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Armour Bulletin



DOCTRINE

Canada



Armour Bulletin

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EDITOR IN CHIEF
Lieutenant-Colonel J.W.G. Rousseau

MANAGING EDITOR
Major L.J. Zaporzan

EDITOR
Captain A.S. Finney

DESIGN AND LAYOUT
CFSU(O) CS

Author's Guide

The Armour Bulletin, as a forum for debate and discussion, welcomes the submission of articles of a technical, tactical or historical nature.

The following guidelines apply:

- it would be appreciated if all articles could be typewritten on 8-1/2 x 11 paper, double spaced on one side and be accompanied by a 3.5 inch disk copy; (in WP 5.0/1/2);
- articles should not exceed 2,000 words (much smaller articles are also welcome, ie, a page or two);
- black and white photographs and illustrations should accompany the article. Photographs cut out of magazines are not acceptable as they are an infringement of copyright laws. Photographs and or illustrations add to the possibility of publishing;
- only material of an unclassified nature should be submitted;
- authors should include a very brief description of their current position, location and photo.

The Editor reserves the right to reject and to edit articles or letters submitted for publication. Authors should not submit articles which have either already been submitted for consideration to another publication or have already been published.

Postal Address: Editor Armour Bulletin
CTC Gagetown
PO Box 17000 Stn Forces
Oromocto, New Brunswick
E2V 4J5

Telephone: CSN 432-2000 Ext 3963
Internet address: "rcacsc_gagetown@brunswickmicro.com" or
"ac_qm_gagetown@brunswickmicro.nb.ca"

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About the Cover:

Current Armour doctrine is a logical extension of our cavalry past, then, as now, using manoeuvre to decisively defeat the enemy.

Next topic and issue submission deadline:

Due to budgetary constraints the next issue of the Armour Bulletin may not be completed. As of 1999 the Armour Bulletin may cease to be published in its current format or altogether. In anticipation of another issue the next topic and issue submission deadline will be

Topic: *The Regimental System*

Vol. 31 no. 2 1 October 1998



Colonel Commandant's Foreword



The Vol. 30 No. 1, 1997 Armour Bulletin issue of Total Force revealed a wide variety of interpretations of what it means. Upon re-reading the articles and pulling out the common threads of understanding it became clear that the most often repeated comments were the need to further integrate the Regulars and Reservists. This would develop a better state of trust and respect, provide the Militia with adequate equipment and have Regulars accept a greater responsibility for "their Militia".

Some of the expressions are understood but not always followed through by staff orientation of policy and action. The formalization of "Le Partenariat" in Secteur Québec Forces Terrestres (SQFT) has focused their previous "cooperation" between Regular and the Militia units. This partnership warrants being reviewed for pertinent applications in other areas.

The focus of Army doctrine has changed. In order to remain interoperable with our allies, the time has come to realign our doctrinal tenets with theirs. To this end, in the summer of 1996, the Directorate of Army Doctrine was established as an element of the Land Staff at the Canadian Land Forces Command and Staff College (CLFCSC). Without a doubt the establishment of a discrete Doctrine Cell within the Army Staff was long overdue and the tasks were many. From the beginning, the Director of Army Doctrine (DAD), Col R.S. Wlasichuk, was placed in a position to coordinate his fight of the *Rear, Close and Deep Battles* in the context of updating old, establishing current and looking forward to a new doctrine. One factor common to this *Tactical Organization*

of the *Battlefield* was the concept of *Manoeuvre Warfare Theory*. As you will note in this edition of the *Bulletin*, the article provided by DAD presents this concept not as **new doctrine**, but rather as **new emphasis** on established tenets.

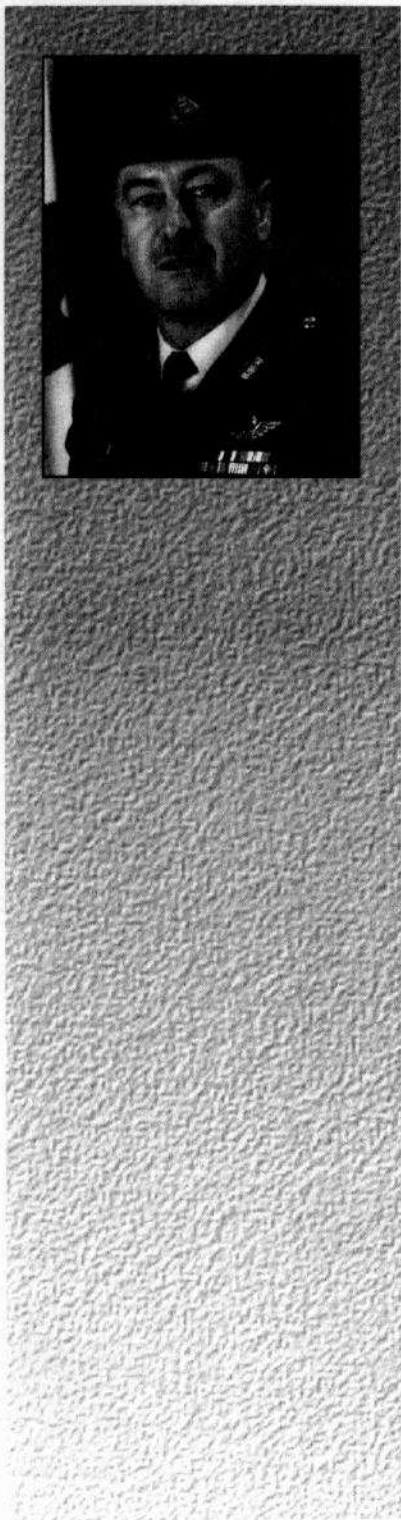
As with anything new within the Army, there is often much debate in the absence of the facts. This has been the case with the introduction of *Manoeuvre Warfare*. It was with this in mind that DAD established, as a priority, the education process to the Army of current developments in our doctrine. In this light, the *Bulletin* facilitates the process. I feel that this article should be reviewed with four things in mind: First, *Manoeuvre Theory IS CURRENT Army Doctrine* and provides the means by which we remain interoperable with our allies. Second, *Manoeuvre Theory* encourages us all to **THINK AND ACT**, maintaining the old adage that good ideas are **NOT** necessarily the "purview of the senior man present". Third, inherent in the licence to **THINK AND ACT**, is the element of **RISK**. With the **ACCEPTANCE OF RISK** is the **ACCEPTANCE OF RESPONSIBILITY** associated with the outcome – good or bad. Fourth and last, this excerpt serves as a primer to read and consider. It is meant to encourage active interest in army doctrine development in order that we understand from whence the tactics, techniques and procedures we use come. Moreover, active interest will ensure that informed debate may replace ignorant argument over the lifeblood of our profession – sound doctrine.

Worthy!

Major-General J.P. Robert LaRose
Colonel Commandant



Director of Armour's – Foreword



In keeping with the recent trend of having each edition of the *Armour Bulletin* focus on a topical theme, the School's decision to dedicate an issue to Doctrine is extremely appropriate. As the Army continues to evolve as a result of fiscal constraints, downsizing, re-engineering, equipment rationalization and modernization, we must be prepared to examine the impact on our doctrine. But what is doctrine? Our keystone document, *CFP 300 Canada's Army* defines doctrine as follows: the formal expression of military knowledge and thought that the army accepts as being relevant at a given time, which covers the nature of conflict, the preparation of the army for conflicts and the method of engaging in them to achieve success. The purpose of doctrine is to impart knowledge and provide authoritative guidance for the organization of armed forces and the conduct of operations as part of the military art. The key point to note from this definition is that doctrine is not set in concrete, it is dynamic and evolutionary. What was necessary and effective to prepare an army for war in the 90's will probably not work in the next millennium.

In October, Major-General N.B. Jeffries MSC, CD, the Assistant Chief of the Land Staff, gave a presentation entitled *The Army at the Crossroads* to the RCAC Association (Cavalry) Annual General Meeting. He highlighted the change initiatives that have occurred since the 94 White Paper and how these initiatives have forced us to look radically at the way we conduct business. Our transition from a central European focussed, forward-deployed force to one that is Canada based with a more global focus is now complete. But, has our doctrine evolved logically and in tandem with this paradigm shift? Does our doctrine still cater primarily for a high intensity mechanized conflict in the Fulda Gap while our equipment and force structure are leading us toward the other end of the spectrum of conflict? The need for a solid understanding and acceptance of doctrine has never been more important.

The Army is in a state of technological transition as it begins to field new, modern equipment such as the Coyote, LAV 3, TCCCS and LFCS. Our focus is now on "information" warfare and the integration of more



technologically sophisticated equipment is going to present us with major challenges. The first step in meeting these challenges was to rationalize our equipment levels because they had fallen out of sync with our manning levels. New doctrinal structures must be developed and approved. Units need to be structured and equipped in order to maintain required readiness states and to train in accordance

with doctrine. There is still much analysis to be done as we wrestle with how best to employ our new equipment in a synergistic manner.

We are all well aware of the rapid tempo of technological change and if we are to keep pace and maximize equipment and manpower potential, our doctrine has to evolve in concert. Understanding our doctrine and contributing

to its continued development is the responsibility of all of us in the profession of arms. I look forward to reading the articles in this edition and the subsequent feedback that they should generate.

Worthy!
Colonel W.J. Fulton
Director of Armour





Editor-in-Chief's Foreword



Dear Readers

With the introduction of new equipment in the Corps inventory, and the advent of manoeuvre warfare theories, the editing staff of the *Armour Bulletin* (AB) agreed that "Doctrine" as a theme for this issue would certainly be appropriate and timely. Surely most of us, at some point in our careers, have pondered the following questions: Is our doctrine in sync with emerging technologies? Is the Army tailoring its doctrine to the realities of modern warfare or simply reacting to support CF's new purchases and shrinking budgets? Does there exist a dichotomy with regards to fielding new equipment and doctrine? These and several other questions will certainly be addressed in this issue.

Moreover, the articles in this edition will help us better understand the importance of revisiting the tenets of the "combat development process" as well as give us a greater appreciation of doctrinal issues which are affecting our Corps.

In this edition, I have invited as our "keynote writer", Colonel Ray Wlasichuk, Director of Army Doctrine (DAD). On his behalf, Major P.M. Bartlett, a member of the DAD staff, has prepared an excellent paper to introduce the topic. Sit back and enjoy the readings!

As always, I invite everyone to use the "Turret Talk (TT)" column to voice any thoughts and/or concerns. Furthermore, you may wish to participate in our next edition which will focus on "The Regimental System". As an appetizer for this theme, I invite you to read Major Larry Zaporzan's (Chief Instructor Armour School) letter in this issue's TT.

In closing, I would like on your behalf to thank all the authors who provided us great reading enjoyment in the last issue of AB which focused on the "Total Force".

Lieutenant-Colonel J.W.G.
Rousseau

Editor-In-Chief
Commandant Armour School



Keynote Address

Manoeuvre Warfare Theory: A New Emphasis in Canadian Army Doctrine



P.M. Bartlett, CD
Major
Director of Army Doctrine 402
(Manoeuvre)

“The battlefield becomes more chaotic and the intent of Manoeuvre Theory is to provide the tools with which we can “control” the chaos.”

The following article consists mainly of an excerpt from the **Canadian Forces Publication (CFP 300-2 Land Force Tactical Doctrine**. Published under the authority of the Director of Army Doctrine (DAD), CFP 300-2 replaced **CFP 301-1, Land Formations in Battle** Vol. 2 as the Canadian Army’s keystone tactical doctrine manual. As such it is subordinate to **CFP 300 Canada’s Army** and **CFP 300-1, Conduct of Land Operations** and should be read in concert with those publications.

The section, Manoeuvre Warfare Theory, may be found in CFP 300-2, Chapter 1. Although all doctrine is the result of “co-authorship” and accredited to no one specific person, it must be mentioned here that the manoeuvre tenets provided in CFP 300-2 are directly attributable to LCol C.S. Oliviero, the current A/DComdt of CLFCSC. When approached to provide an article on **Manoeuvre Theory** to the *Armour Bulletin*, I saw an opportunity to accomplish three tasks at once. First, promote exposure to current doctrine beyond the short verbal presentation (of which there have been many lately). Second, make good use of material already written,

on which those verbal presentations are based. Third, as the “project manager” for the publication of CFP 300-2 thank LCol Oliviero for his most valuable input. Having said all of that, I must emphasize that the comments in both the introduction and conclusion are mine and if the reader determines that these are critical vulnerability, then I am the target, not LCol Oliviero.

INTRODUCTION

“It’s all just **common sense**”.

“That’s the way we’ve **always done it**”.

“This isn’t new, read **Sun Tzu!**”

“Oh yeah, sure in the end, the **General** will decide anyway”.

These are just a few of the comments made to me on the subject of *Manoeuvre Theory* during my tenure as the custodian and “officer-in-charge of marketing” of **CFP 300-2, Land Force Tactical Doctrine**. One finds out quickly that outside the secure walls of the “Army’s Brain Trust” at Fort Frontenac, there lurks a tough audience when it comes to presenting the ever stimulating subject of doctrine. So there are two options: One, don’t go outside, or two, have the answers to those difficult questions and rebuke those barbs. Having strongly considered



option one, I decided the risk was worth taking option two – after all if one is going to promote the methodology of risk taking, then one best “walk the talk” to so speak. Moreover, the answers and rebukes are not difficult, as the tenets of *Manoeuvre Theory* provide the basis for these answers:

Common sense may not always lead to the right decision though it may provide the most predictable one;

That may be the way **you’ve always** done it, but historically, it’s not the way **we’ve always** done it, otherwise we wouldn’t need to shift our emphasis;

Yes, I’ve read **Sun Tzu** (see the opening quote to CFP 300-2, Chapter One), now we need to practise what we’ve read, by first emphasizing it in our doctrine;

Sure the **General** may decide, but why not influence the decision, or better yet set the conditions so that he doesn’t need to.

