement can be used to sustain force generation priorities for fighting organizations in Afghanistan.

#### **Ground and Counter-Insurgency**

Afghanistan, with its mountains and deserts, is a hostile and unforgiving environment. The ground, therefore, is the key determinant that shapes all counter-insurgency operations in that country, where many operations are conducted in remote areas in the southern provinces, far from Kandahar City and the walled farm compounds with entrenched irrigation systems near the Arghandab river valley. These remote areas are large tracts of ground which act as transit spaces for Afghan peoples, both insurgents and resident families who have perhaps fled as refugees.

A Canadian mechanized battle group is often presented with a critical challenge: the resettling of these remote areas, and the restoration of normal life with routine patterns. Operations in rural areas are widely dispersed often over distances of up to 100 kilometres.

Canadian Forces are fortunate in having their own well-developed draft text on counter-insurgency,<sup>1</sup> and Canadian troops in Joint Task Force Afghanistan (JTFA) understand counter-insurgency principles. They are well aware of the political and administrative steps required to build visible trust, amongst the Afghan peoples as well as Pakistan and Iran, in all levels of government.

Moreover they realize that these Afghan peoples have witnessed the ebb and flow of thirty years of war. Afghans understand that any outsider to South-West Asia must operate with a bag of capital, expressed in the limited goodwill demonstrated towards them. Canadians know to spend this credit slowly and wisely, because it can quickly dissipate if they rush, impose civilian casualties, or alienate the peoples who they are trying to serve.<sup>2</sup> Yet, transit areas in the remote areas must be dominated for two reasons: so that Afghan peoples can return, and reconstruction can begin.

Canadian troops also understand all arms co-operation in a mechanized battle group, especially in dispersed operations. In 2006 and 2007 the JTFA battle groups were superbly organized and equipped, which provided them with many capabilities. So where do these disparate bodies of thought—counter-insurgency theory on one hand and mechanized all arms tactics—meet each other?

Counter-insurgency theory can only be applied when ground is dominated by direct and indirect fire, as well as by dismounted infantry patrols. Each capability can interdict insurgents and their vehicles passing through or occupying the area, usually at night, in



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order to coerce or influence Afghan residents or transient workers. The present Canadian battle group in Afghanistan is organized with six capabilities that easily dominate ground in remote rural areas, and thus provide the first, and hopefully sustained, environment for reconstruction and visible evidence of legitimate governance. All who know the battle group know these capabilities, which form a set of “home truths” universally understood by troops and journalists who understand their application. Nevertheless a brief unclassified review will be useful.

## The Six Battle Group Capabilities

**Surveillance.** Canadians have integral surveillance equipments ranging from simple binoculars through to high-resolution weapon sights and surveillance devices, as well as links to information provided by higher assets. Knowledge is power, and the power of the battle group is provided by their superb information capabilities. **Immediate need:** In several cases sub-unit command posts are needed in order to utilize the high volume of information available.

**Tanks.** The tank squadron in the battle group provides a first round hit capability—by day or night—to about 4000 metres. When detached to mechanized companies tanks form the keystone for ground-dominating planning. **Immediate need:** an all-season capability is needed to exploit tank capabilities through the summer heat.

**Artillery.** Canadian gunners are highly trusted in Afghanistan for several reasons:

- a. their accurate first round hit ability at long range;
- b. the 155 mm projectile is far more effective than 105 mm light gun rounds; and
- c. their ability to fire from austere gun positions.

**Immediate need:** Continue to maintain the maximum number of gun troops capable of autonomous operations coordinated by an expanded Fire Support Coordination Centre.

**Light Armoured Vehicle (LAV) III.** The LAV III infantry fighting vehicle (IFV) is a true mechanized infantry asset, best fought with tactics based on the cannon capabilities. The day and night accuracy of the cannon, to 2000 metres, is well-known and represents the basic building block for the other four ground dominating weapons in the battle group. **Immediate need:** Continued maintenance and replacement of LAV III's, as well as on-going gunnery training in theatre.

**Snipers.** Although sniper operations are classified, their capabilities to “send a message” to insurgents is obvious. The ability to hit a point man-sized target beyond 1500 metres is well-known in Kandahar province. Snipers represent a small and elite capability, and their proficiency is best expressed in ground-dominating all arms plans, where they can take their place complementing other observation and fire resources. **Immediate need:** The sniper capability should be increased to allow a balanced grouping of one section for any three of the five manoeuvre sub-units in the battle group.

