



Armour Bulletin



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The Armour Bulletin

The Armour Bulletin is published under the authority of the Royal Canadian Armoured Corps. It is published twice a year to provide information of professional interest and as a forum for the exchange of ideas and opinions. Views and opinions expressed are those of the authors and do not necessarily reflect official DND policy. Contributions, suggestions, and comments on articles in the form of letters to the editor are most welcome. In this regard, the editor reserves the right to edit or reject any submission. Unless previously arranged all submissions will be considered copyright of Her Majesty. Correspondence should be addressed to:

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Armour Bulletin Writer's Guide

Subjects

We are interested in all subjects relating to Armour affairs that would be of interest to Armour personnel. This would include articles on R & D, personnel, equipment, training, tactics, and history

Style

In that a readable article is preferred, fit the style to the subject matter. Articles should be double spaced, typed on one side of the paper. Articles should normally not exceed 2,000 words. Only material of an unclassified nature should be submitted. Articles will be published in both official languages.

Illustrations

Art work-sketches, black and white or colour photographs, maps, line drawings, etc. enhance the attractiveness and understanding of an article. They must be sharp and of high contrast. Washed out, grey, fuzzy and greatly enlarged photos reproduce poorly. Do not submit photocopies.



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Armour *Bulletin*

CANADA

In **M**emorium

GENERAL

On 11 November, 1992, as we remembered our fallen comrades, Mrs Clara Ellen (Larry) Worthington, affectionately known as "the mother of the Corps", passed away. No public funeral was conducted; however, a memorial reception to celebrate her life long service was held at the Army Officers mess in Ottawa on 24 November, 1992. The Corps was represented in Ottawa by our Colonel Commandant Brigadier-General (ret'd) G.G. Bell OC, MBE, CD. He and Brigadier-General (ret'd) S.V. Radley-Walters CMM, DSO, MC, CD, made the following remarks in memory of Mrs Worthington at the reception.



Mrs. Clara Ellen (Larry) Worthington

The Colonel Commandant

I want to express to the Worthington family on behalf of the members of the Royal Canadian Armoured Corps our deepest appreciation for the life of Clara (Larry) Worthington who, throughout her time among us, contributed so much to the well-being of members of the armed forces and their dependents and to many others in the broader community, wherever she lived.

Within the special environment of the Canadian Army and the Canadian Forces, she was genuinely concerned from the earliest days for the well-being of the soldiers, their wives and their families. She contributed much as a role model for others and as a source of encouragement and understanding in assisting those undergoing the many separations which occur in the services during war and peace.

During General Worthington's military life; his lengthy services as our Colonel Commandant; and his work in civil defence and emergency measures, she was a frequent and welcome visitor to the various Regiments and the Armoured Corps School. After his death in 1968, she maintained regular and active contact with the Corps, particularly by her attendance each year until 1990 at the annual officer cadet graduation ceremonies at the Armour School and Combat Training Centre in Gagetown where she presented

the Worthington Sword to the leading cadet. That same year, on the occasion of

the 50th Anniversary of the authorization of the Royal Canadian Armour Corps, she joined the Governor-General, the Right Honourable Ramon Hnatyshyn, on 30 September, 1990 in the unveiling of a historical placque to mark that occasion in Worthington Park, CFB Borden.

To all who met her, she was always a gracious and kindly lady who made one feel welcome. That warmth of personality was ever present.

Last June in response to our greetings on her 90th birthday she wrote: "The service, particularly [the] Armour Branch has been very good to me for seventy years, the greater part of my life, and claims deep affection and happy memories."

We who were privileged to know Larry are better for that experience and are thankful to be able to share in the celebration of her life — the life of an outstanding Canadian.

BGen S.V. Radley-Walters

Mrs Worthington truly became the mother over her Armoured family when General Worthy became Colonel Commandant in 1949. Her gracious manner and penetrating mind created that mother image which gained our love and respect over the years which has remained a constant symbol to all of us. Across Canada and overseas the four Regular Regiments, the Corps School, eighteen Militia Regiments and the Royal Canadian Armoured Corps Association mourn her loss.

Many will have wonderful memories of your associations with Larry and Gen Worthy over the years, especially during those Corps Weekends in the early days at Camp Borden. The Graduation Parades, the displays, the presentation of the Worthington Sword, the Cadet's Formal Ball, the visits to the Sergeants' Mess, meeting the Corporals at the Centurion Club and the Troopers at the Sherman Club. There was great excitement then and you will recall that Larry and Worthy were always at the

forefront and we came away with feelings of pride and accomplishment. Looking back now I believe that those Corps Weekends were characterized by an atmosphere of home coming and a happy reunion for Larry with those for whom she cared very much. The esteem and affection for her even by the youngest soldiers was very genuine and perhaps unique in Canada. For the past twenty five years since General Worthy's death Larry continued to support the Armoured family. In spite of failing health and advanced years she continued to respond to requests to participate in many army functions and she faithfully attended the annual Graduation Parade at Base Gagetown to personally present Gen Worthy's Sword to the top Armoured Graduate.

Throughout her lifetime she established a standard of social behaviour and devotion to duty, through her example and discipline for all of us to follow. On Remembrance Day 11 Nov this year Larry Worthington had completed more than half century of devotion and love to our Armoured Corps. She witnessed its birth and early founding in 1940 and at Camp Borden in 1990 she officiated at its 50th Anniversary.

She has been a spirited and venerable lady, who has captured our hearts and our love and her ashes will rest beside General Worthy in Worthington Park where together their spirits will continue to hover over their beloved Corps.

Colonel Commandant's Foreward



Maintenance of the Aim

Much has been done by the Commander Land Forces Command and the Land Forces Development staffs in the past year to overcome the many uncertainties which confronted the Army, especially the Armour branch, following the September 1991 and April 1992 defence policy announcements including the decision to withdraw our stationed forces from Germany.

It has now been recognized officially that the future combat effectiveness of the Army requires the retention and inclusion in the force structure of the *core capabilities*, including armour, which will permit the combat arms team to operate successfully in the wide variety of tasks implicit in the land force mission. The Defence Management Committee (DMC) of NDHQ has endorsed the principle elements of the Army's armour plan. In doing so, they strongly ratified the need to retain an effective armour capability and acknowledged that our current armour capability had serious performance shortcomings which must be improved. It was also agreed that the army must be prepared to deal with operational tasks throughout *the spectrum of operations*. Consequently, the establishment of armoured regiments with a *mixed fleet* of armour equipments was seen to be the best course of action for the Canadian Army, since it improves flexibility and permits forces to be tailored for the intensity of operations.

DMC has agreed, therefore, that Canada's armour capability should be comprised of:

Product improved Leopard tanks to deal with the upper end of *the operational spectrum*; and

A new Armoured Combat Vehicle (ACV), which will replace the Cougar, to meet

requirements in the lower end of *the spectrum*. The ACV is to be strategically transportable in fast sea lift vessels.

In addition, the Armour branch is also to maintain effective armoured reconnaissance capabilities with such elements to be equipped with the new reconnaissance combat vehicle (RCV), the General Motors LAV 25, specially equipped for the reconnaissance mission, including modern surveillance and optimum self-defence suites.

As a result of these decisions, the way ahead is now much clearer, but it is not free of obstacles, as there are still many other problems to be overcome before the Army's requirements are met. Since much solid effort was put into defining and presenting the armour analysis and positive results have been achieved, it now behooves us to press on to obtain real implementation. It is essential that we in the Army, especially the Armour branch, in concert with our area commanders and colleagues in the combat arms, consolidate our hard won position by maintaining consistency of logic and purpose to see these important Army projects through to implementation.

All members of the Armour branch are enjoined, therefore to rally round to support fully the approved Armour plan and to provide the concentrated effort and commitment to ensure the effective implementation of the armour core capability component of the total force Canadian Army. *With a strong team approach, we can ensure maintenance of the aim!!*

G.G. BELL, Bgen (RET)
Colonel Commandant Armour

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irector of Armour's Foreward

It is indeed a privilege to address all members of the Armour branch through the Armour Bulletin. A lot has transpired since the last Director's message. No sooner had the Armour Shop moved to St-Hubert with Colonel Peter Leentjes as Director, than he was assigned to United Nations duties. This necessitated appointing an interim Director. As Land Force Command Headquarters now straddles Ottawa and St-Hubert it made eminent sense to return the armour leadership to the Director of Land Force Development in Ottawa. However, the Armour Shop and its memorabilia for the most part still reside at St-Hubert—not a tidy arrangement, but a workable one. The plan to establish all combat arms advisors at St-Hubert remains in force, hence the directorship will most likely revert to Colonel Leentjes upon his return in the fall of 1993.