As a staunch advocate of our revised doctrine, I would recommend that the reader consider the following excerpt from CFP 300-2 as a review of the past, a study of the present and a glimpse into the future of where Canadian Army doctrine, was, is and is headed. Moreover, as a fledgling doctrine writer I have learned quickly that informed debate at all levels can have a profound impact on how we as soldiers choose to do our business (the reference to Sun Tzu was made to me by a young Engineer Corporal!), and therefore I also recommend that the reader go

beyond this article and study doctrine further. In this manner, the barbs may be replaced by constructive commentary and the scepticism by optimism.

MANOEUVRE WARFARE THEORY

General. The Canadian Army, after almost a decade of debate, has adopted manoeuvre warfare as doctrine. For some, this change may mean a new way to look at how the army fights. For others, this new doctrine may involve only the minor re-thinking of how they perceive warfare in its varied dimensions. Most importantly, everyone will have to appreciate that this new doctrine means change. How much change will depend upon the individual and the circumstances.

Historically, war fighting in the Canadian Army has tended towards attrition warfare. There were many good reasons for the domination of this style of warfare. Our history, tradition and our structures all led us in this direction. This is not to say that our doctrine was bad, only that new doctrine has improved on the past.

The new doctrine is described in CFP 300-1, and is defined as a war fighting philosophy that seeks to defeat the enemy by shattering his moral and physical cohesion, his ability to fight as an effective coordinated whole, rather than destroying him by incremental attrition.

The Concept. Manoeuvre Warfare is a concept that concerns itself primarily with attacking the enemy’s critical vulnerability. The key to understanding what this concept

entails is to realize that the defeat of an enemy need not always mean physical destruction. From time to time this may, of course, be necessary, but physical destruction of the enemy should not be the primary aim of the commander. Rather, his aim should be to defeat the enemy by bringing about the systematic destruction of the enemy’s ability to react to changing situations, destruction of his combat cohesion and, most important, destruction of his will to fight.

That is not to say that attrition will never be used. At times, attrition may not only be unavoidable, it may seem desirable. It will depend upon the commander’s intent for the battle. Some may argue that the Canadian Army has practised manoeuvre warfare theory for years. This is not true. Traditionally, we have taught and practised: “advance-stop-defend-stop-withdraw-stop-counter-attack-stop-defend”. Our tactics have been based on securing and holding ground while the enemy is worn way. This is the foundation of attrition warfare.

In manoeuvre warfare, far less emphasis is placed on the securing of ground, thus forcing commanders at all levels to think of how to render the enemy incapable of fighting while minimizing friendly casualties. The command philosophy required to be successful in applying manoeuvre warfare is documented in CFP 300-1 Chapter 3. It can be best summed up as “trust leadership”. Commander’s at all levels have to be able to issue mission orders along with their intent and then allow their subordinates to get on with their tasks. This is the most



difficult aspect to achieve since it is inherent to the nature of the military to over-control its subordinates, and with modern information and communication facilities, it is becoming increasingly easy to do so.

The concept of manoeuvre warfare must not be confused with manoeuvre which as defined in chapter 2, is the *employment of forces through movement in combination with speed, firepower, or fire potential, to achieve a position of advantage in respect to the enemy in order to achieve the mission.*

Manoeuvre warfare is a mind set. There are no checklists or tactical manuals that offer a prescribed formula on how to employ manoeuvre warfare. Leaders at all levels must first understand what is required to accomplish a superior's mission and then do their utmost to work within the parameters set out for that mission.

The Fundamentals. As stated there is no prescribed formula for manoeuvre warfare, however, the following ten fundamentals are offered as guidance:¹

Focus. Focus on the enemy's vulnerabilities and not on the ground. The purist application of manoeuvre warfare is to disarm or neutralize an enemy before the fight. This requires commanders to rethink their mission statements, instead of issuing orders such as: "To hold objective BRAVO". The better mission would be: "Deny enemy access to objective BRAVO". The focus is on the enemy instead of the ground. How the commander accomplishes this mission is left up to him.

Mission Type Orders. This involves decentralising decision making and letting decisions be taken at the lowest possible level. It is essential that commanders know and fully understand their commanders' intent two levels up. Subordinates must understand what is on their commander's mind, his vision of the battlefield and what end state is desired. Mission orders allow commanders, at all levels, to react to situations and to capitalize on them as they arise. The commander directs and controls his operation through clear intent and tasks rather than detailed supervision and control measures or restrictions.

Agility-acting quicker than the enemy can react. Agility enables us to seize the initiative and dictate the course of operations. Eventually, the enemy is overcome by events and his cohesion and ability to influence the situation are destroyed. Agility is the ability of the commander to change the mission or the positioning of his forces between engagements faster than the enemy can anticipate. Quickness is the key to agility. Commanders are quick to make decisions and to take advantage of the new situations. Units must be able to respond with sufficient quickness to exploit the change of direction. Getting inside the enemy's decision cycle is the essence of tempo. Well rehearsed battle drills and standard operating procedure enhance the agility of a formation.

Avoid Enemy Strength, Attack Weakness. Simply put, do not attack where an enemy is strong. Look for weaknesses and attack them, whether they are physical or moral.

Support Manoeuvre With Fire. Fire support complements the tactics of manoeuvre warfare; it does not supplant them. A few rounds that are immediately available may be worth more than a heavy weight of fire hours later. The selective concentration of fire support in a focused, violent attack adds to shock and dislocation.

Focus of Main Effort. Main Effort focuses combat power and resources on the vital element of the plan and allows subordinates to make decisions which will support the commander's intent without constantly seeking advice. This way, the commander is successful in achieving his goal and each subordinate ensures his actions support the main effort. It is the focus of all, generally expressed in terms of a particular friendly unit. While each unit is granted the freedom to operate independently, everyone serves the ultimate goal, which unifies their efforts.

Exploit Tactical Opportunities. Commanders continually assess the situation (mission analysis) and then have the necessary freedom of action to be able to react to changes more quickly than the enemy. Rigid control measures that are unchangeable and unlikely to survive first contact are avoided. Reserves are created, correctly positioned and grouped to exploit situations which have been created by shaping the battle to conform to friendly concepts of operations. Reserves must not be created to plug gaps or bolster failure; this hands the initiative to the enemy.



Act Boldly and Decisively.

Commanders at all levels are able to deal with uncertainty and act with audacity, initiative and inventiveness in order to seize fleeting opportunities within their higher commanders' intent. They not only accept confusion and disorder, they generate it. Failure to make a decision surrenders the initiative to the enemy. Risk is calculated, understood and accepted.

Avoid Set Rules and Patterns. Each situation requires a unique solution. Commanders are imaginative and do not allow the enemy to predict his tactics.

Command From the Front.


Commanders place themselves where they can influence the main effort.

Summary. The adaptation of manoeuvre warfare requires commanders at all levels to be comfortable with mission analysis, commanders' intent, mission orders and the understanding that defeating the enemy does not necessarily mean the destruction

of all his troops. Manoeuvre warfare does not replace attrition warfare. However, the emphasis in all future conflict must not be on attrition. Most important, manoeuvre warfare is an attitude of mind; commanders think and react faster than their foes in order to mass friendly strengths against enemy weaknesses to attack his vulnerabilities be they moral or physical.

CONCLUSION

There is no template associated with the application of *Manoeuvre Theory*. This makes some uncomfortable in that a non-linear approach, whereby freedom of action is encouraged, seems to create a larger margin for error. This may be true, but a decision made at the right place and time can set the conditions for faster and less expensive (in terms of casualties) success. The battlefield becomes more chaotic and the intent of *Manoeuvre Theory* is to provide the tools with which we can "control" the chaos. That is to say the enemy becomes reactive to the consequences of our decisions rather than the other way

around. Simply put, the enemy should be forced to make one long decision in reaction to our many, therefore always acting many steps behind. *Manoeuvre Theory* involves risk. The acceptance of risk must be acknowledged by all participants within the decision making process. Together with acceptance of risk comes the acceptance of responsibility for taking risk - this implies trust between subordinate and superior and superior and subordinate - it's a two-way street. This last point would appear to be the highest hurdle to conquer within the Army if we are to embrace our new doctrine and fully exploit its potential. 

Footnotes

1. The ten fundamentals were developed from: William S. Lind, *Maneuver Warfare Handbook*, Boulder CO; Westview Press, 1985; CLFCSC SC 2900-1, 17 Dec 1992, *Whither Canadian Military Doctrine: Manoeuvre Warfare*; and Monograph by CGS of New Zealand Army, 1994, NZ P 12 Doctrine.





Keep the Sabre Sharp: Lessons for the RCAC in the Post-Cold War World

Sean M. Maloney



*Sean Maloney is a Canadian military historian specializing in the Cold War and post-Cold War periods. He served in Germany as 4 CMBG's historian and is the author of the history of that formation, *War Without Battles: Canada's NATO Brigade in Germany, 1951-1993*. He is currently working on a history of the Canadian Army and UNPROFOR.*

"The RCAC can only adapt so far with what it has."

The post-Cold War period has generated a degree of uncertainty unmatched in the past fifty years. This uncertainty has permeated all aspects of strategic policy making and its implementation, not only around the world but particularly in Canada. Many pundits inside and outside of the policy making community continually question the need for heavy armoured and mechanized forces in the so-called 'new security environment'.¹ This has produced a certain amount of uncertainty regarding the future role, equipment, and even the existence of the Royal Canadian Armoured Corps.

The motto of the *Royal Tank Regiment* is 'Fear Naught'. We should take our British relations motto to heart. Since the Second World War, there have

been many attempts to deny the utility of the balanced, all-arms fighting team in the face of new developments in warfare. The RCAC met each of these challenges, continued to demonstrate that armour was vital to success on the battlefield, and that tanks are still needed in the operational environments that Canada may be involved with now and in the future. This article will present a number of cases highlighting these points.

1. NUCLEAR WEAPONS

The first challenge the RCAC had to face was posed by the existence of nuclear weapons. Nuclear Weapons, many felt, spelled the end of conventional land warfare which would be replaced by 'push-button' warfare between missiles, submarines, and bomber aircraft controlled from dispersed underground bunkers. Proponents of this perspective tried

to impose it on NATO in the 1950s. They wanted a 'trip wire' constabulary force which, if attacked by the Soviets, would trigger strategic nuclear war. This, they felt, was the best deterrent to war. NATO military planners, including Canadians serving with our Brigade Group in Germany (successively 27 CIBG, 1 CIBG, 2 CIBG and then 4 CIBG in the 1950s) did not agree. Nuclear weapons were destructive, there was no doubt. However, dispersion, the proper use of ground, and other protective measures, coupled with flexibility and the mobility of armoured formations, could limit immediate damage. Our forces stationed in Germany in the 1950s, particularly the RCAC regiments rotating through there, developed these innovative techniques on exercise after exercise. Some Canadians even travelled to the American nuclear test facility in Nevada and the British sites in Australia to determine the validity of the new operational principles in the face of live nuclear weapons tests.²

The culmination of these efforts helped NATO planners make a strong case for retaining conventional forces in the European deterrent system. What if the Soviets attacked NATO with a small conventional force for limited objectives, like the Berlin access routes or in Norway? Should NATO respond with thermonuclear weapons? Advocates of the 'trip wire' said yes. Other more level-headed planners said no. Conventional



armoured and mechanized forces existed to identify and stabilize the situation to prevent precipitous nuclear use in a crisis situation. 27 CIBG and its successors, which included at one time or another the entire 1950s/1960s RCAC order of battle (RCD, 8CH, FGH, and LdSH(RC)), were all a part of this effort by demonstrating that conventional forces could survive in a nuclear attack and that they had utility in operations short of nuclear war. Canadian efforts in this area were so successful that SACEUR, General Lauris Norstad, wanted to convert the entire Canadian Brigade Group into an airmobile formation to act as a 'fire brigade' in the Central Region (this was the genesis of the ACE Mobile Force (Land) but this project was not undertaken by Canada in part due to cost.³ This contributed to some extent to the second challenge.

2. AIRMOBILITY AND ADVANCED ANTI-TANK WEAPONS

The second challenge was posed by a combination of two more technological developments. The first was the introduction of airmobility onto the battlefield and the second was the introduction of second-generation ATGMs. There was a great deal of enthusiasm for helicopter warfare in the 1960s. Many theorists went so far to argue that the tank would be replaced by the helicopter. Versatile machines, transport, recce and attack helicopters were used by the French in Algeria, by the British in Malaysia, and by the Americans in Vietnam. The Americans went even further and created airmobile divisions which linked transport and attack

helicopters with light infantry and air-portable artillery. Designed to fight on a nuclear battlefield or in a Low Intensity Conflict (LIC) situation, these flexible formations were compelling and dramatic developments.⁴

The Canadian Army was also enthusiastic about helicopters. Canadian troops serving with 4 CMBG borrowed British S-55 machines during Ex HOLD FAST 1960 and conducted an airmobile assault in conjunction with a successful Canadian breakthrough led by the 8th Hussars. Several types of helicopters were procured by the new Mobile Command in the 1960s and were put to the test. A number of Voyageur medium-lift helicopters were deployed to work with 4 CMBG in Germany during Exercise ROB ROY in 1967. All 1960s exercises in Germany pointed to the helicopter's limitations: they were maintenance-intensive and could be down a long time, they could not work at night (whereas our Centurions had infra-red equipment at the time), and they were limited by weather conditions.⁵ Certainly armoured vehicles could suffer from these limitations, but the gap was much, much narrower.