**Dismounted Infantry.** The ground-dominating requirement trumps any debate on light infantry and mechanized infantry mind-sets: both mentalities meet the need in rural areas but in different ways. History provides a good lesson here; in Korea, Canadian infantry dominated ground with day and night patrols. Patrolling is highly effective in Afghanistan, and skilled infantry on their feet, understanding counter-insurgency principles, can act face-to-face with Afghans as point-men for early reconstruction operations and *jirgas*—village council meetings. **Immediate need:** Commanders at all levels should emphasize a wider understanding of the mix of light and mechanized infantry skills which complement each other in remote areas.

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## Conclusions

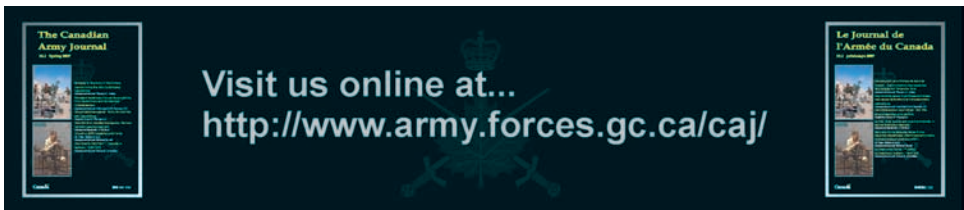
We know that Canadian battle groups in JTFA have obvious capabilities. These superbly trained troops can fight conventional war operations against formed enemy forces, as well as meet the demands of counter-insurgency theory applied in Afghanistan. In my recent visits with two of the battle groups I sensed that the priority for ground domination should be considered as the meeting point between all arms fighting tactics and counter-insurgency theory.

By considering this meeting point between the two ways of thinking, troops as well as journalists can fully understand how the capabilities of this superb instrument can be utilized to ensure an early and successful start to reconstruction, and eventually the recognition by the Afghan people of the advantages of a legitimate national government. Increases may be needed: for example additional snipers should be considered.

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## Endnotes

1. Canadian COIN Manual, B-GL-323-004/FP-003 (FP-004 for French) Sep 05, Draft 2.
2. The bag of capital metaphor is taken from Carlotta Gall and David E. Sanger, "Afghan Politics and NATO Ruffled", *New York Times*, Sunday 13 May 07, 1 and 8.



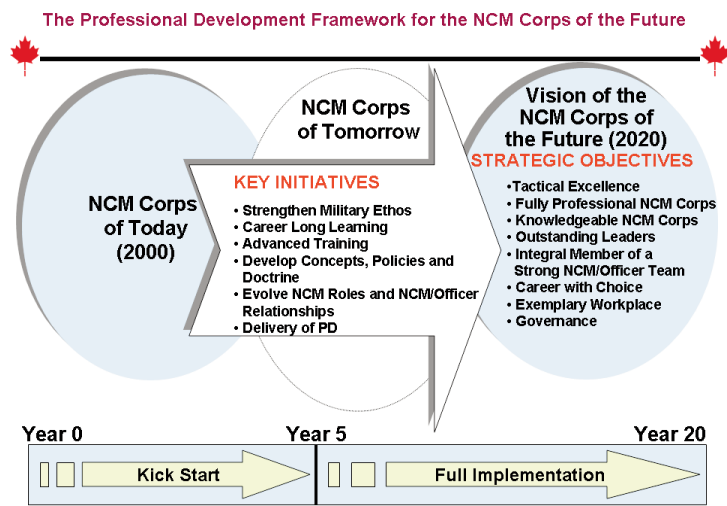
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# CFPAS 2007: FORCE MULTIPLIER?

**Sergeant Daniel Hrycyk CD, ex-infantry and now  
1 CER Maintenance Troop, writes ...**

Currently the Canadian Forces (CF) is having to undergo change to stay in line with global and national trends, especially geo-political, technological and Canadian societal ones.<sup>1</sup> These trends have had a major impact on the CF and the manner in which it plans, operates and views missions. The end of the Cold War also ended its stabilizing effect in the world, thus, emerging societies within nation-states have been disruptive and destabilizing to geo-politics. The world has witnessed advances in technology, specifically computers and satellite communications devices. This “information age” provides a greater amount of information and real time data to be sent and received by individuals or groups. A declining birth rate, aging population and increase in non-Western European immigration consequently means more pluralism influencing Canadian society. To allow the CF to remain current with our changing society, a plan called the Non-Commissioned Members (NCM) Corps 2020<sup>2</sup> was initiated to confront the belief that the existing professional skills and knowledge would not progress at the same rate as compared to the trends affecting the CF NCM by the year 2020. Therefore, the CF has developed and is implementing a plan to meet the future capability needs and this paper will examine briefly this strategy and a potential solution to assist in meeting the needs of the CF through the NCM Corps 2020 plan.