The theme of army-in-transition has become reality. The Force Reduction Programme (NCM), the return of the 8th Canadian Hussars to Canada with their embodiment into the Reserves, and the manning of armour reserve units with over 250 regulars have touched the lives of many, if not all in the Branch.

With much nostalgia I had the bitter-sweet task of signing every retirement scroll for those leaving the Branch in 1993. Many of your names restored memories of training areas, dark nights, wet woods, and that indefatigable cheerfulness that is your hallmark. There is part of me that does not wish to see you go as I wish you every happiness. Thanks for making the lives of we who remain so much richer.

On a more positive note it is confirmed that all Leopards will return to Canada and be

distributed to four locations: Wainwright, Petawawa, Valcartier, and Gagetown. In this manner all four Area Commanders will have the means to generate general combat forces with the requisite skills.

Before his retirement the army commander, LGen Gervais, ensured that the Armour Way Ahead Plan was endorsed by Defence Management Committee—the highest managerial authority in the department. At the December 1992 meeting, the Committee acknowledged armour as being an essential combat function of the army, and permitted the inclusion of a Leopard Mid-Life Upgrade project as well as that of the Armour Combat Vehicle into the Defence Services Programme. Once the Land Requirements staff have finalized the option analysis more will be forthcoming. I would caution all of us not to allow our own views to become fixed while these projects are in the embryonic stage.

The Light Armour Vehicle Recce Project is progressing well. Within three years the Armour School should be teaching this vehicle and its advanced sensor suite to the first students. The training simulation currently being developed should be particularly gratifying to the generation raised on computers.

Canada's contribution to the maintenance of world stability through UN sanctioned peacekeeping missions is making significant inroads into armour Regiments. 12e Régiment blindé du Canada has deployed Major Guy Maillet's squadron with 23 Cougars on UNPROFOR in the former Yugoslavia. Major Mike Kampman's Cougar squadron from the Royal Canadian Dragoons finds itself patrolling the Somalia-Ethiopian border. Should Canada's current

level of commitment be maintained then the Lord's Strathcona's Horse is likely to form the base for a major unit rotation to UNPROFOR in spring of 1994. Sustaining these missions is expensive, in material and human terms.

The Cougar was purchased as a training device and as such was not entitled to operational stocks and spares, hence supporting almost 40 Cougars on operations will require sacrifices back in Canada. Conducting collective training and supporting National Rank and Qualifying Schools in the remainder of this year will be difficult. However, there are solutions.

During the oil embargo of the early 1970s I served with the 2nd Royal Tank Regiment. Due to petroleum restrictions fall exercises were conducted on foot. Many aspects of collective training that had been pushed aside because of tank maintenance were revisited. Walking a trace with the entire tank crew revealed misunderstandings from which many benefited. Spending a day fighting through the objective in slow time with an infantry section cemented manoeuvre and fire coordination drills. Work on this.

Separation from family is never pleasant, but it is made easier with regimental support and a sense of belonging to a community. For we who remain in Canada the onus is on us to assist wherever we can. Thank you, spouses and children for supporting your loved ones. Your contribution to peacekeeping is significant.

The times in which we live can be characterized by the adjectives: transition from one of forces-in-being to one of force generation. At the same time the Branch is contributing to unprecedented levels of UN missions, but this should not daunt us.

As we move from bound to bound remember the essence of the crew commander's appreciation:

- Where am I going?
- Where is my enemy?
- What is the best route?
- What are my actions if fired upon?

Watch out for the swamp at Scotty Dog Woods!

H.J. Marsh

Colonel Director of Armour

Editor's corner

LETTERS

Dear Editor,

In a recent issue of your magazine there was an article on Victoria Cross winner, Lcol David V Currie. Please allow me to pass on some slight criticism.

Lcol Currie was awarded the VC while he was a member of The South Alberta Regiment. To that end it may have been more suitable to have included the badge of that unit rather than the South Alberta Light Horse. Although the SAR is counted among the ancestors of the present Reserve regiment, The South Alberta Light Horse (RCAC) was created by the conversion, amalgamation and redesignation of the 41st Anti-Tank Regiment (RCA), the 68th Light Anti-Aircraft Regiment (RCA) and the South Alberta Regiment (infantry) on 28 sept. 1954.

The more glaring error, however, is that your article shows Lcol Currie as residing in Ottawa, David Vivian Currie passed away on 24 June 1986 and is buried at Owen Sound, Ontario.

It is important, in my opinion, that we need to be reminded periodically of Canada's awards on the battle field, specifically since there are now only two Canadian Victoria Cross winners left. Thank you for commemorating Lcol Currie. It is hoped that more such articles will appear.

Alex van Rooyen, CD
Chief Warrant Officer
The South Alberta Light Horse

Reply

A picture of the South Alberta Regiment's badge was not available when the issue in question went to print therefore we felt that it would be appropriate to include the South Alberta Light Horse (RCAC) in its place.

Regrettably the publication from which we draw our information for the Victoria Cross articles is slightly dated. We apologize for the mistake regarding Lieutenant Colonel Currie's residence and thank you for bringing it to our attention.



Battle Groups to Regiments: A new Canadian Concept

by Captain S. Dubreill

The battlefield of the future will be a fluid, intensely violent environment. Operations will be carried out 24 hours a day. In order to defeat the highly mobile enemy, groupings of armour and infantry will be created



and recreated. In the maelstrom of battle, the leaders and soldiers of these groups will be expected to put into practice standard operating procedures and carry out missions of all nature requiring split-second coordination. The effectiveness of these wartime groupings in this new environment will depend upon their peacetime training.

To maximize this training, permanent groupings should be created changing today's one branch units into tomorrow's combined arms Regiments.

The Modern Battlefield a New Threat

The modern battlefield is and will be vastly different than the battlefields of the last major conventional conflicts. The technology of war has improved the way in which battlefield violence is inflicted. Improved weapons capable of greater rates of fire, greater ranges and greater damage have increased the lethality of war. The introduction of night vision devices and thermal imagery has turned the battlefield into a place where war is waged 24 hours a day.

The strain, both physical and physiological, of sustained operations in such an environment will be enormous. Stress casualties as in past conflicts, will be a part of battle. It is under this imposed stress environment that temporary combat groupings are expected to fight and coordinate their activities.

While temporary groupings have been successful in past conflicts never have they had to function in such a violent rapidly changing pace.

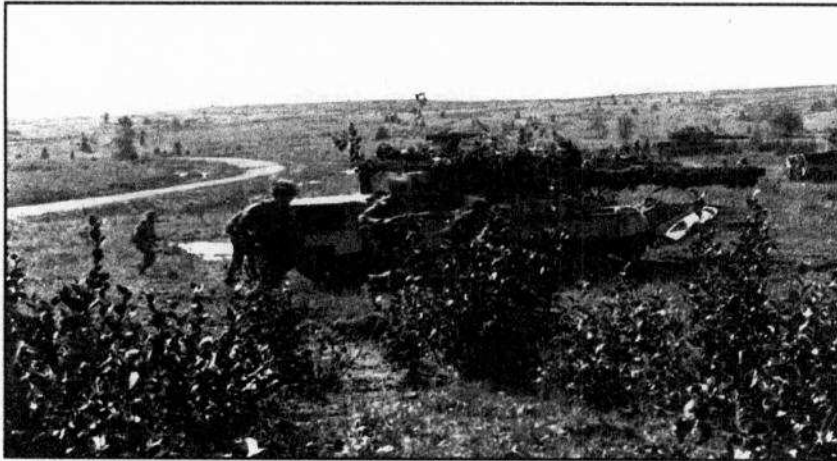
The modern battlefield and a heavily mechanized enemy have and will continue to change the character of battle. The evolution of tactics and technology and the increase in flexibility caused by this evolution forces us to change the way we will fight future conflicts.

Current Doctrine Battle Group/Combat Team

To increase the effectiveness of our forces in battle, temporary groupings are formed depending on the mission. These groups are made up from elements of Armour Regiments and Infantry Battalions which form the manoeuvre group of these combined arms teams. While these combined arms teams are able to effectively use the combined characteristics of their component branches, the fact that they are formed shortly before entering a conflict reduces unit cohesiveness and effectiveness. "While battlefield conditions often impose a degree of cohesion on military groups, the development of unit cohesion in peacetime tends to enhance the combat effectiveness of the units concerned in their first battles"¹

Combined arms units are the units of the future. Their self contained composition will give them the ability to orient towards the enemy, react or seize the initiative more rapidly than before due to standard operating procedures (written and unwritten) which will have been practised during training. In the confusion of battle caused by violence and intermittent communications, the combined arms unit will perform more effectively due to it's combined arms training and cohesiveness.