These limitations did not prevent the Americans from continuing to push airmobility onto NATO forces in the Central Region. The advent of a reliable anti-tank guided missile, the TOW, in the 1970s and the apparent success of Egyptian use of the SAGGER during the 1973 Yom Kippur War prompted the Americans to re-equip the 101st Airmobile Division and deploy it to Germany for tests. They felt that the heavy armoured and mechanized formations were not flexible enough

(and perhaps too expensive) to handle the threat in Europe. On Ex LARES TEAM (1976), the entire division deployed by air to Germany. 5 CMBG, including the RCD, formed part of the enemy force. The 101st was deployed by helicopter to a series of fixed light infantry battalion positions, each with a number of pedestal-mounted TOW launchers. 4 CMBG's recce squadron identified all of the positions. The other 4 CMBG units moved around the immobile infantry positions, keeping out of TOW range. Within hours the recce squadron hit American divisional support area and laid siege to the Divisional HQ. The American infantry battalions were cut off. When the 101st attempted to reposition their units by air, the helicopters were 'shot down' by West German Gepard units. American gunships were successful in blunting 4 CMBG's attack, but only when the weather improved (4 CMBG was moving so fast that it had outrun its local anti-aircraft protection). After LARES TEAM, the Americans realized that airmobile divisions were too light and immobile for the Central Region and focused on using helicopters to support traditional ground operations rather than replacing them.⁶ In a way, the RCAC contributed to the development of the US Army's Air-Land Battle concept produced in the 1980s.

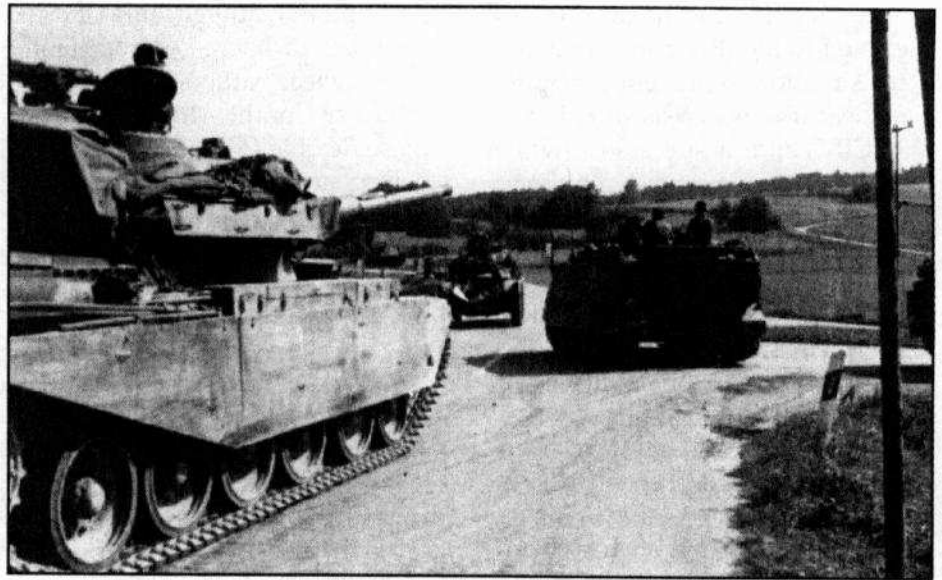
3. LOW INTENSITY CONFLICT (LIC) AND PERIPHERAL WARFARE

The situation in NATO's Central Region was a stalemate which produced peace in Europe. Military analysts thought that the Soviets would then resort to methods short of high intensity conflict and use



them in areas that were peripheral to Europe and North American all with the aim of undermining the West. These methods varied from political influence to internal subversion to supporting civil wars and insurrections. Generally, the peripheral areas were geographically remote with treacherous terrain favouring unconventional and guerrilla operations. Attempts by Western armies using conventional methods to counter such operations were assessed by many pundits as failures (the French in Indochina, the Americans in Vietnam) and that armoured forces had little or no role to play in Low Intensity Conflict (LIC).⁷ At the same time, some Canadian defence analysts and politicians believed that tanks were 'too expensive', 'too offensive' or 'too aggressive' and should be replaced with airmobile formations to handle the LIC environment, as well as the mission in the Central Region.⁸ In fact, the Trudeau Government wanted to pull out of the Central Region all together and focus solely on Norway and other peripheral areas.

This third challenge, the LIC environment, did not prevent the RCAC from exploring means to adapt to it. In addition to this problem, the Trudeau Government did not want to spend money on a Centurion replacement programme. The RCAC responded to the problem by formulating a Light Armoured Regiment concept to supplement traditional 'heavy' armoured units equipped with MBTs. The Light Armoured Regiments were to be airtachable so that they could be deployed to peripheral areas to support LIC operations or mid-intensity conventional operations in Norway, for



example. In terms of equipment, the CVR(T) family of vehicles was considered, as was the Cadillac-Gage V-100 armoured car, the M114, and the Sheridan light tank mounting the Shillelagh gun/missile system.⁹ Fortunately, the CDS of the time, General Dextraze, realized two things. First, if Canada didn't contribute armoured and mechanized forces to the Central Region, Canada would not only lose political influence in NATO but she might weaken NATO's ability and resolve to deter the Soviet threat. Second, Canada needed new tanks in order to maintain these two imperatives. Dextraze was eventually able to back the government into a corner and pressure them to get new tanks.¹⁰ The Centurions were replaced with Leopards and the Light Armoured Regiment concept as originally envisioned was not implemented.¹¹

There was some compromise, however. For budgetary reasons related to political ones, not all Regiments could be equipped with Leopards

and the AVGP series was then acquired. The RCAC in essence adopted a modified version of the Light Armoured Regiment. The Canadian Army was also committed to a NATO peripheral operation in north Norway, a commitment which the 12th RBC practiced regularly as part of the Canadian Air Sea Transportable (CAST) Brigade Group until the decision was made to shift completely to the Central Region with 1 Canadian Division in 1987.

The RCAC did not hold LIC in complete contempt. The 8th Hussars and the 12th RBC participated in Operations GINGER and ESSAY during the LFQ Crisis in 1970. Though tanks were not deployed, both operations demonstrated that the Armoured Soldier could quickly adapt to LIC operations.¹² This was borne out by the participation of both units in Operation SALON in 1990, this time equipped with Cougars, Lynx's, and a number of bulldozer-equipped Leopards.¹³



4. PEACEKEEPING/ PEACEMAKING/ PEACE ENFORCEMENT

Our traditional view of peacekeeping operations prior to 1990 revolves around the concept of the interpositional buffer zone patrolled by a lightly armed and equipped, multinational peacekeeping force wearing blue berets. What possible role for armour is there in the Peacekeeping environment? It is useful to know, however, that armoured forces were considered for peacekeeping duties in the 1950s and 1960s. In 1956 General E.L.M. Burns, the Canadian commander of United Nations Emergency Force I, wanted this force to consist of two infantry brigades, an armoured brigade, a reconnaissance unit, and fighter-bomber support. He was concerned that the belligerents would not take UNEF I 'seriously' without the firepower being present and would 'push it around'. UN New York said no to armour and air support.¹⁴ Major General Carl von Horn of the Swedish Army, commander of United Nations Forces in the Congo in 1960 wanted five or six brigades, artillery, fighter and reconnaissance aircraft and "at least one squadron of tanks" to maintain peace in that newly-independent and violent country. Again, the UN in New York said no.¹⁵

The perception that peacekeeping units should be lightly armed and unarmoured dominated doctrinal thinking in the 1970s and also contributed to the Light Armoured Regiment concept. Again, as with LIC, the Armoured Soldier continually demonstrated that he could adapt to this new environment.

Recce units were allowed by UN authorities in New York and several Regiments committed squadrons to UNEF I and UNFICYP.¹⁶

Once the Berlin Wall went down in 1989 and the Communist Bloc dissolved the following year, there was even more speculation on the future role of armour. There was no threat to justify upgrading, or so it appeared to policy makers and pundits in Ottawa. Three events should have jolted them out of this delusion.

The first was the Persian Gulf War of 1990-91. The crushing allied victory over Iraq, consolidated and driven home by the spectacular use of heavy armoured formations in Iraq and Kuwait, demonstrated that one could not cavalierly dispose of such a capability. The second was the UNITAF operation in Somalia in 1992-93. The decimation of lightly-armed American special forces and the delay in their subsequent rescue due to the lack of a capable armoured QRF had wide-ranging political, let alone operational, consequences.¹⁷ (One can only speculate what might have happened if the RCD squadron from the Canadian Airborne Battle Group had been available in this situation).

Third, Operations HARMONY and CAVALIER in the former Yugoslavia were conducted in a mid-intensity environment in which the belligerents had better equipment than most of the peacekeeping and humanitarian assistance forces. These operations were handicapped to some extent by the lack of modern MBTs and MICVs in Canadian units. Though the Armoured Soldier was quite

adept at adapting the AVGP for use in this theatre, he should not have to have done so. There is no reason why Canada could not have sent Leopards to back up the PK and HA effort. Even the Danes, with a national reputation of being one of NATO's 'weak sisters' during the Cold War, sent Leopards to Bosnia-Herzegovina.¹⁸ Belligerent interference might have been lessened by the deployment of and operational use of tanks in this environment. IFOR possesses a comprehensive heavy armoured capability and this contributes to its success.

CONCLUSION

The RCAC can only adapt so far with what it has. Canada planned to contribute heavy armoured and mechanized forces to the Gulf War. This plan, Operation BROADSWORD, included two armoured regiments equipped with MBTs.¹⁹ Canada still has a brigade group commitment to NATO's ACE Rapid Reaction Corps: it also includes armoured units. Operation COBRA, the planned UNPROFOR extraction operation, included an armoured contingent as part of that 7000-man Canadian contribution. As we have seen, not all future PK operations will be in environments with severe geographical constraints like Zaire and Cambodia. Future threats may be diffuse to us now, but they will be upon us virtually without warning. The RCAC had adapted and survived change before and it must continue to do so. No matter what happens, we need to keep the sabre sharp.



Footnotes

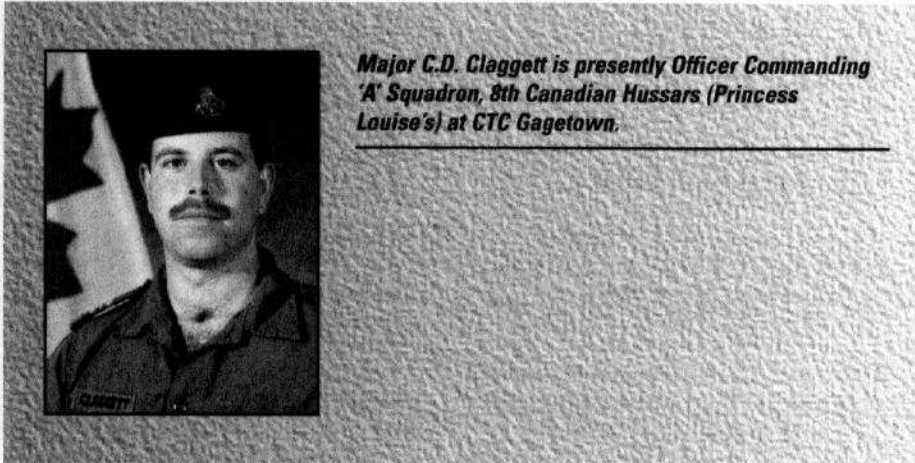
1. An example of this thinking is the Canada 21's propaganda book, "Canada and Common Security in the Twenty-First Century", produced by the Centre for International Studies in 1994.
2. See *War Without Battles: Canada's NATO Brigade in Germany, 1951-1993* (Ottawa: 4 Brigade Historical Association, 1996) Ch 3.
3. The specifics of our involvement in NATO's Central Region are available in *War Without Battles*.
4. James Garvin, *War and Peace in the Space Age* (London: Hutchison and Co., 1959) pp 112-116
5. *War Without Battles: Canada's NATO Brigade in Germany, 1951-1993* Ch. 4
6. *War Without Battles: Canada's NATO Brigade in Germany, 1951-1993* Ch. 5
7. Bernard Fall, *Street Without Joy* (Mechanicsburg: Stackpole Books, 1994) Ch. 9 and Andrew Krepinevich, *The Army and Vietnam* (Baltimore: John Hopkins University Press, 1986) Ch. 1
8. See Parick Finn, "Tanks for the memory? Not if they can help it.", *The Montreal Star* December 21, 1974; George Lindsey, "A New and Useful Role for The Canadian Army in Europe", lecture paper (updated).
9. "Testing The Commando", *Sentinel* May 1966 pp. 16-17; DG History, The Rayment Collection, file 140, (9 Jun 65) memo to the Defence Council from the CDS, "Tracked Reconnaissance Vehicle"; file 141, (14 Mar 66) memo CDS to MND, "Army Equipment Deficiencies."
10. Douglas Bland, *Chiefs of Defence: Government and the Unified Command of the Canadian Armed Forces* (Toronto: CISS, 1995) p. 236-238
11. The Light Armoured Regiment would make an excellent subject for a future *RCAC Bulletin* article. The origins of the Assault Troop are part of this concept, as was the Lynx purchase. In 1967 some thought was even given to forming a composite Lynx/Ferret unit.
12. FMC HQ, (29 Jan 71), "Operation ESSAY: Final Report."
13. J.A. Roy, "Operation SALON", *Canadian Defence Quarterly* April 1991, pp. 15-19
14. E.L.M. Burns, *Between Arab and Israeli* (Toronto: Clake, Unwin and Co., 1962) p. 188
15. Carl von Horn, *Soldiering for Peace* (New York: van Rees Press, 1966) p. 191
16. See Fred Gaffen, *In The Eye of the Storm: A History of Canadian Peacekeeping* (Toronto: Deneau and Wayne Publishers, Ltd., 1987)
17. Kenneth Allard, *Somalia Operations: Lessons Learned* (Washington, D.C.; NDU Press, 1995) pp. 56-59
18. Richard Calver, "Monci tenkovi Leopard u lovu za mirom", *UNPROFOR News* 10 Jan 1995
19. For those interested in Op BROADSWORD, see "Missed Opportunity: Operation BROADSWORD, 4 Brigade and the Gulf War, 1990-1991" in *Canadian Military History* Spring 1995, Vol. 4 No. 1 pp. 36-46. This article was supposed to be an appendix to *War Without Battles* but it was cut out in the editing process.