The peak of the NCM hierarchy is the chief warrant officer (CWO), known as the custodian of the NCM corps because of the honed skills sets, experience and profundity possessed by these individuals.<sup>3</sup> One task they provide is inculcating the requirement for a continuous, long term professional development in the NCM corps. This ensures that NCMs are capable of delivering both technical and tactical knowledge with skill sets and ensures their ability to be an integral part of the officer/NCM team. The blueprint to achieve these strategic objectives or “end states” by 2020 is laid out in the NCM Corps 2020 plan and will be achieved through six key initiatives. Some of these initiatives have been aided by the ‘kick start” implementation and will provide the building blocks (**see illustration**). These key initiatives focus on higher levels of learning, development of professional military standards and expansion of opportunities to pursue education. While personal motives to increase academic skills vary, there is a desire by NCMs to participate in these activities. This participation has been enhanced by the intermediate



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leadership qualification course that places more emphasis on written communication, analysis and greater knowledge of the CF's past, present and future.

Unfortunately, as with any other institution, change is resisted by some ossified personnel who enjoy the status quo and who purposely resist change. This resistance may occur for a number of reasons: some may believe they have peaked, some do not have the dedication to their profession, and others may have been caught between the old and new training standards and lack the skills. Perhaps there are even those who have peaked and thus believe change is not required. Nevertheless, this lack of change has a negative impact on the CF and this is increased at senior NCMs levels that are intrinsic in the foundation of the military due to their maturity, experience and knowledge in this complex military environment.

How can the NCM Corps 2020 plan be achieved? Presently, the personnel evaluation report (PER) system<sup>4</sup>, the annual appraisal of CF members, utilizes the same template "report card" for the corporal to the master warrant officer ranks (five rank levels). This assessment is categorized into two areas: performance (at current rank and posting) and potential (for promotion to the next rank). The CWO's evaluation report is categorized into two areas: leadership and potential; however, the classifications used within both assessments are different. This paper proposes a transitional shift synthesizing leadership assessments earlier, which will aid meeting the goals of the NCM Corps 2020 goals. The paucity of CWOs and the actual direct influence this group has with entry level and mid-level junior NCM is limited, especially when compared to the WO and MWO groups who have a stronger, immediate and direct link to peers and subordinates. The change in PER format would occur at the WO/MWO rank and the reasoning behind this is the function and role of the ILQ course. In addition, advanced courses (such as the Army Technical Warrant Officer Course) acknowledge the experience and knowledge at the WO level and use this as a pre-requisite to attend. Finally, even disciplinary proceedings treat those at or above the WO rank in a slightly different manner.

Using the definitions from the CFPAS handbook,<sup>5</sup> the following three leadership assessments were chosen from the CWO format that perhaps should be incorporated to the WO/MWO format. The leadership qualities added are cognitive capacity, creativity, and interpersonal relation. Cognitive capacity is defined as the focusing on, organizing, analyzing and synthesizing information, and exercising judgment. Creativity is implied as the ability to generate innovative, imaginative solutions through non-linear thinking. Interpersonal relation is the ability to interact effectively with individuals, based on respect and an appreciation that people with varying backgrounds and views enrich the organization. In the potential portion of the CFPAS, two qualities that I feel have the propensity for change, thus meeting the NCM Corps 2020 plan, are communication and professional skills. Communication addresses both written and verbal forms with credibility and confidence i.e. openly and effectively. Professional skills are the ability to promote and apply professional skills and ability to work in a multi-environment forum. These areas would actively contribute to the "end states" desired of the NCM Corps 2020 plan. Furthermore, the exposure by WO/MWO to evaluation of these qualities on the PER highlights the importance to this group and illustrates to the subordinates the direction of the NCM corps. This measure would require little if any cost to implement.

One principle of the strategic objectives is the role of professional development and the desire to instill career-long learning. One avenue to increase participation, stimulate and provide feedback to other CF members is a CF wide critical thinking program for WO/MWOs with topics coming from the commanding officers (CO). This would be voluntary and a simple marking method similar to the fitness testing on the PER would recognize the participation. In addition, personnel within the unit/base could access the information to view and utilize this as a resource.