Our combat efficiency would be greatly increased if the present use of temporary combined arms groupings is changed to the formation of permanent all arms units. This will in turn improve training, coordination and unit cohesiveness.



Leopard tanks accompanied by dismounted infantry going in on the assault

.....

Regiments

The Regimental system as it exists today is one of the obstacles impeding appropriate all arms training. Armour and infantry units each have their own training cycles. These cycles converge during brigade level summer concentrations where perhaps two weeks (maybe less) are allocated to combined arms training. Given the level of coordination necessary to be successful in such operations, two weeks is not enough time.



Dismount! Dismount! Dismount!

.....

This is not to say that the regimental system has no place on tomorrow's battlefield. The regimental system, through its many characteristics, provides its soldiers with something to identify with. The regimental system has operational-administrative characteristics, institutional characteristics, symbolic and attitudinal characteristics.²

Through day to day training in garrison, or while on exercise, soldiers become familiar with each other. Friendships which often last a lifetime are developed. The importance of the familiarity which develops among soldiers of the same unit and its effects on the battlefield cannot be overlooked. "Of one thing I feel certain; in the last ditch, when the gatlin's jammed and the colonel dead, the soldier will be thinking more of his comrades in his section or platoon than of the cause, democracy, queen and country, or even dare I suggest it? - of the regiment" ³(Major general F.M. Richardson)

The friendship and loyalty demonstrated to one's friends act as a motivator. Because the soldiers trained together as part of the same unit friendships developed, the soldiers performed better which meant the unit was more effective.

Even with all the technological advances in weapons, men are basically the same and will be motivated in the next conflict by his fellow soldiers and indirectly by the regiment. For this reason the regimental system is an effective system. Regiments will have their place on the modern battlefield.

Combined Arms Regiments

The need for combined arms formations in the next conflict will ever be present. The need for a regimental system and its motivational attributes will also be predominant. Why not combine the two and create a combined arms unit?

The major factors governing unit structure are the delivery of firepower, the ability to manoeuvre, command and control and the ability to fulfil administrative requirements.⁴

If we take these factors, add to them the necessity for unit cohesion, there seems to be no reason not to create combined arms units. Today's single branch units do not satisfy the above factors on today's and tomorrow's battlefield.

Another factor which has not been listed but deserves mention is the ability to train your unit for war. Under the present single branch system the amount of time dedicated to the all arms training is minimal. All branches involved must review standard operating procedures, marrying-up drills must be rehearsed and liaisons must be established. These all take away from dedicated training time.

The participants on these exercises are often confused at first. The soldiers may be working together side by side for the first time. These situations hamper the ability to train for war and because combined arms exercises tend to be rare, the necessary cohesion does not develop between the different arms. By adopting a combined arms system, many of these problems would be solved. Training periods would be the same because it would be the same unit training. Soldiers would identify with one another because they would now be able to identify with the same regiment. The necessary cohesion would develop on the operational side, and standard operating procedures both written and unwritten could be fine-tuned.

Supporters of the present day regimental system may regard the proposition of a combined arms unit as the beginning of the end of the regimental system. However, the factors governing unit structure are still valid and must be satisfied in our preparation for war. There is no reason why a new regimental system based on combined arms units cannot build on the strengths of the present day system while better preparing our forces to do battle on the modern battlefield.

The regimental system is vital both as a motivator and as a basic organization structure. However, it fails to prepare its members for war by failing to train them to the standard necessary to participate effectively in an all arms operation.

To maximize all arms training and therefore wartime readiness and unit cohesion, today's system of single branch groupings should be changed. The resulting combined arms formations will be well prepared and well suited for tomorrow's battlefields.

Captain Steve Dubreuil is the Adjutant of the Royal Canadian Hussars (Montréal)

Notes

1. N.A. Kellet, *REGIMENTAL CUSTOMS AND TRADITIONS*, DSEA Staff Note 12/86, Ottawa, Canada, November 1986, p. 71.
2. Lieutenant-Colonel D.H. Ferguson, *THE REGIMENTAL SYSTEM: A COMBAT MULTIPLIER*, Ex New Horizons, Toronto, Canada, 1987-88, p. 4.
3. Major General F.M. Richardson, *FIGHTING SPIRIT: A STUDY OF PSYCHOLOGICAL FACTORS IN WAR*, (London: Leo Cooper LTD, 1978), p. 12.
4. N.A. Kellet, *REGIMENTAL ORGANIZATION*, DSEA Staff Note 3/85, Ottawa, Canada, February 1985, p.53.

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Applied Military Psychology in the Canadian Armed Forces

by Captain V.J. Fagnan

PART I - GENERAL

Introduction

In recent years, there has been considerable change in Canadian Forces defence policies and priorities. As a military community, we have blamed the Federal government for the steady decline of our military capabilities since the 1960's. Has the government really downgraded our capability to defend the country?



The military itself is very much to blame for the poor state of combat readiness, because it has neglected to train our soldiers for war. An old saying explains that a leader should always observe the following: MISSION, MARE, MEN, ME.

This means that the MISSION should be the leader's priority! Taking care of the MARE (tanks or equipment in modern terms) should come before the interests of the MEN, which should always come before MY interests as a leader. This principle is generally a good guide for junior officers; when it is used by senior officers, however, the soldier's interests usually come last. Taking care of our soldiers by insuring that we prepare them for war should be our prime concern. With properly trained soldiers, missions can be accomplished, and as a result the soldiers will take care of the equipment and leaders.

Training soldiers for war has traditionally been very routine and bureaucratic in nature. Our present training is more concerned with ironing out the details of moving men, equip-

ment and supplies over the 'battlefield', either tactically or administratively; there is little consideration for human interaction with a hostile environment. Analysing our training in terms of psychology, or "the science of the nature...of the human mind,"¹ can be beneficial.

Aim

The aim of this article is to recommend better ways of training the Canadian Forces for war by using applied military psychology.

PART II - DISCUSSION

Approach

This article is divided into two main sections. First, elements of applied military psychology (human factor, stress and psychological operations) are discussed. Second, realistic training and professional development programmes will be outlined as possible methods to prepare the Canadian Forces for war. These two methods will be discussed by illustrating their advantages and disadvantages as they relate to applied military psychology.

The Human Factor

Combat motivation. One question of any combat leader should be - why do men fight? Many have suggested that men fight in combat because of the environmental situation, internal feelings, and incentives or goals². Although leaders may be unable to change their soldiers' internal feelings and needs, a leader must learn how external forces influence these feelings and needs. As well, leaders should know how to communicate their goals and intentions if they

are to affect the motivation of their soldiers successfully. This knowledge should be basic to even the most subordinate levels of command, because all leaders can control panic situations during the 'fog of war'³. Understanding why men fight is as important during training as it is in battle itself.

also a positive correlation between the cohesion and morale of a unit and the effectiveness of the unit.⁶ A leader who recognizes the elements of good morale and who communicates well with his unit will have a better chance of success in battle.