Canada's (R)evolving Recce Doctrine: An Old Dog Re-learns Old Tricks

Major C.D. Claggett



Major C.D. Claggett is presently Officer Commanding 'A' Squadron, 8th Canadian Hussars (Princess Louise's) at CTC Gagetown.

"Doctrine's role is to express and teach a current, consistent and relevant approach to combat resolution."

BACKGROUND

From 10-12 March 1997, Directorate of Army Doctrine (DAD) sponsored a working group (WG) at CFB Gagetown to discuss a draft reconnaissance concept. Participation was extensive with a variety of units, organizations, and schools represented. The WG was asked to comment and provide input on a conceptual Reconnaissance, Intelligence, Surveillance, and Target Acquisition (RISTA) doctrine developed by DAD.

While much work had been done to develop the concept, it was obvious that there were some critical and debilitating flaws in the process that led up to the WG. During the syndicate and plenary discussions, it was

repeatedly mentioned that there were no guiding first principles to help form the basis of the concept presented or that would provide the WG with an objective perspective on the discussions. The result, predictably, was a highly subjective and fragmented interpretation by the syndicates of those issues being discussed.

AIM

The aim of this paper is to examine the critical weaknesses inherent in our evolving RISTA doctrine and concepts in order to provide some further refinements to the concept so that suitable reconnaissance doctrine can be developed for the 21st century.

DISCUSSION

The conceptual RISTA doctrine¹ presented at the WG was motivated by several issues:

1. Recce doctrine, re-written in the 70's, was not suited for the sophisticated battlefield of today or tomorrow. It is completely incapable of providing worthwhile training and employment direction for the new COYOTE with its state-of-the-art surveillance system;
2. The re-writing of CFP 300-1 and 300-2 to incorporate "manoeuvre warfare" concepts necessitated an examination of information gathering and usage; and
3. Army Capital Equipment Projects coming on line over the next 10 years (TCCCS, LFCS, and RISTA eqpt) will impact heavily on how information is acquired, where it is synthesised, and who will access and use the intelligence product.

As a result of these influences, DAD undertook a complete review of the six combat functions² and how RISTA was to be incorporated in Army operational and tactical doctrine.

A DOCTRINE-BASED ARMY

The Canadian Army's move to a more formal doctrine-based approach to warfighting brings with it certain responsibilities, especially for an army our size. Doctrine's role is to express and teach a current, consistent and relevant approach to combat resolution. For the Army, this entails



the establishment of a “doctrinal basis for the conduct of land operations.”³ This requires the Army to establish several critical markers:

1. Defining where we are (start state);
2. What we need to do to win future battles (the vision); and
3. How we are going to get there (the journey).

A critical component of doctrine is the vision. Without this defining focus, doctrine will be haphazard and subjectively interpreted by the authors. Neither case is acceptable for a doctrinally-based organization because of its implication on future equipment, training, or structures.

Unfortunately, this is what occurred during the WG in March. Participants were asked to “think 10-15 years ahead” when discussing the DAD concept. Yet, no one provided the overarching “vision” for Canada’s RISTA requirements of the future. There was no conceptualization of the future, of how we intend to look, operate, and fight! How then could the WG hope to think of the proposed concept in any other light than the present? This structural flaw resulted in a cap-badge focussed and subjective interpretation of the DAD document, that failed to achieve any substantial or innovated improvements to our present situation.

The solution will be neither quick nor easy. What is lacking is the future “vision” of how the Canadian Army will look, fight, and be equipped in the 21st century in order to meet Canada’s foreign policy objectives. The arguments that the “budget will dictate our future” has no basis in our

doctrinal approach to warfighting. Yes it will influence the Army along the way, but that is the journey! Our goal must be the vision! It must be clearly selected and maintained if we are ever to move forward. We can navigate the path to the goal, steering around the potholes of budgets and force size, only if we know what is the goal! Without knowing the goal we will continue to react to outside influences and be incapable of influencing our own destiny.

A FIRST PRINCIPLE REVIEW

Now, faced with the reality of the on-going review and writing of the keynote documents of our new doctrine, one might conclude that it is too late for the vision. I contend, however, that it is not too late in the process if we want to get this right. Doctrine is dynamic and can still be modified if we get the vision. The solution is a detail examination of RISTA as it relates to an articulated vision of the future. However, in the absence of an over-arching visionary framework, all doctrine derived from the six combat functions must undergo a first principle review. This will allow evolving doctrine to be sterile and objective. This review must be undertaken:

1. with a view to examining evolving doctrine in relation to Canadian foreign policy;⁴
2. outside the influences of corps jealousies. A truly objective analysis must occur without being tied to pre-conceptions and turf wars;
3. by using present structures as a guide, but not allowing ourselves

to be “handcuffed” to them.⁵ Current and past ORBATs must serve as guides not the framework for the future; and

4. by reviewing equipment “in the pipe” and evolving technology that will have a bearing on RISTA.⁶

Aside from the lack of a vision, the most significant problem faced by the WG was the absence of a first principle review. The WG was asked to comment upon vehicles, structures, tasks, and ORBATs without having a coherent understanding of what RISTA was to accomplish in the future to support operations. The six syndicates⁷ were asked to comment on specific questions without a common framework from which to begin. The result was a fragmented and inconsistent approach to the problems presented that eventually boiled down to present Corps related issues. If a detailed idea of combat function requirements of the future, as they relate to RISTA, was available, then the deliberation would have had a single, objective position from which to work. This common framework is still needed and must be developed.

SELLING THE RISTA UNIT

One innovative issue that emerged from the discussions was the need to centralize RISTA activity in a more deliberate fashion than is the case now. From the discussions, it was generally held that RISTA must be centralized in a single organization at each planning level (tactical, operational, and strategic) to ensure unity of effort. This was driven by the importance to acquire and manage information in the future.⁸ However, the DAD representatives were




concerned about the ability to "sell" the idea of a RISTA unit to DAD, ADTB, and our senior leadership. In the end, the decision was made to approach RISTA in a lock-step fashion, gaining approval for certain issues that were easier to "sell", thus getting a foot in the door. At some future date the idea of a RISTA unit would evolve into discussion.

This approach to doctrinal development is worrisome. If we are to be doctrine-based, then all concepts must be brought forward for discussion in their entirety. Incrementalism is a hallmark of the past and has no place in today's combat development. If a concept is developed, sound, and needed, then it is probably worth discussing. The ability to sell the idea rests with the articulator of the idea and the writers of

doctrine. Any idea, clearly presented with a sound and logical argument, must be taken seriously. The concerns over the ability to sell the idea to the senior Army leadership, who are themselves "generalists", is probably over-stated. The incremental approach to the RISTA concept is both damaging and unnecessary. It is important that the idea of the RISTA unit, discussed at the WG, be brought forward for discussion as a possible means to handling information acquisition and management in the future.

CONCLUSION

While I was encouraged by the work completed by DAD on the new recce doctrine, there remains a fundamental analytical gap in the development process. I am convinced that the

WG was hamstrung by a lack of an over-arching vision of the Canadian Army of the future and the failure to rectify this fault by conducting an objective analysis of RISTA from first principles. This detracts from the credibility of the concept and the decisions of the WG. It is important that any doctrinal development being considered in a visionary vacuum, be examined in the broadest possible. This was not done and will negatively influence the outcome of how we will train, organize, and fight the information war in the future. This can not occur because of the consequences of failure. Army leadership must give us the vision for the Army of the future and DAD must examine RISTA within the context of this vision. Only then can doctrine be formulated to meet our needs in the 21st century. 

Footnotes

1. *CONCEPTUAL RISTA DOCTRINE*, 10081-1 (DAD) dated 11 Feb 97.
2. CFP 300-2, Second Draft - LAND FORCE TACTICAL DOCTRINE, pg. 1-5. The six combat functions now include Command, Information Ops, Manoeuvre, Firepower, Protection, and Sustainment.
3. B-GL-300-001/FP-000, Vol 1 - CONDUCT OF LAND OPERATIONS - OPERATIONAL LEVEL DOCTRINE FOR THE CANADIAN ARMY, 1996-09-15, pg. iii.
4. Foreign policy must be considered in the first principle review as it dictates the use of military force.
5. In the DAD conceptual document, all structures and ORBATs (save the (RSCC) were derived from existing structures. This is an example of being "handcuffed" to present ORBATs as opposed to viewing them as a guide.
6. The specifics of high tech equipment will be difficult for a "generalist" to fully comprehend. Insight and briefings by experts for the purpose of understanding the influence of the technology on the review will be required. Furthermore, evolving technologies can be targeted as areas for study at the Land Force Technical Staff College.
7. The six syndicates were grouped to discuss various aspects of reconnaissance and RISTA. These included: RISTA concept, protection and firepower, aviation, armoured recce at the formation-level, armoured recce troop, and the infantry recce platoon. One can see how some of the syndicates were immediately drawn into Corps related issues and ideas.
8. CFP 300-1, pgs. 2-7/2-8, 3-7 to 3-10, and 7-5. The myriad of systems that are now available, or soon will be, will produce huge amounts of information on the future battlefield. CFP 300-1 clearly describes intelligence as the engine of manoeuvre warfare and the decision cycle. As a result, the idea of managing information gathered from an array of sources, and then processing it into an useful intelligence product, was a major area of discussion for syndicate one. The syndicate briefed on the need to centralize the gathering process of all RISTA systems to simplify the process. The concept described the need for a single RISTA "unit" that would coordinate a "system of systems." This system would incorporate a variety of different but mutually supporting information gathering systems (ground and air recce, EW, UAVs, CBTA...). This unit would have a single commander trained in the job of gathering and exploiting information for the commander.



Excerpt From – Historical Study Small Unit Actions During the German Campaign in Russia

LtCol Mark Hutchings



Lt Col Hutchings is currently the Commandant of the Tactics School at CTC Gagetown. In this capacity he likes to provoke thought on various issues, and has supplied the Armour Bulletin with an historical perspective on the employment of Armour.

“At CTC, arguments still occur on how to employ Armour; can tanks be used singly or in pairs? How is intimate support of infantry best achieved? etc, etc. The following order is wonderfully concise and still relatively accurate, even after 55 years!”

THE FEDORENKO ORDER (JUNE 1942)

The Russians realized the superiority of the T34 tank early in the war and converted their plant facilities to the sole production of this one model. During their first winter in Russia, the Germans encountered enemy tanks either singly or in small groups. This scarcity of armor came about because the production of new tanks was low and because many of those which did become available were used far behind the front to train crews on the latest tactical doctrine. With the improvement in optical and

radio equipment, the Russian command was finally able to organize large armored formations and employ them in far-reaching operations.

Although the Russian military had reason to be satisfied with the local successes achieved during the winter of 1941-42, it was nevertheless fully aware of the deficiencies still inherent in the tactics of large armored formations. It thus felt obliged to intervene in armored affairs at the end of June 1942, and did so by issuing a new directive, which was particularly important because its author, Fedorenko (Chief Marshal of Tanks and Mechanized Forces and Deputy Commander of Defense), drew the right inference from previous mistakes. That these conclusions were correct was proved by subsequent developments. It is to be assumed that the basic principles expressed in this order continue to govern the employment of

Russian armor to this very day. The following is a translation of the Fedorenko Order:

SUBJECT:
Employment of Armored Formations

TO:
All Armored Forces Commanders at Front Headquarters and Army Headquarters, and Commanding Generals of Armored Armies and Corps

An analysis of the combat operations of several armored corps in May 1942 indicates that commanders of armored forces at front headquarters (Ed: Russian equivalent of an army group, subsequently referred to as such) and at army headquarters lack comprehension of the basic principles governing the employment of major armored formations in modern warfare. The XII Armored Corps, for instance, committed on the right of a force attacking in the direction of Kharkov, was split up into single brigades and employed piecemeal, with the result that the commander of armored forces at the superior army group headquarters was unable to conduct the operations of the corps. The XXI and XXII Armored Corps on the left of the attack force were identified by the enemy long before their commitment in battle. Once again, the commander of armored forces at army group headquarters had no control whatsoever over his subordinate corps.