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The skills obtained by the numerous operational tours overseas have enabled critical thinking, negotiation and political awareness. This experience aids the senior NCM to teach and develop junior officers.<sup>6</sup> The desire for more intellectual stimuli is prevalent and in a recent article by Major Strickland, who acknowledges limited participation by officers in writing and submitting articles for Canadian military journals, he suggests that an individual should demonstrate attempts to contribute to the advancement of the military profession to earn promotion.<sup>7</sup> Likewise, for the NCM corps, this demand would harvest the experience and knowledge of a WO/MWO, assist in the NCM/officer relationship and provide a feed back method to COs. This enabler recognizes the efforts of those who wish to reach the strategic goals of NCM Corps 2020. Currently, the US military is also going through a similar evolutionary process and a recent study concerning professional development concluded that subordinates felt that there was a "[L]ack of value: self development does not receive effort, emphasis, importance and support from leaders."<sup>8</sup> If CF members share similar thoughts, change must be made to inculcate professional development. Junior members reading articles written by WO/MWOs would be given an opportunity to discuss points of view, pros and cons. The effort to write such an article would expand the understanding of the work required and knowledge gained by those pursuing academic courses. This would acculturate junior members to the NCM Corps 2020 goals. While it is widely recognized that CWOs are the custodian of the NCM Corps, this should not deter WO/MWO an opportunity to pursue, provide and seek professionalism. Potentially, the biggest threat is mediocrity and a failure to acquiesce to the proposed direction in enhancing the NCM professionalism. We are currently a decade and a half to the "end state"; change is evident and the NCM corps is reminiscent to low hanging fruit that can easily be picked. A major key to all of this is for senior personnel to facilitate and encourage these institutional changes.

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## Endnotes

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2. *NCM Corps*, Pg 27.
3. *NCM Corps*, Pg 45.
4. Department of National Defence. *Canadian Forces Personnel Appraisal System 2005*.
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8. United States Army, *The Army Training and Leader Development Panel Report (NCO)*, Final Report. 2 April 2002.



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## DECEPTION—CAN INFORMATION SUPERIORITY BE ACHIEVED WITH OR WITHOUT IT?

**Mr. John M. Roach, CD, MA, J5 Info Ops OPSEC Officer  
with Canadian Expeditionary Force Command in Ottawa, writes ...**

“To achieve victory we must as far as possible make the enemy blind and deaf by sealing his eyes and ears, and drive his commanders to distraction by creating confusion in their minds.”

**Mao Tse-Tung, *On Protracted War*, 1938**

Technological innovation and the capacity to manipulate information for specific battlefield effects have become essential to waging modern warfare and underlie themes related to information superiority. However, achieving information superiority will be difficult, if not impossible, due to a great number of issues, not the least of which will be an adversary's ability, or ours for that matter, to successfully employ denial and deception (D&D) capabilities.<sup>1</sup>

The nature of deception is to cause another to believe what is not true with the intent to influence their behavior. At face value, deception can be considered quite immoral and socially improper within many cultures. However, the use of deception as a warfighting practice, other than perfidy and treachery, has been the exception to social norms and dates back as early as Sun Tzu, who stated in the *Art of War*, “[All] war is based on deception.”<sup>2</sup> In short, the nature of deception, void of any moral or ethical judgment, operates with two criteria. First it is intentional. Second, it is designed to gain an advantage for the practitioner.<sup>3</sup> Applied to military operations, deception creates two effects within the battle space, those being security and surprise, and is among the least expensive military activities in terms of forces and assets to achieve these effects.<sup>4</sup>

Deception admittedly played only an informal part on the battlefield throughout history, confined mostly at the tactical and more rarely at the operational level until the twentieth century when it was doctrinally embraced and thrust further up to the strategic level. The adaptation of D&D in Western military strategic thought during the twentieth century parallels the growth in the importance of intelligence to national security during the same period. As detection and monitoring systems underwent vast improvements, coupled with the explosion in information technology, it reinforced the need for D&D capabilities.

Recent US Air Force doctrine (2005) discusses “influence operations” as one of the four major components of the information environment which includes psychological operations, military deception, operations security, counter-intelligence, public affairs and counter-propaganda. All of these concepts have the same aim, that is, to influence the mind and behavior of the adversary. To practice any of these would require coordination of D&D to some greater or lesser degree.