Stress

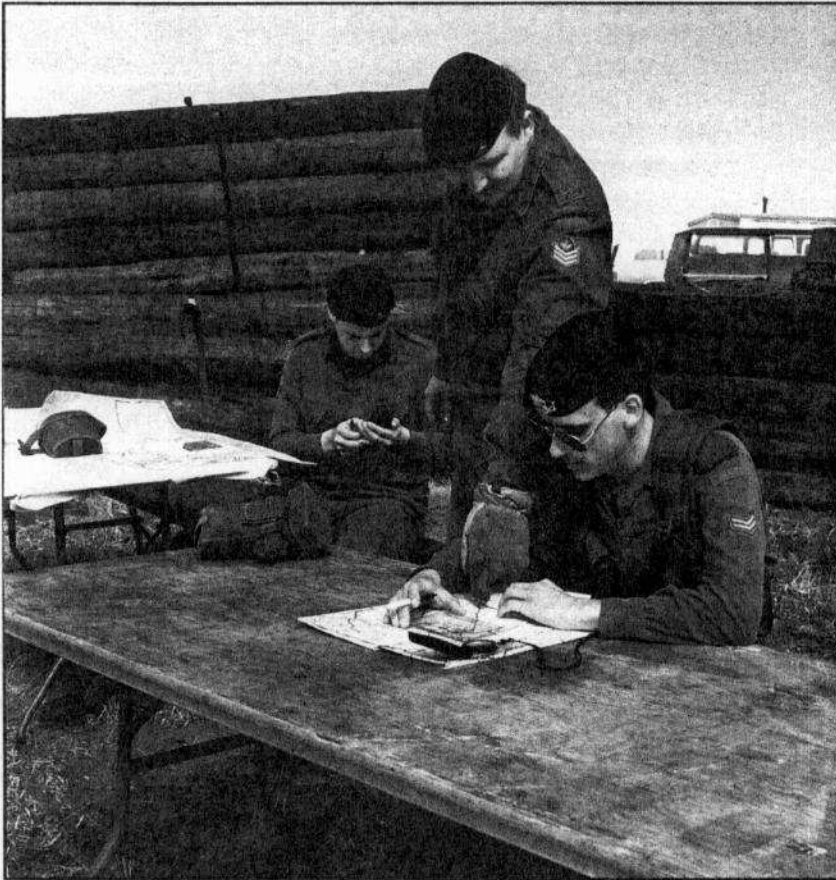
There have been many incidents in history where soldiers have become ineffective in battle because of a psychological wound. This psychological effect on a soldier depends on the intensity and duration of combat.⁷ The stress of combat will affect all personnel in battle; an individual may become ineffective to varying degrees at the stage where the stress of combat overcomes him.⁸ Therefore, it behooves all commanders to learn the effects and symptoms of stress in hostile or adverse conditions. Commanders at all levels should also learn and practise methods of treating battlefield stress casualties. According to the principles developed by the Israeli Defence Force during the 1982 Lebanon War, the best method of treating soldiers is by proximity, immediacy, and expectancy.⁹ That is, commanders must treat the casualty as close to the front as possible and as quickly as possible. All soldiers, whether they are casualties or not, must understand that they are expected to return to their unit after they are treated. As well,

"From the work of the Israelis, it is clear that a stable family life, good small unit leadership and strong small unit cohesion protect against psychiatric breakdown in the face of intense combat stress."¹⁰

It is, therefore, important to ensure that all commanders and soldiers are aware of combat stress situations within the unit.

Psychological Operations

Psychological Warfare. Psychological warfare is extremely important not only during war, but also before and after the conflict. Psychological warfare is defined as...



Worthington Trophy Training.

.....
Morale. Not only is it important to understand why men fight, but leaders should also know what affects the soldiers in group dynamics. Normally, terms such as esprit de corps, group cohesion and morale are used to analyse groups of soldiers. Good communications in a team are paramount when ensuring that the unit's will to fight is maintained. A Swedish study "recommended training officers in communication with their men as the means for improving both morale and discipline."⁴ A similar study in 1974 showed that "on U.S. Navy ships in which human resource management was best applied, the least amount of disciplinary measures were necessary."⁵ There is

"...the planned use of propaganda and other actions that have the primary purpose of influencing the opinions, emotions, attitudes, and behaviours of the enemy, neutral, or friendly groups in such a way as to support the accomplishment of national aims and objectives."¹¹



Training for NBC Operations.

Properly applied, psychological warfare can have very widespread effects. Whether the actions are started by friendly or enemy forces, these effects can influence many soldiers, both positively and negatively. As a senior commander, it would be beneficial to have an understanding of psychological warfare as a means of using military forces more effectively. As a junior commander, an understanding of psychological warfare, particularly the psychology of rumours, would help minimize or maximize the intended effects that psychological warfare could have on one's own troops. By understanding and using psychological warfare effectively, a commander can, therefore, maintain greater tactical flexibility.

Captivity. Military captivity can be divided into three phases: capture, interrogation, and brainwashing.¹² Teaching the phases of captivity to officers and soldiers would be good for the Canadian Forces in war and during peace. Firstly, a general understand-

ing of the aspects of being captured would help to build the confidence and morale of individual units. Secondly, teaching personnel what to expect if they are interrogated would decrease the risk of these soldiers releasing vital information. Lastly, teaching the academics of brainwashing or socialization techniques is very applicable to the military especially when training our own personnel. All leaders should learn the phases of captivity, with emphasis on the stages of socialization, in order to train troops for war effectively.

Realistic Training

One of many ways to apply psychology to the military is by training realistically. Leaders must train combat units to be prepared for the worst-case scenario through the effective use of military psychology. Realistic training could be accomplished with the use of live fire or battle simulation, casualty simulation (physical and psychological), escape and evasion exercises and adventure training. Applied correctly, realistic training can be a very valuable tool to develop individual self-confidence, small unit leadership, esprit de corps, cohesion and morale.

By training realistically, the Canadian Forces could benefit from higher levels of combat readiness, and combat troops would, be better able to maintain the initiative even during very stressful operational conditions. By exercising in difficult controlled situations, properly trained units would be more capable and effective during sustained operations. Lastly, by keeping the training challenging, interesting and realistic, the units would benefit from higher morale and lower attrition rates.

Although it is important to maintain troops at a high level of readiness, realistically, units cannot be ready for war on a moment's notice. Training can be very time consuming and costly. As well, with intense, realistic live fire exercises there is a potential for more training casualties in the Canadian Forces. As true as the preceding may be, however, it is important to realize that prop-

erly trained soldiers would actually save lives during an armed conflict. If military psychology is applied correctly, training with high-tech, expensive equipment is not always required to prepare troops mentally for stressful conditions.



Training Armour Troop Leaders

The Canadian Forces must reach a compromise between ensuring that units are psychologically prepared for war and ensuring that an acceptable level of disadvantages is maintained. By applying some basic factors of military psychology to training, units can better prepare their troops for war.

Professional Development

Professional development programmes, in the form of academic and practical study, are other possibilities which commanders could use to prepare their units for war. A professional development programme could include academic study of applied military psychology combined with a variety of case studies, and tactical exercises without troops. However, leaders should first learn how to communicate properly and manage effectively before trying to study the complex problems of combat motivation, battlefield stress management or psychological operations.

The implementation of an applied military psychology study programme for officers and senior non-commissioned officers would result in many benefits during peace and times of conflict. By understanding even the most basic elements of applied military psychology a leader could contribute to cohesion and morale of the unit. Leaders would be better able to deal with battlefield stress casualties, and understand the socialization process and apply it to military captivity and training.

There are several disadvantages to starting a professional development course. It can take a great deal of time to develop a good programme and tasks from higher always seem to compete for precious training time. Academic study could become boring if it is not complemented with interesting case studies and guest speakers. As a military leader, however, one must set goals and priorities and be interested in learning about the military's main resource - people.

Implementation

Before effective, realistic training can commence in the units, leaders must first learn applied military psychology from an academic point of view. This can be done through professional development programmes for all levels of command. As a reasonable base of knowledge is developed among officers and senior non-commissioned officers, realistic training can then commence. Both realistic training and professional development programmes are better ways of training the Canadian Forces for war.

PART III - CONCLUDING MATERIAL

Conclusion

Applied military psychology has been used to analyse many aspects of the Canadian Forces in hopes of determining recommendations for better ways to train for war. Combat motivation, morale, stress, psychological warfare and captivity are only some of the very broad topics within the scope of applied military psychology. No one topic is more important than another because the underlying theme of military psychology is

how a variety of factors can interact with and affect soldiers. A leader who is not able to communicate with or to manage his people properly can greatly affect a unit; man is not a machine and must not be treated as such.

Developing a realistic training attitude is important when training units for war. Training should be challenging and interesting for the soldiers, and it must prepare troops for the worst-case scenario through effective use of simulation and stressful conditions. In order for the professional development to be useful, academic study should be combined with practical case studies and tactical exercises without troops. When using applied military psychology, realistic training and professional development programmes are two better ways to train the Canadian Forces.

Recommendations

It is recommended that commanders at all levels keep in mind the frequently forgotten factors of applied military psychology when planning and conducting unit training.

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The LAV-25 as an Armoured Reconnaissance Vehicle

by Captain J. DeCarufel

INTRODUCTION

The LAV-25 will soon be "imposed" on our armoured reconnaissance squadrons in replacement of the Lynx, a 25-year old veteran of the Canadian Armoured Regiments.



As is too often the case, unfortunately, in democratic countries, political and economic considerations hold greater sway over the actual needs of the Army when the time comes to decide what equipment to procure. This fact of life has become even more evident now that the Warsaw Pact has been dissolved, the USSR has come apart and the two Germanies have reunited. Indeed, all these events have combined to spell the end of the threat and have coincided with a global economic recession.