Until the official regulations for the employment of armored troops are approved and issued by the People's Commissar for Defense, the following orders will be observed:

1. The armored corps is a basic unit and will be reserved for the execution of strategic missions.
2. The armored corps is subordinate to the army group headquarters and will be committed for the execution of strategic missions in conjunction with other troop formations of the army group.
3. It is forbidden to place armored corps under the command of armies and to split them up for the purpose of reinforcing the infantry. An armored corps committed within the area of an army will operate in conjunction with that army for the duration of a designated operation, while simultaneously maintaining contact with army group headquarters.
4. In an offensive operation conducted by an army group, an armored corps has the mission of massing its forces for a deep thrust, enveloping the enemy's main forces, encircling them, and destroying them in cooperation with the air force and with other ground units.
5. In order to preserve the striking power of an armored corps for a strategic envelopment and the ensuing struggle deep in the enemy's rear, it is forbidden to employ armored corps for breaking through fortified positions. However, when reinforced by artillery, tactical air force, infantry and engineers, an armored corps may be committed for a frontal breakthrough attempt against prepared enemy positions.
6. An armored corps may drive ahead of the other friendly forces and penetrate the enemy sector to a depth of 25 to 30 miles, provided that a second wave is sent through the gap. The situation will often require that, immediately after a breakthrough of the hostile positions, the enemy's main forces - located 10 to 15 miles behind the MLR - are enveloped, encircled, and annihilated with the assistance of other formations.
7. The armored corps is considered to be capable of 72-96 hours of uninterrupted commitment.
8. The accomplishment of an armored corps' mission depends essentially upon the training and esprit de corps of its personnel, on air support, and on proper coordination with the artillery, tactical air force units, engineers, and other arms and services.
9. Once it has achieved a strategic envelopment, an armored corps will establish contact with air-landed troops and partisan units.
10. During defensive operations an armored corps will be committed in counterattacks against any enemy forces that have broken through the friendly MLR or have enveloped the flanks, especially if these forces consist of armored and motorized units. In such instances the counter thrust will not be executed as a frontal maneuver, but will be delivered against the enemy's flank or rear.
11. In any event, surprise is of the essence in committing an armored corps. For this reason the assembly or regrouping of forces will always be carried out by night. Should a regrouping during the day become inevitable, it will be carried out in groups of no more than three to five tanks.
12. Terrain factors must be given foremost consideration in selecting the direction for an armored corps attack. They must be favorable for the mass commitment of armor.
13. If intact rail facilities are available, the cross-country movement of tanks over distances exceeding 30 miles is forbidden.
14. In planning the commitment of an armored corps, especially in a strategic envelopment, adequate supplies of fuel, ammunition, rations and spare parts must be prepared for the entire duration of the operation, and the tank recovery service must be appropriately organized. The following quantities of supply will normally be carried by the combat trains:

Fuel	-	Equivalent of three times the vehicle's capacity
Ammunition	-	Two to three basic issues
Rations	-	Five daily



The tank crews will carry the following additional rations: two to three tins of canned meat or hard sausage, canned ham, soup concentrates in cubes, bread, zwieback, sugar and tea or water in vacuum bottles.

15. The armored corps commanders and the armored forces commanders, as well as the military council of the army group,

will be held responsible for the proper employment of the armored corps in combat as well as for their logistical and technical support.

The effect of the Fedorenko Order was not immediately noticeable. In the summer of 1942, the Germans once more seized the initiative on most sectors of the Russian front. The Russians, still handicapped by

a shortage of up-to-date tanks, were forced to use their slower and less maneuverable heavies in conjunction with the T34's. They resorted to a number of ruses and ambushes in an effort to gain a maximum of time at the loss of a minimum of space. Backed by a steadily mounting tank production, they made every effort to ward off the German onslaught by skillful defensive maneuvers.





Focus on Echelons

Capt D.K. White, CWO R.P. Vanlderstine, 8CH (PL)



Capt White was posted at the Armour School as an Instructor and part of the Standards Section for four years. He is presently the ZIC of B Squadron, 8CH in Moncton/Sussex.



CWO Vanlderstine was the Chief Instructor on the QL7 Course at the Armour School four out of the last five years. He is currently the RSM of the PEI Regiment.

“...the long term effect of our neglect in echelon training will ultimately be realized by our troops running out of beans and bullets.”

Often the thrust of conversation dealing with doctrine and tactics is the use of battlefield manoeuvre and combat resources to defeat the opposing threat. The ‘doctrine’ discussed usually focuses on the use of tanks, mechanized infantry, artillery, tactical aviation, etc. but rarely does it revolve on the support required to drive the war machine. Napoleon observed that an army ‘marches on its stomach’. The method of providing the basic necessities for a soldier to fight has challenged field force commanders as long as armies have campaigned.

The logistical problem of supporting a tank regiment is charged to the OC of HQ Squadron with an uncomplicated (but often misunderstood)

echelon system that has evolved within the Armour Corps to meet the needs of the regiment being supported.

Our infantry brothers in arms are amazed at the scale of ammunition and fuel the tanks consume in a day’s operation. No doubt the mechanic’s career manager is frustrated by the number of skilled tradesman he must supply to keep our tank regiment in fighting trim. While others may be in awe of our ability to push combat supplies forward to the tank crews in a timely fashion, we ourselves are guilty of downplaying and placing the training of our echelons on ‘the backburner’ in favour of training the sabre squadrons. COs and RSMs might challenge this statement, but WOs arriving for training as QL7 candidates have limited knowledge of echelon operations beyond squadron level. Reserve senior WOs often have little knowledge of any facet of echelon operations.

The word *echelon* is a derivative of the Latin word *scala* meaning ladder. The different levels of echelon support can be compared to the rungs of a ladder with the ‘F’ or Fighting echelon being the very top rung. The next level down is the Squadron Sergeant-Major with the A1 echelon. The SSM travels close to the squadron and is always at the disposal of the squadron commander to provide battlefield replenishment, repairs, evacuation, etc. A troubleshooter of sorts, the SSM should never be further than a few kms behind the forward troops.

Located within 5-10 kms of the FEBA and along the MSR, the ZIC of HQ Squadron commands the Regimental A2 Echelon, assisted by the SSM. The bulk of the regiment’s holdings of ammunition and POL are held in the A2 echelon under the control of the Transport Troop. Further, a well equipped medical section and senior technicians are also located



there. From the command post, the OC controls his flock as the control station of the Regimental Admin net.

Around this command post each of the Squadron 2ICs are located, to look after their squadron's needs, and learn the business of echelons. However, far too often, they are stripped away to perform rear party duties, Exercise Control or some other task. Rest assured there will be a price to pay for our indifference to officer development and lack of appreciation of echelon operations. It is here that our echelon system is in danger of disintegrating. Only an armour officer, sensitive to the needs of the squadron and tactically aware, can ensure that the squadron's needs are met and that the flow of supplies remains unbroken.

On the bottom rung of the echelon ladder is the B Echelon. It is normally located in the Brigade Administrative Area (BAA) about 15-30 kms behind the sabre squadrons and along the MSR. Commanded by

the Quartermaster, the B Echelon is the regiment's direct link with the Service Battalion. All the SQMSs are grouped together in this same area to represent their individual squadron interests.

The replenishment cycle demands that the sabre squadrons are topped up daily by means of an RV between the SQMS and the SSM. Often this procedure is carried out after dark and under conditions of radio silence. Tactical awareness and a good understanding of echelon SOPs will ensure that this replenishment procedure occurs smoothly.

Currently, the need to exercise our soldiers and leaders in echelon operations is *generally* overlooked in favour of exercising the sabre squadrons in the different phases of war. Additionally, our focus of training has deviated from war fighting as battle groups to concentrate on operations other than war. The problem is that training is normally confined to small manoeuvre

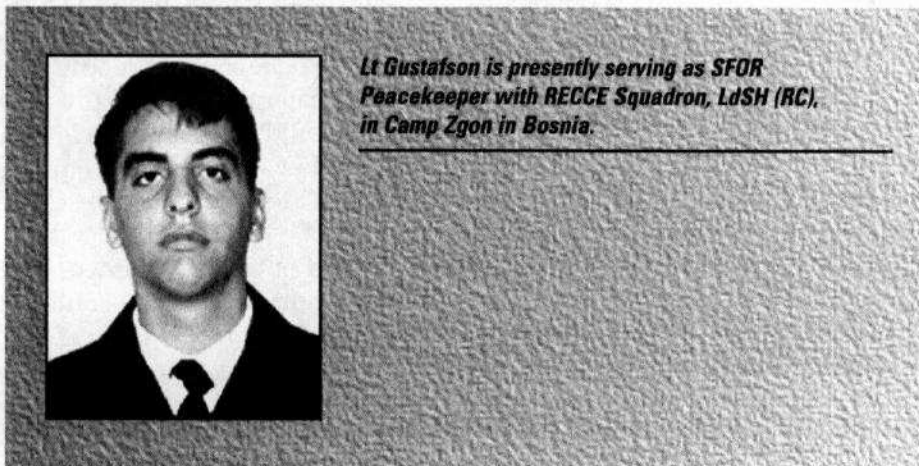
areas and echelons are not stretched out over the kms that they would be in a wartime scenario. In general, echelons do not deploy as they should which poses a problem for realistic training. As a result, the long term effect of our neglect in echelon training will ultimately be realized by our troops running out of *beans and bullets*. The corporate memory of echelon expertise is rapidly evaporating as experienced officers and warrant officers leave our army.

The echelon as documented in our publications has worked well in the past and is designed to provide great flexibility to commanding officers. This flexibility has enabled echelons to take different shapes to conform to different operations (ie Germany, Peacekeeping Operations). The problem is that insufficient numbers of crewman and officers currently understand the importance of the echelon system or how to exploit its inherent flexibility. To have an effective force of any composite size or realization, some of the focus that has been placed on training our Combat Team Commanders must shift to educating Echelon Commanders.

History has proven that those who have understood the power of echelons have campaigned well and that those who took for granted their lines of supply, floundered. The art of warfare encompasses both the tactical and logistical support required to be effective on the battlefield. The Armour Corps must not lose sight of the latter.



The Defence of Duffer's Drift (and operations other than war)



Lt Gustafson is presently serving as SFOR Peacekeeper with RECCE Squadron, LdSH (RC), in Camp Zgon in Bosnia.

One of the first lessons learned by the initially unfortunate Lt B.F. is that an officer must never put off making measures of defence despite the apparent non-presence of the enemy. This would seem to be a rather basic lesson in wartime, but in operations in a low-threat, other-than-war environment, its salience is not immediately apparent. Before one rushes to this conclusion, however, one must consider the factors that have brought armies such as that of Canada to involve themselves in low-intensity conflicts.

"Not only does this book provide helpful lessons in small unit infantry actions in war, it also gives many insights applicable to operations other than war (OOTW)."

It is the duty of all military officers to devote attention to the lessons learned by armies past. Perhaps the best way to do this, for want of walking the battle-grounds themselves, is to read of those events as summarized by their participants. These books do not have to describe great actions to be of worth; indeed, it is small unit actions that so often determine the outcome of greater battles, and which therefore deserve attention in study.

One particularly interesting examination of small unit engagements is the study *The Defence of Duffer's Drift*, by Major General Sir Ernest Swinton. Rather than being a narrative of a battle won or lost, this slim volume is the first person description

of a particular, yet fictional, small unit action to guard a ford site somewhere in South Africa, sometime during the Boer War of 1899-1902. Not only does this book provide helpful lessons in small unit infantry actions in war, it also gives many insights applicable to operations other than war (OOTW).

The book is laid out as six chapters, each describing the same battle in the dreams of the eager subaltern, Lieutenant Backsight Forethought (BF). After each dream the narrator defines certain lessons learnt during the preceding engagement. These are then remembered and applied in his next dream as he defends the same ford from the same enemy once again. Each engagement, as one might guess, proceeds somewhat better than the one it follows. As space does not permit a full description of the terrain and the battle, this study shall concentrate solely on the lessons learnt as they apply to OOTW.

The most obvious example is that of the former republic of Yugoslavia, where NATO has involved itself in an attempt to keep the former warring factions from becoming warring factions once again. What this tells us is that the factions involved, although currently peaceful, are well armed and have the desire or the capability to continue fighting. The safety of the NATO troops involved is in their strength and ability to destroy instantaneously any sudden threat from the former belligerents. Should third-party troops establish themselves in undefended or indefensible positions or camps, they become a too-easy target for any actions by terrorists or renewed hostility; they forfeit the power that makes them effective. Defence, in short, is a must for any army regardless of the apparent lack of any immediate threat.

Coming together with the need for the defence is the need for an effective defence. This statement may seem



a blinding glimpse of the obvious, but its meaning is slightly more complicated. One particularly stinging lesson absorbed by Lt B.F. came about as his enemy did not attack him from the direction that he had anticipated. Rather, they snuck up upon his position, surrounded it, and attacked from everywhere at once. An obvious fact here is that when operating against a capable, highly mobile enemy, or in the enemy's rear, there is no 'front' and 'back': the threat approaches from anywhere in the time and place of his choosing.