Deception used as a broad, general term includes the elements of both denial and deception, each having distinct actions that are either active or passive. Active deception involves providing an adversary with evidence of intentions and capabilities you do not in fact possess. In other words, you show an adversary something that is not real.<sup>5</sup> Denial, or passive deception, on the other hand, is designed to hide real intentions or something that really exists. A unique aspect of the relationship between denial and deception is that denial does not need to involve or incorporate active deception to be successful. However, deception must include passive deception to hide reality while developing a false picture for the adversary.

Drawing from American joint doctrine, in the absence of similar Canadian or NATO doctrine, military deception (MILDEC) is defined as actions executed to deliberately

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mislead adversary military decision makers as to friendly military capabilities, intentions, and operations, thereby causing the adversary to take specific actions (or inactions) that will contribute to the accomplishment of the friendly mission.<sup>6</sup> Operations security (OPSEC), a form of passive deception, is defined as a process of identifying critical information and subsequently analyzing friendly actions attendant to military operations and other activities to:

- (a) identify those actions that can be observed by adversary intelligence systems;
- (b) determine what indicators hostile intelligence systems might obtain that could be interpreted or pieced together to derive critical information in time to be useful to adversaries; and
- (c) select and execute measures that eliminate or reduce to an acceptable level the vulnerabilities of friendly actions to adversary exploitation.<sup>7</sup>

Deception at the strategic level is planned and executed by national, alliance or coalitional level authorities, both in peace and war, encompassing measures from political, diplomatic and informational.<sup>8</sup> The assumption that must be made with regard to alliance or coalitional military operations is that deception would be limited to denial to avoid any political or social sensitivity associated with active deception techniques. At the operational level, deception pertains to military actions and measures to deceive an enemy as to time, place and details of planned major operations conducted as part of a campaign or major joint or combined operations with a strategic objective.<sup>9</sup> Tactical deception is intended to mislead opposing tactical commanders in terms of time, space, capabilities and intentions of tactical actions.

The adversary decision-maker is always the target of deception whether OPSEC or MILDEC. To reach them, vulnerabilities in the adversary intelligence process must be exploited. Historically, a majority of intelligence analysts receive little training in foreign deception techniques, impeding their ability to detect foreign D&D operations.<sup>10</sup> Even if an analyst does consider foreign D&D to be in play, the tendency is to explain or discount their own cognitive dissonance in a form of self-denial as a result of not fully understanding the role culture plays in D&D operations. Denial is aimed at the collection phase of the intelligence cycle, denying the intelligence analyst key bits of information on which to base assessments. Deception is aimed at the processing phase of the intelligence cycle, relying on denial to cover reality, while false or misleading information is directed at the analyst, which will elicit an improper assessment from the analyst that will support friendly forces intentions.

Other perspectives on D&D include *maskirovka*, a concept developed in the former Soviet Union. *Maskirovka* is considered a set of processes employed during the Soviet era designed to mislead, confuse and interfere with anyone accurately assessing its plans objectives, strengths and weaknesses. Denial and deception were not treated as separate activities. The Soviet concept included, but was not limited to, deception, disinformation, secrecy and security.<sup>11</sup> *Maskirovka* was to contribute to the achievement of surprise for the actions of forces, the preservation of combat readiness and the increased survivability of objectives.<sup>12</sup> Highlighting the cultural undertones associated with *maskirovka*, "The Soviet experience imparted a culture of deceit...particularly on the military. Lying routinely occurs at the most senior uniformed levels, even when an argument is clearly untenable or contradicted by obvious facts."<sup>13</sup>

Akin to western military doctrine, theological doctrines often turn operational within the Islamic school of thought, for example as in the interpretation and utilization of *taqiyya* (pronounced tark-e-ya) and *kitman* from the Qur'an. Early Muslim warriors believed their very manhood rested on chivalrous, generous, hospitable and consistently honourable behaviour.<sup>14</sup> Like other warrior codes of honour, D&D was viewed as an

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unacceptable way of fighting. However, in al-Bukhari, Chapter 73, hadith No. 1298, Muhammad said, "Verily, war is deception."<sup>15</sup> Muslim scholars would debate the use of dissimulation and concluded that deception was sanctioned to win wars but should not operate in daily social life.<sup>16</sup>

The Islamic tradition of *taqiyya* originated in the sixth-century A.D. following disputes over succession after the Prophet Mohammed's death. The minority Shi'ite developed *taqiyya* to conceal true beliefs from the Sunni majority and to maintain operations security for jihad operations.<sup>17</sup> *Taqiyya* is a form of deception intended to cover true feelings. It is lying with the tongue only and not the heart. As such, *taqiyya* can equate to active deception techniques. Passive Islamic deception would be *kitman*. *Kitman* comes from the word *katama*, which means, to hide or conceal. It is important to realize that it is a form of trust. *Kitman* is concealing or keeping parts of the whole truth secret. "Kitman may extend to cover the secrets of the whole state at the time of war and peace where a person who is loyal to his people can not divulge to anyone or tell the enemy about his countries affairs."<sup>18</sup> The concept of *kitman* is not unlike the western security concept of the need-to-know principle.