Hence, as was the case when the AVGPs were purchased in 1978, the active operators of the Armoured Corps will be equipped with a vehicle that was chosen for them, a selection obviously based upon political/economic considerations, without them being given an opportunity of voicing their requirements. However, it must be realized that the Armoured Corps finds itself once again in a precarious situation, as its three main armoured vehicles have become obsolete and almost unusable simultaneously. Consequently, can it allow itself at this juncture to be difficult where the LAV is concerned? Yet, the concept of a "modular" armoured vehicle whereupon a common chassis can be fitted with three different types of turret, namely the reconnaissance, tank and ICV variants were first proposed to

replace the Lynx, Leopard, Cougar and M-113 respectively. This concept, something of an "expediency" solution, was viable although it had the disadvantage that it could not, in its "tank" variant, actually replace the main battle tank. Anyway, it was quickly put aside and forgotten when it was announced that the LAV-25 would replace the Lynx in the summer of 1996 and that the M-113s and Leopard tanks would have their lifespan extended for an unspecified period.

Also for economic reasons, the LAV-25 is to be purchased in its non-amphibious version, ie, it will not be equipped with propellers, though it is perfectly able to float. Anyway, to reject the LAV-25 off-hand on the grounds that it is too big "to see without being seen", in the same way as the Lynx, would be rash and of no avail. Indeed, a close examination of the LAV-25 reveals some indisputable qualities. The important aspect to consider is the impact the LAV-25 will have on our armoured reconnaissance tactics, in spite of its not being amphibious.

The "LUCHS" and German Doctrine on Reconnaissance

The Germans have acquired considerable expertise in the field of armoured combat, both in terms of tactics and equipment. During FALLEX 89, their reconnaissance vehicle, the Luchs, was observed in action and its performance was found to be rather amazing given its large size. Well camouflaged and driven by a crew able to make adequate use of the terrain, it was perfectly capable of "seeing without being seen".

The LAV-25 was also observed in action, at Camp Meaford in the summer of 1985, when

it was undergoing fire and mobility trials. This vehicle, fitted with a 25mm fully stabilized gun, was very impressive, and when I observed the Luchs in Germany in 89, the similarities between the two were undeniable. There remained only a small step to be taken



The next generation of Canadian reconnaissance vehicles - The LAV 25

after the decision was made to procure the LAV-25: why not use it in the same way the Germans use the Luchs? Indeed, it may be well worth our while to take an interest in the Germans' operating procedures and make some headway while we wait for delivery of our future "war machine".

The divisional reconnaissance of the Bundeswehr has equipped its light platoons with the Luchs and the heavy platoons with the Leopard 1A5. The role of the Luchs is to make contact with the enemy and keep him under observation, preferably without being seen. It must determine the enemy's strength, deployment and intentions, and relay this information to the rear quickly and reliably. It will only engage the enemy if it becomes absolutely necessary. When it was introduced into service on 4 September 1975, the Germans emphasized the following features of the Luchs design: considerable range and cross-country capability, low-noise, excellent communication capability, insulated against heat emissions, excellent amphibious and observation capabilities, including at night and in bad weather.¹ Since

it was introduced, the only changes considered were the addition of a thermal-imaging sight system and increased-range radio communication equipment.²

The fact is, German armoured reconnaissance doctrine does not differ very significantly from our own. If we take into account the organization of the Divisional Reconnaissance Regiment according to CFP 305(5) *The Division Regiment in Battle*, wherein we use one tank squadron to our two reconnaissance squadrons, it can be said that the organization of our Regiments is about the same. Moreover, the Germans seem to be very satisfied with the performance of the Luchs which, according to experts writing in *Miltech* magazine "is without a doubt the most sophisticated and complex of all the vehicles designed exclusively for reconnaissance."³ It would be interesting, therefore, to compare in detail the specifications of the Luchs with those of the LAV-25 to determine to what extent these two vehicles are comparable.

Comparing the LAV-25 and the LUCHS

Follows are the major characteristics for the Luchs and LAV-25 as well as the criteria deemed essential by John C. Larminie in his article, *The Operational Requirements of Light Armoured Vehicles* published in IDR 11/1987, p. 1490-91, tables 3 and 4: (Table 1)

To summarize, the LAV-25 is slightly smaller, faster and more manoeuvrable than the Luchs. It is much better armed. Conversely, the Luchs has a slightly better range and has the advantage that it can be driven both forwards and backwards, a factor that largely offsets its very wide turning circle. Also, its large tires probably increase its mobility. Moreover, a comparison of the characteristics of the LAV-25 against the criteria deemed essential shows that only its height does not meet the criteria (by 0.5m).

The LAV-25 was put through several trials by the United States Marine Corps (USMC) dur-

ing the LAV competition from September 1980 to September 1982. It was then recognized as the light armoured vehicle most capable of engaging targets and crossing difficult terrain. It was also the fastest off the road and over sand, and the most difficult to "hit" in simulated combats.

account the new capabilities and limitations of the LAV-25 in relation to the Lynx. The following changes would have to be made to the LAV-25:

- a. crew protection to be improved as follows:

CRITERIA	LAV-25	LUCHS	ESSENTIAL
Power to Weight Ratio	27.1 hp/t	20 hp/t	More than 20
Maximum speed	100 km/h	20 km/h	-
Speed in water	-	9 km/h	-
Vertical obstacle	0.6m	0.6m	-
Trench crossing	2.1m	1.9m	-
Turning circle	7.65m	11.5m	8.75m
Angles of approach and exit	60%	60%	40%
Side slope	35%	30%	33%
Ground clearance	0.5m	0.44m	0.35m
Width	2.49m	2.98m	3.5m
Height	2.7m	2.9m	2.2m
Range	668 km	800 km	-
Tire size	11.00 x 16	14.00 x 20	-
Main armament	25mm stabilized	20mm non stabilized	20mm

Table 1

The LAV-25 as an Armoured Reconnaissance Vehicle For The CF

The Germans would use the Luchs even in high-intensity conflict in Europe, using tactics very similar to our own. This implies that by making some changes to the LAV-25 — which can be advantageously compared to the Luchs — it could be made into an effective reconnaissance vehicle serviceable for many years to come. However, changes in our tactics would also be required to take into

1) adding appliqué armour to the front of the vehicle. Almost 900 kg of additional armour could be added without a loss of airportability,

2) adding a kevlar spall liner for all crew stations, and

3) installation of an NBC protection system. One already exists and could be fitted as an option;

- b. to compensate for its height, detection could be made more difficult by implementing the following measures:

- 1) reducing the noise level by improving the silencer and better insulating the engine compartment, and

- 2) improving the insulation of the engine compartment



The Canadian reconnaissance workhorse - The Lynx

should also help reduce the heat signature; and

- c. finally, to improve its observation capability, the thermal-imaging sight system should be installed as an option. Additional episcopes should be fitted on the gunner side who would also act as observer given the vehicle's reconnaissance role.

The changes that would have to be made to our reconnaissance tactics following introduction of the LAV-25 should be very limited. Indeed, the four major differences between the LAV-25 and the Lynx are size, firepower, track vs wheel, and amphibious capability. An examination of these differences led to the following findings:

- a. increased consideration will have to be given to maximum utilization of terrain and camouflage, both when static and mobile to compensate for the height of the LAV-25. It must be emphasized that a LAV modified as indicated above would be much less noisy and susceptible to detection from thermal imagery than the Lynx; and
- b. the increased firepower if the LAV-25 only "makes up" for where the Lynx had fallen behind. I do not believe that introducing a 25mm gun would allow us to change our doctrine whereby Canadian reconnaissance only fights in situations of dire necessity. On the other hand, the LAV-25 could defend itself effectively, whereas the Lynx simply could not.

Mobility Comparison of The LAV-25 Versus The LYNX

When compared to the Lynx, as a wheeled vehicle the LAV-25 has advantages and disadvantages. Factors that must be taken in consideration are:

- a. road mobility — the LAV-25 is certainly superior to the Lynx as a result of greater maximum speed, improved acceleration and better handling in an urban setting;

- b. off-road mobility — the LAV-25 is an improvement on the Lynx in both speed and manoeuvrability. However, the Lynx is probably more mobile than the LAV-25 over very wet ground; and

- c. finally, the LAV-25 has a greater range and is more reliable than the Lynx, in addition to being more comfortable and less noisy.

Conclusion

Canada, like every other country, cannot ignore economic and political factors when deciding what military equipment to buy, given not only the global strategic situation, but also the current economic recession. It would therefore be useless and counterproductive to go on dreaming about the perfect vehicle which, should it exist (very doubtful) would be well beyond our means.