This is applicable to OOTW for the simple reason that for a third-party force operating in a strange and potentially violent nation, the direction of threat cannot be identified, as one has immersed himself inside the threat itself. In order to operate properly, a force in this situation must break itself away from the prevalent mental pitfall of giving the battlefield a front and a back, dangerous even in full scale war, and concentrate on developing a more panoramic situational awareness.

An extrapolation of this, not truly covered by Swinton, is that the 'threat' in an OOTW environment is not always obvious. He does not approach with flags waving and band playing, but may demonstrate himself first by terrorist action at an unexpected time. This is because situations like Bosnia are not overtly violent, yet any small incident or perceived provocation to any party may quickly and violently escalate events. To combat this an effective force must be able to gather, as accurately as it can, intelligence as to the state of the potential foe. This may take the form of conventional means such as patrols and observation posts,

as done by B.F. in the book, but also by speaking to the locals and gauging the mood. Indeed, the hero of the story does this, but as he later learns, much to his dismay, this is not always accurate and information gathered by locals should not be taken as gospel.

From this last item one is introduced to a final point learned by the good Lt B.F. This is that the complicity of locals or neutrals in the cause of the enemy must always be assumed. B.F., as mentioned above, does speak to a local farmer while doing his initial reconnaissance, and after appreciating that the man was friendly, not only believed everything he was told, but also revealed important facts of his own force and defences. Indeed, he allowed the man to wander freely about his position. This proved to have been a poor idea when, while marching off to captivity, B.F. noticed that same pleasant farmer as being one of his attackers.

While operating in an apparently peaceful or low-intensity environment, one can then appreciate, it is not always safe to assume that the non-combatants are in fact neutral. In these environments, the Canadian Forces regularly deal with interpreters, local civil authorities, and others in the general population who either appear or make the effort to appear friendly or neutral. As poor old B.F. found out, however, this may not always be so. The lesson to take here, then, is that efforts must be made to prevent the dissemination of vital security intelligence to these individuals.

This may mean simply not providing head-sets to interpreters, burning of all potentially sensitive 'garbage' (old FMPs, trace tapes, et cetera),

not allowing locals to enter the camp, and also discipline enough to keep soldiers from disclosing information while taking coffee in local establishments. These simple guidelines may prevent a seriously dangerous leak of intelligence to a potentially hostile foe, or even lead him to believe that friendly forces are greater than they really are. This could prove extremely critical should events escalate from peace support to fighting a full-scale war.

Should one be so inclined, even more detailed lessons could be drawn from *The Defence of Duffer's Drift*. As brevity demands, however, the lessons discussed above seem most relevant to Canada's modern combat arms officer. In a book nearly ninety years old pertinent lessons still abound.

Swinton's small book, it can then be seen, is not simply a guide to infantry tactics in war. By looking more deeply into the situation described by Swinton, the astute reader can take lessons that apply to OOTW. As the operations of the CF are tending more towards OOTW, works by military minds of times past have not necessarily lost their applicability. Hopefully, today's officers possess the patience, intelligence and perseverance to pursue these lessons for the sake of their own professionalism and the lives of their soldiers.

Lt K.C. Gustafson
Recce Sqn, LdSH(RC)
Zgon, Bosnia



Kantanks – Canadian Armour in the Great War

Major M.R. McNorgan, RCD

"We squad-drilled, PT'ed, cursed the army, the Kaiser, the war, ourselves."

The idea of raising a Canadian tank unit to serve in the Great War was said, by the unit's own in-house publication, to have originated in a January 1918 conversation between Major-General H.J. Elles, General Officer Commanding the Tank Corps, and a Canadian gunner on his staff, Lieutenant-Colonel J.E. Mills.¹ Mills, a tank enthusiast, expressed an opinion that Canada should be involved in this new form of warfare. Ellis, taken with the idea, recommended to the War Office that Canada be invited to raise a tank battalion for service in France. The idea was well received at the War Office for two reasons. First, Britain had a manpower shortage and would welcome additional troops. Second, the British strategy for the next campaigning season, called the '1919 Offensive', required vast quantities of armour. The proposal was therefore passed to the Canadian High Commissioner, Sir Edward Kemp, who forwarded the request to Ottawa.

On 28 March, Ottawa appointed Lieutenant-Colonel R.L. Denison to raise and command the new battalion which would become a part of the Canadian Machine Gun Corps.² By 15 May 1918, Denison had a complete complement of personnel, an astounding feat in the fifth year of the war. Back in Britain, Lieutenant-Colonel Mills had been sent to Bovington

Camp, the tank corps' training centre in Dorset. His task, along with 20 officers and 50 other ranks, was to qualify as an instructor. Once the Canadian Battalion arrived in Britain they would undertake its training.

The three companies of the 1st Canadian Tank Battalion were raised from Canadian universities; 'A' Company from Toronto, 'B' from McGill and 'C' from other universities across the country. It was the battalion's proud boast that every province of the Dominion was represented in its ranks. Indeed, it must have been one of the most highly educated units to ever serve in the Canadian army. The manpower of the battalion amounted to 688 all ranks: this included a headquarters and three tank companies. The companies were subdivided into four sections that each contained a small headquarters and five tanks (every tank was commanded by an officer). The sections were numbered consecutively so that 'A' Company had 1,2,3 and 4 Sections, 'B' Company included 5,6,7 and 8 Section, and so on.

The recruits were instructed to gather in Ottawa, their barracks being a former brewery on Wellington Street. Here the students were introduced to the army. As a member of the battalion later noted army life had its difficulties but also its rewards:

... But our Ottawa evenings were the best of all. There wasn't a lad in the crowd but enjoyed to the full the company of the ladies

who entertained us in our own YMCA and who afterwards invited us for automobile rides up the river and through the experimental farm and to their homes for Sunday dinner. The picnics and dances at Britannia Park with younger ladies and canoeing on the Rideau Canal were, sadly enough, just coming into full sway when June 3rd, 1918, arrived very early in the morning.³

That day the battalion entrained for Halifax, where it embarked on the liner *Cassandra*. Twenty-one days later the *Cassandra* docked in London and the battalion entrained for a segregation camp (designed to prevent the spread of infectious diseases), a huge tented camp site in Surrey called Frensham Pond.

Life at Frensham Pond camp was to prove memorable, but not in a pleasant way. A recovery period of four days was spent relaxing in the large white 'Bell tents', writing letters home and passing pitying eyes over the poor infantrymen who spent every waking hour doing close order drill. Then came the awakening:

Battalion orders one night contained the interesting information that squad drill would be carried out next day "according to syllabus laid down." That phrase occurred for exactly 34 days following that, Sundays excepted. We squad-drilled, PT'ed, cursed



Photo credit: National Archives PA-003257

The tank is a British Mark V, the infantry are Canadian. These troops are conducting tank-infantry cooperation training behind the lines. France, October 1918.

the army, the Kaiser, the war, ourselves. We ate sand and every other bit of rations that came our way. We were always hungry and growing fat on it. We were hard as nails ...⁴

As well as hard work, Frensham Pond also had compensations:

The sports days at Frensham were walkaways for the tank battalion. It was an oversight if any of the 4,000 other troops in the camp won any events. Of course it didn't make us any too popular with our fellow-soldiers of the King but we managed to pass the seven weeks without an actual battle with our friends.⁵

While the men were enjoying the hospitality of Frensham Pond the officers, under Lieutenant-Colonel Mills, were at Bovington being introduced to the mysteries of armoured warfare. A tank crew of the Great War era comprised eight men. The earliest crews were made up of four drivers and four gunners. The Mark V, which the Canadians would use, needed only one driver, the other seven men were the crew commander (a new innovation in that he did not also have to help drive or man a gun) and six gunners.⁶ When the officers and men of the 1st Battalion were reunited in Bovington, tank training began in earnest. Day one was Monday, 12 August 1918. The men divided into two groups: drivers and gunners. The courses for both

trades lasted four weeks. As well as driving and gunnery, the battalion personnel were given instruction in camouflage, reconnaissance, gas defence, signalling (including the use of carrier pigeons), the compass and revolver training.

The battalion had completed all of its training by early November 1918 and was scheduled to depart for France on the 18th - the troops started their six days embarkation leave on the 11th. Just before the final leave, on the 7th of November, there was a change of command, with Mills replacing Denison as CO. Lieutenant-Colonel Mills now departed for France where he was conducting a reconnaissance of the battalion's operational area when news came of the Armistice.



Being one of the very last units sent to Britain, the 1st Battalion was at the end of the queue for repatriation. In consequence the battalion marked time in Britain until 18 May 1919, when they embarked at Southampton for the journey home.

The Cantanks or Kantanks, as the soldiers of the 1st Battalion called themselves, would not be the only Canadian armoured unit in Britain.⁷ With the 1st Battalion successfully launched, the Canadians undertook to raise a brigade and an armoured corps.⁸ The next battalion's manpower came from two sources. In France a large contingent from the Royal North West Mounted Police, who had arrived for service with the cavalry, were offered the opportunity to transfer to the tanks. A total of 226 accepted, with the result that they were posted to Bovington for armour training. Meanwhile, in Canada a number of artillerymen in Petawawa found themselves offered the opportunity of service in Siberia or service with the tanks. Most transferred to the tanks hoping to get into action sooner.⁹

The 2nd Battalion entrained in Petawawa on 3 October 1918 heading for Quebec City. With them travelled the influenza virus that was circling the world - destined to kill three times as many people as the war. At Quebec they boarded His Majesty's Transport (HMT) *Victoria*, a converted cattle boat. Some of the ship's passengers were in the advanced stages of influenza and had to be carried aboard on stretchers.¹⁰

The *Victoria* sailed on the 6th. Only two days out the first influenza victim

was buried at sea. The funerals continued every day of the crossing. In four days the ship had exhausted its medical stores, but the convoy was unable to stop to replenish the supply from other ships. Upon reaching a point south of Ireland the *Victoria* was detached and sent to Bristol, the nearest port, while the remainder of the convoy continued to its destination of Liverpool. By the time the *Victoria* docked in Bristol, on the 18th, 27 lives had been lost. Each death had been followed by a Board of Inquiry into the circumstances. As it became clear that men already in an advanced stage of pneumonia had been brought onto the ship the Boards' findings became more and more scathing in their remarks on the culpability of those who had permitted such a situation to develop.

Like the 1st Battalion before it, the 2nd underwent an isolation period in Britain. In their case the 40 officers and 665 other ranks settled down at Kinmel Park Segregation Camp near Rhyl, north Wales.¹¹

The 2nd Battalion, commanded by Major Norman Keith Cameron, was still in Kinmel Park when news of the Armistice arrived. As one of its veterans later noticed the unit was one of the very first to benefit from the cessation of hostilities:

Ten days later our battalion was on its way back to Canada! I suppose the fact that we were all together with our papers intact, that we had nothing to do, and that about the right amount of space was unexpectedly available on a transport standing in Southampton the authorities decided to get

rid of us at once. So after only one month in Britain we were being sent home.¹²

The 2nd Battalion returned to Canada in greater comfort than they had gone overseas, travelling on the liner *Aquitania*.

The formation of the 2nd Battalion was not end of the story either as a 3rd Battalion was also planned: a unit that was intended to be exclusively French-Canadian. Under the command of Major Paul Emile Ostiguy, the 3rd Battalion began recruiting at the University of Montreal. When recruiting was stopped on 19 November 1918 a total of 57 men had been enrolled. The unit was disbanded on 26 November.

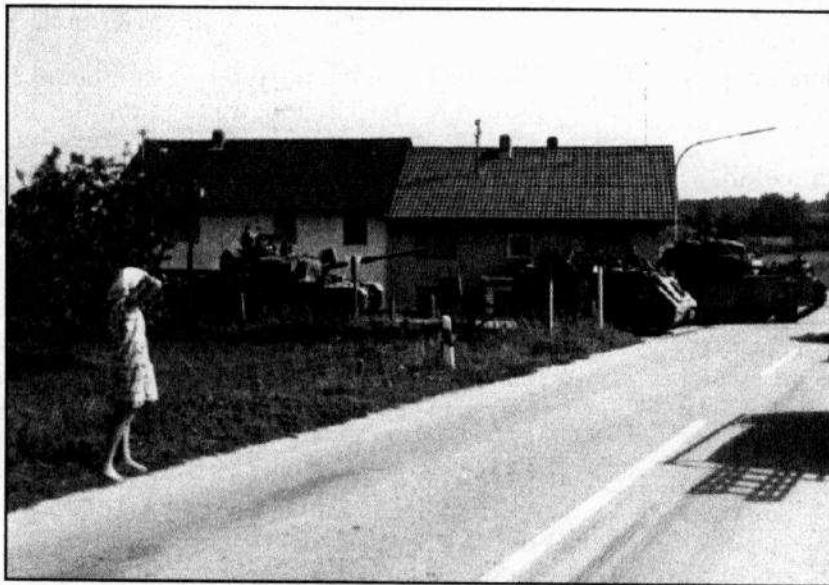
The Canadian Armoured Corps suffered a total of 36 fatal casualties during its short existence. A few of these were accidental, such as the mysterious case of a lieutenant from the 1st Battalion who disappeared from HMT *Cassandra* during the voyage home. By far the greater number of casualties (32) resulted from the influenza epidemic.