Countering D&D begins with understanding that anyone can be denied or deceived and while we may find the idea of deception distasteful, there are varying degrees of its acceptance within different cultures and religions, not least of which is the legal use of ruses within the Geneva Conventions. Once we have accepted the fact that we can be deceived, Major Brian Cyr, USMC, author of *Foreign Denial and Deception: Minimizing the Impact to Operational Intelligence*, advocates three lines of operation in developing a counter-deception capability.<sup>19</sup> The first line of operation is training and awareness, noting that while most military institutions address operational deception and planning, few touch upon foreign OPSEC aspects of deception. His second line of operation suggests an all-source collection and analysis approach. "It is through a variety of channels or collection means, that the J2 increases his ability to detect incongruities in an opponent's D&D cover story. A major reason for this is that the enemy might not have been consistent in portraying his cover story among all channels of information available to him."<sup>20</sup> Finally, it is important that human factors are not ignored. Operators and intelligence analysts must be able to know the adversary and think like them. In order to do this they must be open to evidence that does not fit their own preconceptions and biases.<sup>21</sup> In other words, we have to become more culturally aware of others and how they see the world both through secular and religious lenses to identify foreign D&D.

Despite continuing revolutions in military affairs, modernization, digitalization, transformation or any other evolutionary processes, there are a few things that have remained constant within warfare. Lying is one of them. Denial and deception have centuries old culturally diverse historical roots tied to the principles of warfighting. As methods of information collection have improved, become user friendly and ubiquitous, D&D has not disappeared; rather it has grown in importance and something that requires more attention. Focusing on a national D&D capability is just a starting point. There will be bigger challenges in how to conduct D&D within alliances like NATO or organizations like the United Nations.

In the end, deception in warfare is about limiting access to the whole truth or altering the truth completely and being able change behavior because of it. No matter how sophisticated modern warfare will be, deception will continue to have a place in it. The inability of technologically advanced nations to completely negate the effects of deception, which are often cheap and cost effective, makes deception an effective part of asymmetrical strategies. If information superiority is a key component of future military strategies, then the ability to employ and detect deception will play a large role in its attainment or prevention.

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## Endnotes

1. Lasley, Jennifer. *Denial and Deception: A serious threat to Information Superiority*. National Defence University, 19 April 2000. Pg. 2
2. Perfidy was part of the customary laws of war long before the prohibition of perfidy was included in 1977 Protocol I Additional to the Geneva Conventions of 12 August 1949
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4. Vego, Milan. "Operational Deception in the Information Age." *Joint Forces Quarterly*, Spring 2002, pg. 60
5. Cadell, pg. 6
6. While the CF Land Forces Information Operations publication series includes doctrine on deception, it is limited to tactical deception and is drawn largely from US Army Doctrine. Canada does not have doctrine on OPSEC.
7. US DoD. JP-3-13—*Joint Doctrine for Operations Security*, 2006.
8. Vego, pg. 62.
9. Ibid
10. Lasley, pg. 6
11. Shea, Tim, LCol. "Post-Soviet Maskirovka, Cold War Nostalgia and Peacetime Engagement." *Military Review*, May-June 2002, pg.63
12. Yefrimov YA and Chermashentsev, "Maskirovka." *Soviet Military Encyclopedia*, Vol 5, Moscow, Voenizdat, 1978, pg. 175-177
13. Shea, pg. 64
14. Youssef, H. Aboul-Enein, Zuhur, Sherifa. "Islamic Rulings on Warfare." *US Army War College*. October 2004. Pg. 25
15. Ibid
16. Ibid
17. Campbell, Andrew. "Taqiyya: How Islamic extremists deceive the West." *National Observer*, 22 Dec 2005.
18. Ahmad Sa'd, Islam Online.net. "The Islamic perspective of Concealing," 06 Nov 2003. <http://www.islamonline.net>
19. Cyr, Brian Maj. USMC. "Foreign Denial and Deception: Minimizing the Impact to Operational Intelligence." *Naval War College*, February 2002.
20. Ibid, pg. 10
21. Ibid, pg.12