The LAV-25 has many advantages over the Lynx against only three disadvantages, namely a higher silhouette, lower mobility over wet ground and no swimming capability. The fact that the Germans can "see without being seen" with the Luchs, which is slightly higher, leads me to believe that we could do as well with an appropriately modified LAV-25. With regard to mobility over wet ground, it is worth noting that it will be considerably greater than the Cougar's whose drivers, with the right experience, perform marvels. I sincerely believe that we can accommodate the LAV-25 as an armoured reconnaissance vehicle without having to introduce major changes in our doctrine, despite the fact that the LAV-25 is not likely to be amphibious.

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The Canadian Cavalry Brigade

PART 3 OF 4 - MOREUIL WOOD

Major MR McNorgan

HISTORICAL

By the spring of 1918 the Great War dragged on for nearly four years. The weary combatants both hoped the end was at hand. To win, the Central Powers had to strike a knockout blow before the Americans could arrive in strength. For the Allies part, they had to hold on until the Americans came.



On the British right flank, facing three German armies, was General Sir Hubert Gough's Fifth Army. Gough was worried because he did not have enough troops to adequately defend his 40 miles of front. He also knew that an enemy offensive was imminent. In reserve Gough had a cavalry division which temporarily included the Canadian Cavalry Brigade (CCB) consisting of the Royal Canadian Dragoons (RCD), Lord Strathcona's Horse (Royal Canadians) (LSH) and The Fort Garry Horse (FGH).

The million man strong German offensive struck Fifth Army on 21 March. As Gough's troops fell back, he pushed forward his reserves, including the dismounted cavalry. Days passed and holes continued to appear in the Allied line. To meet these recurring emergencies the CCB was pulled out of the infantry battle and remounted to provide a mobile reserve.

One of the German objectives was an important rail centre, Amiens. It lay behind the junction point of the French and British Armies. If the Allies could be split, the British could be forced north to guard the channel ports and the French south to

cover Paris. Amiens is situated on the Avre River which flows through it from the south-east. Twelve miles up stream is the village of Moreuil. On 29 March a three mile gap appeared in the Allied line centred on a beech covered ridge overlooking that village.

At first light on Easter Saturday, 30 March, the CCB stood-to in the Bois de Guyencourt, five miles west of Moreuil. The day was cold and dull with a heavy mist that burned off slowly as the sun rose. The only orders arriving were "Move postponed two hours" and so the troops got a hot breakfast of bacon and tea. The commander of 2nd Cavalry Division, Major-General 'Tommy' Pitman, conferred with the CCB commander, Brigadier-General 'Jack' Seely, at 8 AM. Pitman gave Seely his orders. "Go to the support of the infantry just beyond Castel, this side of the Moreuil Ridge. Don't get too heavily involved - you will be needed later." Seely briefed his officers, then left on a personal reconnaissance taking one of the two available maps, the Brigade following a short time later. The order of march was RCD (with the other map), LSH, CCB Machine-Gun Squadron and FGH. Leaving the Bois de Guyencourt, the brigade trotted east across the Noye River, stopping to water the horses and top up canteens. Then on to Castel and the narrow bridge over the Avre where they were heartened to see the Canadian Motor Machine-Gun Brigade, Canada's first armoured formation.

The 23rd (Saxon) Division had occupied the northern portion of Moreuil Wood and was enduring bombing and strafing attacks by allied aircraft. Marching on Moreuil from the

east was the 243rd (Wurtemberg) Division advancing in two columns. The right hand column consisted of the 122nd Fusilier Regiment (122 FR) and the 306th Engineer Compagny with the 1st Battery 238th Field Artillery Regiment (238 FAR) in direct support. The left hand column comprised the 479th infantry Regiment and the 253rd Engineer Company equipped with a bridge. In reserve was the 478th infantry Regiment and the remaining two batteries of 238 FAR all following the right hand column. The objective of the left column was to secure the village of Moreuil and force a river crossing in order to pass through the divisional reserve. The right hand column was tasked to secure the Bois de Moreuil and the high ground overlooking the Avre.

Seely meanwhile had arrived in Castel where he found the French about to withdraw to the west bank of the river. Only a thin skirmish line remained between the wood and the Avre. He persuaded the French commander to stay put telling him that he was going to counter-attack the ridge and would require supporting fire.

Moreuil Wood has a triangular shape with one side facing north, another west, and the third south-east. At the north-western point lies a small outgrowth called Bois de la Corne. As it was not yet occupied by the enemy Seely selected this as the site for his headquarters. His quickly devised plan was to send an RCD squadron around each side of the wood, and one through the centre. The LSH, dismounted, would clear the wood from north to south, with the Machine-Gun Squadron providing covering fire on the flanks. The FGH remained in reserve.

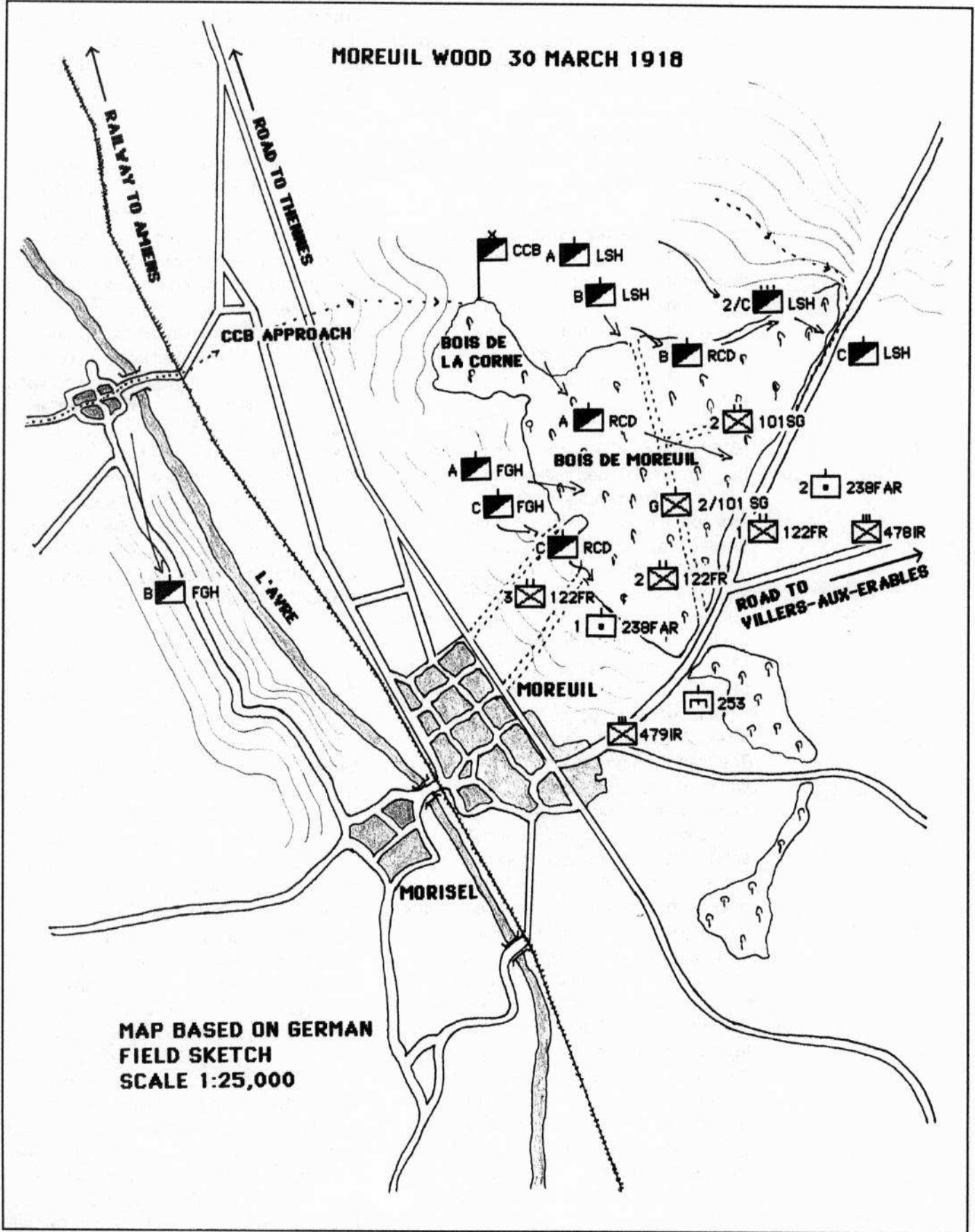
Seely gave his orders to his brigade major (BM), Major 'Con' Connolly. It would be Connolly's task to brief the units as they arrived at the Castel bridge. Then, accompanied by aide-de-camp, his orderly, and the Brigade Signal Troop, he galloped up the crest toward the Bois de la Corne and

into enemy fire. Seven of the twelve men in the Signal Troop survived to reach the wood, dismount and open fire. The orderly jammed a red pennant into the ground at the northern most point of the wood to mark the location of Brigade Headquarters. Seely turned in the saddle to watch the RCD galloping up the hill along the route he had just taken, it was 9:30 AM.