Canada's first experience with armour was quickly ended and just as quickly forgotten. There would be no more Canadian armoured units until 1936. Even then only six tank battalions were created, all being reserve units, and a small establishment called The Canadian Tank School was raised to oversee their training. It was not until 13 August 1940 that the Canadian Armoured Corps was recreated, this time to stay.



Footnotes

1. Lieutenant-Colonel James Edgar Mills, DSO, RCA was a career officer. As well as armour he was interested in flying and was a qualified observer. Attached to the British in Gallipoli as a battery commander, he had won a DSO for gallantry before returning to the UK to run Canadian artillery training in that country. Here he ran afoul of Canadian officialdom, an event which resulted in his 'exile' to Tank Corps headquarters in France.
2. Lieutenant-Colonel Richard Lippincott Denison, OBE, Winnipeg Rifles had been wounded in France in 1915 serving with the 8th Battalion, CEF. He had been in command of the Canadian Machine-Gun Depot in Toronto when selected to organize the 1st Battalion.
3. The Tank Tatler, Volume 1, Number 7, p4.
4. The Tank Tatler, Op. cit., p26.
5. The Tank Tatler, Op. cit., p26.
6. The Mark V's 29 tons were propelled by a 150 hp engine producing a speed of 5 mph. Its armament comprised two 57 mm cannon and four machine guns.
7. The unit's track and field team wore a singlet with KANTANKS emblazoned across the front.
8. The Canadian Armoured Corps was authorized on 13 November 1918. Needless to say it remained a strictly paper entity.
9. One of these soldiers was future Canadian diplomat Hugh Keenleyside (1898-1992). Another was the future co-discover of insulin, Dr. Charles Best (1899-1978).
10. Keenleyside, Hugh L., Memoirs: Volume 1 Hammer the Golden Day, McClelland and Stewart Ltd., Toronto, 1981, pp 119, 120.
11. Kimmel Park was to become notorious for a series of disturbances on 4 and 5 March 1919. The soldiers awaiting repatriation were regularly warned for imminent departure only to have their sailing dates cancelled or postponed time again. Frustration grew to anger and eventually rioting, resulting in five deaths, 23 soldiers wounded and 78 under arrest.
12. Keenleyside, Op. cit., p127.





Corps Victoria Cross Winners: Maj. David V. Currie



Major David Vivian Currie
29th Canadian Armoured
Reconnaissance Regiment
(The South Alberta Regiment)



David Vivian Currie was born in Sutherland, Saskatchewan, on the 8th of July 1912. He attended King George Public School, the Central Collegiate and Moose Jaw Technical School where he learned his trade as an automobile mechanic and welder. In 1939 he joined the militia and in January 1940 he enlisted in the regular army with the rank of Lieutenant. He was promoted to Captain in 1941 and to Major in 1944. After the war he spent eight years in Baie Comeau, Quebec, as equipment superintendent of a paper company. In 1953 he moved to Montréal and joined a manufacturing company where he became vice-president. In 1959 Prime Minister John Diefenbaker appointed him Sergeant-at-Arms of the House of Commons. He died in Ottawa on the 20th of June 1986 and is buried in Owen Sound, Ontario.

"In Normandy on the 18th of August, 1944, Major Currie was in command of a small mixed force of Canadian tanks, self-propelled anti-tank guns and infantry which was ordered to cut one of the main escape routes from the Falaise pocket.

Strong enemy resistance in the village of St. Lambert-sur-Dives held up this force, and 88mm guns knocked out two tanks. Major Currie immediately entered the village alone on foot at last light through the enemy outposts to reconnoitre the German defences and to extricate the crews of the disabled tanks, which he succeeded in doing in spite of heavy mortar fire.

Early the following morning, without any previous artillery bombardment, Major Currie personally led an attack on the village in the face of fierce opposition from enemy tanks, guns and infantry, and by noon had succeeded in seizing and consolidating a position halfway inside of the village.

During the next 36 hours the Germans hurled one counter-attack after another against the Canadian force, but so skilfully had Major Currie organised his defensive position that these attacks were repulsed with severe casualties to the enemy after heavy fighting.

At dusk on 20th August the Germans attempted to mount a final assault on the Canadian positions, but the attacking force was routed before it could even be deployed. Seven enemy tanks, twelve 88mm guns and forty vehicles were destroyed, 300 Germans were killed, 500 wounded and 2,100 captured. Major Currie then promptly ordered an attack and completed the capture of the village, thus denying the Chambois-Trun escape route to the remnants of two German armies cut off in the Falaise pocket.

Throughout three days and nights of fierce fighting, Major Currie's gallant conduct and contempt for danger set a magnificent example to all ranks of the force under his command.



On one occasion he personally directed the fire of his command tank on to a Tiger tank, which had been harassing his position and succeeded in knocking it out. During another attack, while the guns of his command tank were taking on other targets at longer ranges, he used a rifle from the turret to deal with individual snipers who had infiltrated to within fifty yards of his headquarters. The only time reinforcements were able to get through to his force, he himself led the forty men forward into their positions and explained the importance of their task as a part of the defence. When, during the next attack, these new reinforcements withdrew under the intense fire brought down by the enemy, he personally collected them and led them forward into position again, where, inspired by his leadership, they held for the remainder of the battle. His employment of the artillery support, which became available after his original attack went in, was typical of his cool calculation

of the risks involved in every situation. At one time, despite the fact that short rounds were falling within fifteen yards of his own tank, he ordered fire from medium artillery to continue because of its devastating effect upon the attacking enemy in his immediate area.

Throughout the operations the casualties to Major Currie's force were heavy. However, he never considered the possibility of failure or allowed it to enter the minds of his men. In the words of one of his non-commissioned officers, 'We knew at one stage that it was going to be a fight to the finish but he was so cool about it, it was impossible for us to get excited.' Since all the officers under his command were either killed or wounded during the action, Major Currie had virtually no respite from his duties and in fact obtained only one hour's sleep during the entire period. Nevertheless, he did not permit his fatigue to become apparent to his troops. Throughout

the action he took every opportunity to visit weapon pits and other defensive posts to talk to his men, to advise them as to the best use of their weapons and to cheer them with words of encouragement. When his force was finally relieved and he was satisfied that the turnover was complete he fell asleep on his feet and collapsed.

There can be no doubt that the success of the attack and stand against the enemy at St. Lambert-sur-Dives can largely be attributed to this officer's coolness, inspired leadership and skilful use of the limited weapons at his disposal.

The courage and devotion to duty shown by Major Currie during a prolonged period of heavy fighting were outstanding and had a far-reaching effect on the successful outcome of the battle." (The London Gazette, 27th November 1944).





Corps ADJT'S Corner



It's a bit difficult to sum up all the things that have happened since I have taken over the duties of keeping the Corps connected. This remains the greatest challenge of this office – the need to constantly revise our lists of "who's who". Your continuous input is solicited and very much appreciated!

We have made some electronic advances in the last year – most notably the launching of the School Website. For you "surfers" out there, our site can be found at: www.brunnet.net/armourschool. The School is justifiably proud of this site, and there are some good Corps opportunities here. A click on our e-main address will immediately put you in contact with me – just indicate that your note is for the Corps Adjt and **flash** – I've got your message! It's a great way to stay in contact. The actual e-mail address is ac_qm_gagetown@brunswickmicro.nb.ca. I can also be found by "snail mail"

(when the posties are delivering) at the School address. The DND e-mail system is also a winner (when it is up and running) – address is [Capt R Scott@ArmdSch@Gagetown](mailto:CaptRScott@ArmdSch@Gagetown). My telephone number is (506)422-2000 extension 1653. CSN is 432-1653. Lastly you can fax me at (506)422-1448 (CSN 432-1448) – I sound like an advertisement for CBC news don't I?

I encourage all to e-mail me for address changes, notifications of deaths, changes of command, requests for visits of our Colonel Commandant, MGen LaRose, notable events at your unit or just write and say Hi!. Check us out!

I'd also be interested in finding out if you would like to see a "Corps Adjt" page – some things that could appear are pictures of our memorial suite and the various trophies that we have displayed around the School. Also possible are some

photos of the Corps related kit shop items we sell here at the School. If you have any ideas – let me know.

The Corps conference this fall was a positive experience for me. I was able to renew many old friendships and tell a tale or two during breaks. The LdSH(RC) rear party treated us like gold and they did a first class job of looking after us all – well done! The overriding topic this year was money – or rather our collective shortage of it. There are some significant challenges for all of us in the coming year, but our association is squarely behind us and is busy working on our behalf. One of the expressions, borrowed from BGen Rad, typified the Corps response to this fiscal challenge – that being "when it's too tough for others – it's just right for us". Hang in there – better times will come!

One sad note at the conference was the departure of the Elgin Regiment from the Corps Family. Their long and faithful service to us all will not be forgotten. The Corps presented the Elgins with a wooden Corps emblem at the Conference, an emotional event. They have gone to join the ranks of the Military Engineers and we wish them every success in their new role as 31 Combat Engineer Regiment (The Elgins).

The Ontario Regiment, ever wary of "loose" Corps equipment, managed to "glom" onto an old Centurion tank crew commander's chair that was gracing the bar at



the Officer's mess here – rumour has it that it will be re-installed in the tank from where it came from – a recent acquisition apparently. Good luck on the restoration.

I haven't had any feedback on the issue of the Officer's mess kit braid dilemma that was discussed in the last issue of the bulletin. Given the fiscal realities being discussed at the Corps conference, I was reluctant

to raise the issue, as it truly paled in comparison to other things that needed to be discussed. (The real reason was that I wasn't looking forward to being "run out of town" because I raised a dress issue during a training discussion). I need some input from units out there – is this still an issue? If so, I will pick a more appropriate time to follow up – if not then we will let it go.

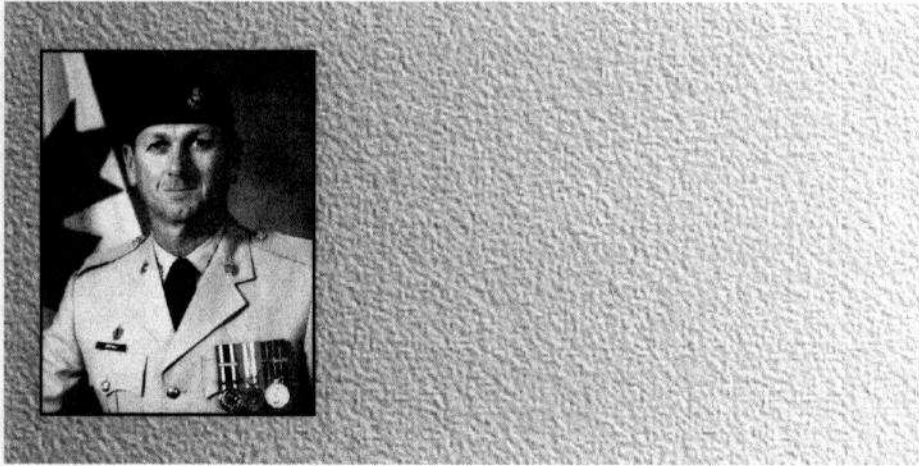
Again, please use me as your contact – anytime. If I can't answer your question, it won't take me long to find the answer – so stay in touch!

Cheers –
Capt R Scott





Corps RSM'S Comments



The Royal Canadian Armoured Corps Association (Cavalry) Conference was held in Edmonton this past October. The LdSH (RC) hosted this event and did an outstanding job.


For those who are not aware, the RCAC Association (Cavalry) Conference and the Armour Board are two separate events, however, the same personnel attend both. Over the past few years, the Director of Armour has scheduled his Armour Board to coincide with the Association Conference.

In today's restriction of budgets, this cuts down on cost and enables personnel to schedule their travel time more effectively. In the past, only unit COs attended, but now COs are encouraged to have their RSMs accompany them.

This year has seen an increase in the number of RSMs attending the Association Conference. As the Corps RSM, I was able to hold an informal RSMs' Conference. A major topic of discussion was an annual Corps RSMs' Conference. A number of

the RSMs felt that such a conference was a necessity. I agree and fully support the idea, however, there is no budget to cover a conference on our own. A second area of concern is a timeframe that would enable all unit RSMs to arrange their work schedules to attend a separate Corps RSMs' Conference.

A solution to the problem would be to combine the Corps RSMs' Conference with the Armour Board and the RCAC Association Conference. Next year's RCAC Association Conference is to be held in Gagetown from the 15th to the 17th of October 1998. With this in mind, I plan to set aside time to host all the RSMs. For those CWOs that are not employed as unit RSMs, the invitation for you to join us is open. But of course, you'll have to come up with your own funds to cover your costs.

I encourage all RSMs to attend and I look forward to establishing this as our RSMs' yearly conference. 

Chief Warrant Officer J.G. Brown
Regimental Sergeant Major RCAC



Letters to the Editor

On Total Force

As I watch another facet of Total Force disappear (8CH), I read with interest the articles of the last Bulletin. From these it is apparent that we as a Corps continue to struggle with the concept. The problems stem from a poorly articulated vision, faulty execution, and to some extent suspicion. But one thing is for certain, we are all to blame for where we are today.

Blame can be laid in a multitude of areas. Perhaps it was our collective leadership that has failed to take up the difficult challenges of the concept? Perhaps we were too lazy, finding many of the difficulties requiring more effort than we were willing to give? Perhaps it was the wrong time to try a policy that became overwhelmed by world events? Perhaps we have not given it enough time to engender a systemic change? Perhaps....