'A' Squadron, commanded by Captain Roy Nordheimer, lead the RCD. They galloped past Brigade Headquarters into the north-west corner of the wood. Heavy machine-gun and rifle fire caused Nordheimer to dismount his men and order them forward with fixed bayonets. he was soon wounded, shot through the right knee, but the Squadron carried on. Lieutenant 'Shrimp' Cochran of 1st Troop won the Military Cross personally killing five enemy soldiers in leading his men to the far edge of the woodline. An estimated 300 enemy were driven out of the wood by this attack.

The second RCD Squadron was 'C'. They were sent south, past the west face of the wood, to occupy the south-west tip and establish contact with the French in the village. They did not reach their objective. 'C' Squadron came over a crest to find itself confronted with the 3rd battalion 122 FR (3/122 FR) which was fighting its way into Moreuil. Behind the battalion was its close support battery 1/238 FAR. Faced with a heavy concentration of fire, the squadron commander chose to wheel left into the wood. At the same time the battery commander of 1/238 FAR, Lieutenant Gottschid, ordered Acting Sergeant-Major Brehm's Number Two Section into action. The 238 FAR War Diary described the scene. "The, in peace so often practiced, and in war so rarely used, command 'attacking cavalry to right' could now be used. As if electrified, the gun trails flew to the left, and with lightening like quickfire, the two guns opened fire at a range of 400 metres at the attacking squadrons.

MOREUIL WOOD 30 MARCH 1918



MAP BASED ON GERMAN
FIELD SKETCH
SCALE 1:25,000

In a few minutes one could only see a few riderless horses still heading toward our gun lines. The greatest part of the riders lay dead or wounded on the ground. A few lucky ones were able to escape this fate through quick retreat. The drivers of the 1st Battery were able to capture about 20 horses, that were very welcome as replacements for the many horses lost by us. As expected, these horses that had been bred on the Canadian steppes, distinguished themselves from our horses, because of their superior nutritional condition." This graphic description may have been prompted by the fact that the brigade commander, General Von Berger, personally directed the defensive fire.

'B' Squadron RCD was next on the scene, but with only 80 men instead of their normal 150. The orders intended them to pass around the north-east tip of the wood. Instead they went half way across the north face and charged into the forest. The squadron encountered intense machine-gun fire, including weapons being fired from the branches of trees. Unlike 'A' Squadron, 'B' was never given the order to dismount. Many horses were killed and the situation became confused as groups of mounted and dismounted soldiers became isolated. The men had understood that 'C' Squadron would be supporting their attack. This idea probably arose from the BM's hurried verbal orders when he said that 'C' and 'B' squadrons would meet on the opposite side of the wood. 'C' Squadron, of course, was not in sight and some men were sent back to look for them. Returning to Brigade Headquarters, one dazed trooper told the BM that "the squadron had been cut up". It was obvious to the BM that 'B' Squadron RCD could not complete its task. Among the casualties were the squadron commander, suffering from shell shock, and the only other officer, Lieutenant AVS (Victor) Nordheimer. His horse killed, Nordheimer was advancing sword in hand when he was shot. Later buried where he fell, his grave was marked by a tree blazed with the initials VN.

The northern RCD attacks had met the 2nd Battalion 101st Grenadiers, 23rd (Saxon) Division, head-on inside the wood. C Squadron RCD in the south was struggling with 122 Fusilier Regiment.

The 3rd Battalion 122 FR was under great pressure. Attacked by three squadrons of British aircraft, they were still engaging French infantry fighting from positions inside Moreuil and being pressed by C Squadron RCD. The battalion commander, Major Count Zeil, appealed for support. The 122 FR regimental commander, Lieutenant-Colonel Von Albern, was about to order the 2nd Battalion to deploy from the wood and attack Moreuil when a breathless artillery liaison officer cried out "Enemy in the rear! Help!" Von Albern ordered the 2nd Battalion to turn and face the new threat from the north-east. The 1st Battalion 122FR, which had followed the 2nd up to the wood accompanied by 2/238 FAR, was being attacked on its right flank by a squadron of Canadian cavalry.

While the RCD were engaged inside the wood, LSH was crossing the Castel bridge. They formed up north of the wood about 1,000 yards from the point where 'B' Squadron RCD had entered. Their CO, Lieutenant-Colonel Donald MacDonald, had been told to attack dismounted. The BM arranged for the Machine-Gun Squadron to provide covering fire. 'A' and 'B' Squadrons advanced on foot, 'C' Squadron remaining as a mounted reserve. The advance had no sooner started when an order arrived for LSH to supply a mounted squadron. Lieutenant 'Flowers' Flowerdew's 'C' Squadron was the only one available. MacDonald and the BM rode over to Flowerdew where the BM briefed him on his task. The attack of 'B' Squadron RCD having been stalled, Flowerdew's squadron would have to complete their task. He was to take 'C' Squadron around the north-east corner and attack the enemy trying to enter the wood at that point. Once the enemy were dispersed 'C' Squadron was to occupy the south-east face of the wood.

As Flowerdew moved off he was joined by Seely who later recorded in his memoirs that as he rode with Flowerdew he told him that his was "... the most adventurous task of all; but I am confident you will succeed." Flowerdew smiled and said: "I know, sir, I know, it is a splendid moment. I will try not to fail you."



PA 33344
Captain GM Flowerdew, VC. 02 January 1885
- 31 March 1918

In the meantime, 'A' and 'B' Squadrons LSH attacked on foot to support 'B' Squadron RCD in their unequal struggle with the Saxons.

Seeing that the north-east tip of the wood was occupied by the enemy, Flowerdew ordered Lieutenant Harvey, VC of 2nd Troop, to secure it. While riding toward the objective the troop sabred five Germans they found looting a French transport wagon. On reaching the objective Harvey dismounted the troop and was about to attack the enemy when Flowerdew arrived. Harvey explained the situation to Flowerdew who said, "Go ahead and we will go around the end mounted and catch them when they come out."

While this conversation was taking place the remainder of 'C' Squadron was waiting in a draw north-east of the wood. On returning to the squadron, Flowerdew led them up out of the draw onto higher ground. Almost immediately he saw two lines of infantry 300 yards to his front accompanied by artillery. In front was Number 8 Company 101st Saxon Grenadiers placed to the east of the wood in anticipation of a rumoured tank attack. (A rumour inspired by the armoured cars of the Canadian Motor Machine-Gun Brigade?) Behind them were 1st Battalion 122 FR, 2nd Battery 238 FAR and a machine-gun company. Half turning in the saddle he shouted, "It's a charge, boys, it's a charge." The boy trumpeter, Reg Longley, riding directly behind Flowerdew raised his trumpet to sound the charge, but no call was made as horse and rider fell. As the attack gathered momentum Flowerdew and his horse went down the troops streaming past him. The fire from the enemy machine-guns was intense and deadly. Sergeant Tom Mackay, MM, who was leading 1st Troop because the troop leader Lieutenant 'Hammy' Harrower had been detached for patrol duties, later had 59 bullet holes counted in one leg. The bullet holes in the other leg could not be counted as they ran too close together.

The diarist of 238 FAR was less descriptive about this action than he was with the action by 1st Battery. "While pulling into position, 2nd Battery is attacked by Canadian cavalry breaking out of the eastern edge of the forest north of Moreuil and comes under Machine Gun fire. The battery completes its deployment and in conjunction with the infantry takes out the cavalry, the survivors of which retreat into the forest."

Although 238 FAR appears to have taken credit for stopping the attack, it should be noted that Flowerdew's men faced the combined fire of five rifle companies, an artillery battery, assorted mortars and a

machine-gun company which had caught the three troops in a withering cross-fire. In the wood, the hard pressed RCD squadrons noticed the enemy giving way. The very sound of the Strathcona's charging horses had caused the Saxons to start



PA 1758

The CCB Machine-Gun Squadron commanded Captain J.H. Boulder played a key role in supporting the cavalry attacks. This photo of the Squadron training was taken a few months after Moreuil.

looking over their shoulders expecting to be hit from the rear. Flowerdew's charge had also prevented the attack of 2/122 FR on Moreuil. The loss of the village would have allowed the enemy to cross the river. With the last natural defence line breached the way to Amiens would have been open.