I read very little in the bulletin that leads me to believe my conclusions are wrong. The fact that several authors critically belabour certain points emphasizes the point that we have failed to change our mindset to meet our present structural and financial restraints. How can Total Force work in light of such narrow perspectives. This may be a result of the suspicions that were built up over many years of operating along separate force structure lines. What is missing is the willingness and the vision to make the concept work together! LCol Ward said it best when he noted that we must "think globally, but act locally."

I was heartened to see many positive discussions. Most authors raised valid points. Yet the message is best summarized by CWO Van Iderstine who brings us down to the real point of the issue. We are one force charged with serving our country. Some have different jobs to do, some different means. But in the end, if we all respect everyone work, efforts, and capabilities then we will be able to make a more effective Total Force.

C.D. Claggett
Major
A Sqn, 8CH (PL)

On Ethics and Leadership

In surveying the various journals of the Canadian Army in the inter-war years, one is struck with the very lively debates that are carried on in their pages through an exchange of letters to the Editor. It is common to see names such as Simmonds, McNaughton and the like vigorously defending or attacking the opinions of others. This is an art that modern army officers seem to have forgotten. Or perhaps they have been discouraging from entering into these debates for a variety of reasons.

I was therefore most pleased to see the letter from Captain K. Berube in Volume 29 No.2, 1996 commenting on my earlier article on military advice. Not only was I pleased to see that Captain Berube had read my article, I was also delighted that it inspired her to respond.

I think that Captain Berube strikes at the heart of the matter when she says that military advisors should never "compromise what they believe to be a feasible military plan of action". However, I am not certain that the situation is always that black and white. It must be remembered that military advice is offered in many instances to politicians and diplomats whose objectives are not always the same as those of the military. To them, the art of the possible which includes compromise is often more important in achieving their strategic long term goals. Therefore, can military advice simply be offered in a "take it or leave" approach? That is, what do we (those giving advice) do when politicians and diplomats reject out of hand our best military advice because they don't like it? Do we crawl away and let them sin? Do we find other options? How do we as leaders then

protect the lives of our soldiers if our advice is not accepted?

I have no answers for these questions; questions which confront me regularly in my work as a Military Advisor. I do know that they are very real questions that have a profound impact on the lives of many soldiers. There are no simple answers but let me assure you that I have not stopped looking for them. I am also encouraged that Captain Berube, and hopefully her peers, will continue to search for the answers to the very difficult leadership and ethical questions that our profession faces on a regular basis.

Perseverance

J. Michael Snell
Colonel
Military Advisor



Reserve News

Reserve Armour soldiers nominated three of nine winners of the biennial Canadian Forces Liaison Council Employer Awards. These awards, present by His Excellency the Governor General at a ceremony in Ottawa this past January, recognize outstanding support given by employers to their reservist-employees. Categories this year included best national and regional employer, best supporter of employees participating in peacekeeping missions and employer who has done the most to hire reservists. Employers who were nominated but did not win awards were given certificates at local ceremonies thanking them for their support of the Reserve Force. No mention was made of the fact that they had been nominated for, but did not win, awards.

The judging was done by an independent panel of civilian employers from the Council itself. Also participating were a number of CFLC military liaison officers. These are former reserve COs who work on a class A basis, serving as the link between the civilian Council members and the military. Nominations came from all four environments (Land, Air, Sea and Communications) and most arms and services.

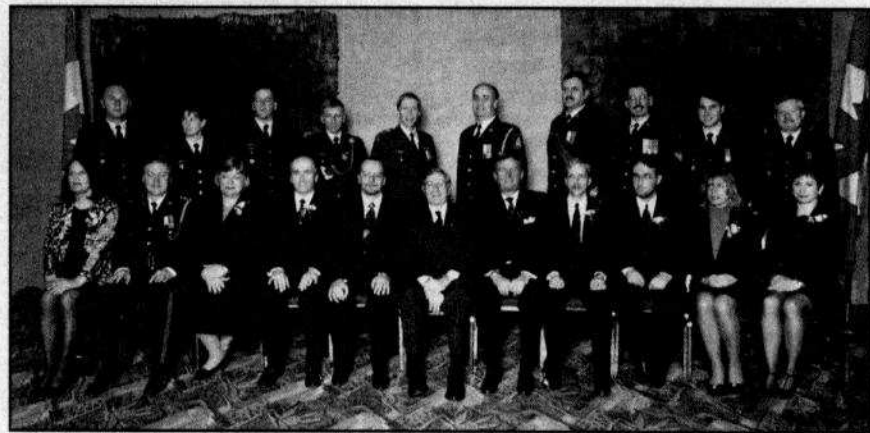
If your employer has done anything to help you as a reservist, such as giving time off for training, showing flexibility in scheduling holidays, etc., nominate him or her for an award. Size doesn't matter. Employers with as few as 10 or as many as twenty thousand employees have won in the past. If there are other reservists working for the same employer, they can co-sign the nomination or send in their own

How do you nominate? See your regimental employer support (ES) representative. Every unit has one. Or at least should have one. That individual has a binder called *Employer Support: A Unit Guide*. There you will find a nomination form and further instructions. Read them, fill out the form and mail it to us. That simple.

If you have any questions, call us at 1-800-567-9908 any time. Be ready to leave

a message with your name, telephone number, the best time to call you back (at home or work) and a short statement of the information you seek. If you have access to the CF intranet, you can contact the undersigned by using it.

Borys Gengalo, Maj
Events Officer, CFLC
Latterly 21C FGH



3rd from left Standing: Lt K. Bertoia, Elgin Regt (who appears to be catching forty winks)
Seated: Mrs Nancy Howcroft, Manager, Canada Trust London Branch 001
5th from left Standing: LGen Kinsman, ADM Per, representing the CDS Centre,
Seated: His Excellency Romeo LeBlanc, Gov-Gen
Seating to the right of the Gov-Gen is J.C. Eaton, Chair of the CFLC
3rd from right Standing: MCpl J. Nayduck, Windsor R
Seated: Mr D. Sinclair of BSAF
2nd from right Standing: WO D.A. Bergt, B Sqn SALH
Seated: Ms Claudia Monteith, UPS

THE ARMOUR-NOMINATED WINNERS WERE:

AWARD	RECIPIENT	ORGANIZATION	NOMINATOR
Top Employer: Ontario	Mrs Nancy Howcroft, Branch Manager	Canada Trust, London Branch 001	Lt Kevin Bertoia Elgin Regt
Peacekeeping	Mr D. Sinclair	BASF	MCpl John Nayduk Windsor Regt
Hiring of Reservists	Ms Claudia Monteith, Manager for Western Canada	UPS	WO D.A. Bergt, B Sqn SALH



On Tank Trainers

It has been almost 8 years since I changed hat badges from 8CH to PSEL but I still read the Bulletin when I can. A photo in the Vol. 27 No 1, 1994 issue caught my interest as it had a picture on the front cover of a Cougar on patrol in Somalia. What was of particular interest to me was that it was carrying a spare tire in the exact position I had suggested 10 years previously in an article "Should the AVGP Carry Its Own Spare Tire?" which appeared in the Armour Bulletin Vol. 18 1985. (Note - All back issues of the Bulletin can be found on the Army Lessons Learned CD). The purpose of this letter is not to say "I told you so" but to pose this question to the Armour community. Now that we have operational experience with AVGPs in Somalia and Bosnia, should AVGPs have a mount to carry a spare tire? With the pending introduction of the 8 wheel Coyote this may be an appropriate time to revisit the problem.

When I was with the 8CH, we seemed to have tire punctures every exercise. It seemed somewhat counter productive for the crew to have to wait for the recovery vehicle to deliver the tire when they ended up doing the actual work of changing the tire. If they had the tire they could have changed it themselves without tying up the Husky. The run flats are good in an emergency but degrade rapidly when in use and have to be replaced. I am sure that you would rather having a supply truck carry more bullets or fuel than just spare tires that could be already on the vehicles. One of the reasons that NDHQ gave when they turned down my suggestion was that the Cougar was a "tank trainer" and would never be in an operational theatre. This was also the reason



A LdSH(RC) Battle Group's Cougar on patrol in the Canadian Area of Responsibility.

they bought a limited number of spare tires with no consideration for a war reserve. I hope that the Coyote program has calculated the requirement for spare tires in an operation. With recce dets across the whole brigade or division frontage, it will be harder to get spares to them when they need them.

The other lesson we can draw from this is "never say never". The debate of whether the Cougar could be used in operation was a very emotional one for the Corps in the eighties. Very senior officers assured us that Cougars would never fire a shot in anger. Well they have and the world did not stop turning. It is somewhat ironic that the Cougars have now been deployed overseas on several operations

while our Leopard tanks stay in Canada as "Cougar trainers".

In closing, carrying spare tires is not a very sexy topic but a real concern for those crews who have to go into harms way in an armoured car with rubber tires. I would be interested in hearing from you especially if you have had found it useful to carry your own spare tire in operations. Oh yes, and to that individual that wrote to the Bulletin years ago criticizing my article - "I told you so".

Captain Frank Kuschnerit
Personnel Selection Advisor
Canadian Forces Recruiting Centre
Gagetown

Notes from the Editor

1. The Armour Bulletin can be found at the Armour School website. Some readers have had problems accessing the website. We believe the problem has been rectified. It appears that only Netscape Navigator users could not access the website. As of now you should have no problems. If you

have any comments or questions please address me through the website.

2. I have received a number of letters from people who want to get a subscription to the magazine. At this time the only way to do so is to get a lifetime membership to the RCAC

Association (cost \$100.00). All Armour Corps units and a few external units receive copies of the bulletin so you can get access through them.

Allan S. Finney
Captain
Editor



First of all, congratulations on a great magazine, keep up the good work.

Your e-mail address does not work (rcacsc-gagetown@brunswickmicro.com) from the Armour Bulletin Volume 29 No. 2, 1996 edition.

Just a note to mention an error in the Armour Bulletin Volume 29 No. 2, 1996

edition. On page 44 is an article on the VC winners of the Armour Corps. To be technically correct, there has only been one winner of the VC since the Corps' formation in 1940. That was Maj DV Currie in 1944. The other error is that Maj DV Currie was not SALH, but SAR (The South Alberta Regiment). Although the SALH does perpetuate the SAR,

the South Alberta Light Horse was not formed until 1954, with the amalgamation of the South Alberta Regiment, 41st Anti-Tank Regiment and the 68th Anti-Aircraft Regiment.

Yours truly,
CWO John G Szram, RSM, SALH

The Regimental System

The very thought of the Regiment conjures deep rooted feelings of comrades in arms, a united band facing common adversity, an extended family, a home and most importantly, something worth fighting, and if necessary, dying for. It is within the Regimental System that we are trained tactically, inculcated with the ideals, ethics and held to an unwritten code that expects service before self and loyalty throughout the organization. Additionally, the demands of the Regiment encompass, as well as embrace, our own families within its larger context. The Regiment is also the vehicle through which we are rewarded with increasing responsibility through appointments and promotions. In its ideal form, an effective, proven system that balances hierarchical requirements and human forces in a combination that produces cohesive warfighting units.

But what about the Regiment in less than ideal circumstances? Arguably, the leadership of regiments at all levels, moves in a sine wave. At any point in time, one regiment will have overwhelming strength in its officer or NCO cadres, while another may only be getting by, however, in a truly regimental system, there is little scope for manoeuvre. Would it not be better to benefit from the stable of the strong to augment the weaker? And what should

we do with the soldiers of a regiment that has been reduced or taken out of the order of battle? Can they ever become fully integrated into another regiment within a truly regimental system? And if they are, what resentments fall out from an influx of newcomers? Do we then have that human balance that makes the Regiment work? Would we be better off with numbered regiments under one cap badge where the best of the Corps are advanced? These are difficult questions that should be considered at a time when just such events have taken place.

When one considers the organization of units, one must also ask if the current groupings are correct. Most European armies favour mixed combat units, where tanks, infantry, engineers and artillery are permanently grouped together. Would such an option be viable in Canada? It has worked to some extent in Australia, who like us have about the same population, GNP and a similar military heritage. In their army the Royal Australian Armour Corps drives and fights all armoured vehicles, including APCs. Could a similar arrangement work for us? Should we be looking at mixed combat arms units under one cap badge? Is there a compromise solution?

Finally, there are the questions of scale. Although we are bound by the ties of the Royal Canadian Armoured Corps, one might argue that we are more akin to a federation rather than a cohesive body. Of course, this is logical in terms of the Regimental system, but at what cost? The entire regular component of our Corps is roughly the size of one regular infantry regiment. Whereas the other combat arms are unfettered by cap badges, does our structure put us at a disadvantage politically, particularly in uncertain times? What would be the implications for the reserves?

The theme for the next Armour Bulletin is the Regimental System. Above I offered some topics and concerns that may provide food for thought. Of course, any other ideas are welcome. It is our desire to publish the next Armour Bulletin in Nov/Dec 98, however funding has been cut and it is a possibility that this may be our last edition. We have received excellent reviews, including positive comments from the current CDS, and hope to continue publishing a quality forum for your ideas. Therefore I ask that you express your support and the need for our Corps journal.

Thank you for your support.
Major L.J. Zaporzan
Managing Editor