Only one Canadian made it through both enemy lines, Sergeant Frederick Wooster of 1st Troop. Finding himself alone, with yet more enemy to his front, Wooster turned about and retraced his path back to Brigade Headquarters. Here he met Seely and described 'C' Squadron's charge. After a short rest, he joined Harvey's Troop in the wood. Wooster would win a Military Medal and a commission. Also with Harvey were the 20 survivors of 'B' Squadron RCD, and Lieutenant Harrower who had not been used for the planned patrol. With the aid of a sergeant, Harrower retrieved the severely wounded Flowerdew who was lying at the

treeline. As they carried him into the wood a burst of machine-gun fire struck Harrower in the foot leaving him with a wound that would end his army career. The still conscious Flowerdew said; "You had better get under cover Hammy, or they will shoot your head off next." Four men took over the task of carrying Flowerdew back to the Field Ambulance. At that point the sun broke through the mist illuminating the battlefield.

'C' Squadron RCD was still heavily engaged in the western face of the wood. Seely therefore sent 'B' Squadron FGH back across the Castel bridge and south along the west bank of the Avre. From here they could bring fire to bear on the enemy flank in the south-west tip of the wood.

The intense struggle inside the wood was still in doubt. Seely committed his reserves sending in 'A' and 'C' Squadrons FGH. Losses were severe, all three Regiments reporting one-third to one-half of their strengths as casualties. Few enemy surrendered, even the mortally wounded preferred to fight to the end. Only the timely arrival of the British 3rd Cavalry Brigade saved the Canadian gains. The 4th Hussars and 16th Lancers riding down from Castel entered the wood in the area of the 'C' Squadron RCD battle. The CO 16th Lancers was Lieutenant-Colonel Geoffrey Brooke, DSO, MC who had recently been the CCB BM. Under Brooke's command British and Canadian soldiers formed a line, advancing on order of a whistle blast. Every fifty yards they halted and fired five rounds into the brush. Thus the enemy was pushed back out of the wood with the exception of the southernmost tip. The battle reached a stalemate at this point. After 11:30 AM, the CCB held against repeated counter-attacks conducted in a heavy rain that began at noon and continued through the next day.

When the CCB was relieved by the infantry at 9:30 that night, they rode back to Castel, and watered the horses in the Avre, then

moved on to the Bois de Senecat to bivouac. The casualty returns were found to total 300 all ranks and 800 horses, nevertheless the line had been held, Amiens had been saved.

Moreuil Wood drew the survivors back. On 15 August 1918 as the war again took the CCB past the Bois de Moreuil, a group of RCD officers returned to the scene. The CCB dead had been buried by the enemy, the graves marked with swords or rifles thrust into the ground. Subsequent artillery fire had disturbed these shallow burials. In the wood they found the disinterred body of Victor Nordheimer which they reburied. A group of Strathconas had likewise toured the field on 13 August. They found the body of Trooper David Dobson, MM of 4th Troop 'C' Squadron which they reburied. Near Dobson lay the remains of a horse. Lieutenant 'Luke' Williams, MC picked up a detached hoof from the ground and kept it as a souvenir, later giving it to his Regiment. Today it sits on the desk of the CO LdSH (RC), a memento of a memorable day.

POSTSCRIPT

The Action at Moreuil Wood

The struggle continued after the CCB was withdrawn. A German counter-attack the following day recaptured the wood. Nevertheless, the German offensive had lost momentum and the Allied line remained intact. Two days later on 1 April the CCB was used to recapture another important tactical feature called Rifle Wood located just to the north of Bois de Moreuil. In spite of stiff casualties the operation was successful.

In April 1928 the Department of National Defence established a committee to recommend Battle Honours for Canadian units. The RCD lobbied hard to have the Moreuil and Rifle wood action included, but to no avail. The British War Office's final comment on the matter was:

1. There is no battle in the War Office Nomenclature List to cover the fighting which took place over wide areas from 29 March to 3 April, 1918, both dates inclusive.

2. The engagements at Moreuil Wood and Rifle Wood, extremely gallant as they were, were on very small scale."

Small scale or not, in March 1926 the Strathconas observed the eighth anniversary of the battle and have marked the occasion ever since.

Brigadier-General (Major-General) the Right Honourable JEB Seely, CB, CMG, DSO, MID

Seely commanded the CCB until May 1918. After being gassed at Rifle Wood he was sent home to become a Cabinet Minister. For the rest of his life he considered Moreuil Wood the high point of his military career.

Lieutenant-Colonel (Major-General) DJ MacDonald, DSO and Two Bars, MC, MID

Starting the war as lieutenant commanding 3rd Troop 'C' Squadron LSH, he commanded his Regiment in 1918 and again from 1919 to 1924.

Major (Brigadier) CE Connolly, DSO and Bar, MID

Connolly was the Regimental Sergeant-Major when LSH landed in France in 1915. He was soon commissioned and appointed adjutant. As a Captain he was OC 'C' Squadron in July 1917 when he won his first DSO. Serving as CO LSH from 1924 to 1929, he died in 1950 aged 67.

Lieutenant (Brigadier) FMW Harvey, VC, MC, CD, Croix de Guerre

Lieutenant Harvey, who already held the VC, would win a MC at Moreuil Wood and finish the war with a Croix de Guerre as well. He commanded LSH from 1938 to

1940, and served as a Brigadier in World War II. When he died in 1980, Harvey Barracks in Calgary was named in his honour.

Captain (Major) RB Nordheimer

He survived the war and continued to serve in the RCD. In 1925 he entered a debate in the pages of the Canadian Defence Quarterly with Captain, later Lieutenant-General, ELM Burns over the merits of cavalry versus tanks. Nordheimer supported retention of the cavalry.

Lieutenant (Captain) GM Flowerdew, VC

Wounded in the chest and both thighs he died the following day and was posthumously awarded the Victoria Cross. His promotion to Captain was announced the day he died.

Lieutenant (Captain) SH Williams, MC

Won an MC at Rifle Wood on 1 April 1918. On 24 April, 'C' Squadron LSH posed for the artist AJ Munnings while he create his famous work 'The Charge of Flowerdew's Squadron'. Williams represented Flowerdew. He survived the war to publish his memoirs in 1961.

ENDNOTES

1. The ADC was Captain Prince Antoine Gaston Phillippe d'Orleans et Braganza, MC, RCD, a member of the French Royal House. He would win the Legion d'honneur for his work this day carrying despatches under fire. He was killed in a flying accident 18 days after the end of the war.

2. A cousin of A Squadron's Roy Nordheimer, Victor had been a major commanding the RCD Depot in Toronto when he volunteered to go on active service as a lieutenant.

3. A BC fruit farmer, Gordon Flowerdew

served in the 31st BC Horse. In september 1914 when his unit was broken up in Valcartier SQMS Flowerdew became a lance-corporal in B Squadron LSH, his brother Eric a trooper in C Squadron. Flowerdew was commissioned in May 1916.

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Victoria Cross Winner

Cockburn, Hampden Zane Churchill

VC Leliefontein, Komati River, 7 November 1900

Born in Toronto, 19 November 1867

Unit The Royal Canadian Dragoons

Died in Toronto, 13 July 1913

Lieut. Cockburn, Lieut. Turner and Serg. Holland won the Victoria Cross in a very gallant defence of the guns at Komati River. General Smith-Dorrien, by a wide turning movement, compelled the enemy to vacate

a very strong position. The Boers were very strongly reinforced during the night and tried to recover their position next day; but Colonel Evans, with the Canadian Mounted Rifles and two guns of the 84th Battery, forestalled them, after a gallop of two miles. On the returning march, the rear guard consisted of the Canadian Dragoons and two Canadian 12-pounders, under Colonel Lessard. After some heavy fighting they were unexpectedly charged in the afternoon by 200 mounted Boers, who got within seventy yards before they were stopped by the Canadian Dragoons. Lieut. Cockburn held them off at a most critical moment and deliberately sacrificed himself and his party to let the guns get away. He was slightly wounded himself, and his men were all either killed, wounded, or taken prisoners. Later in the day Lieut. Turner, who had already been twice wounded, dismounted, and deploying his men at close quarters, drove off the enemy. Sgt. Holland worked a Colt gun with most deadly effect, until at last he found the enemy almost on top of him, and the horse attached to the carriage much blown. He then lifted the gun off the carriage, mounted his horse, and rode away with the gun under his arm.

