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Armour Bulletin



In this Issue

Minefield Breaching

D-Day Tank

LCol Graham's address to Governor General's Horse Guards

Strathcona Soldiers Honoured

56th RECCE Squadron

Distribution and Control of Fire

Editor in Chief.....LCol J.W.G. Rousseau
Managing EditorMaj P.R. Nielsen
Editor.....Capt J.L. Andrews
Design and Layout.....DCA 2

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:

- a. all articles should be typewritten on 8-1/2 x 11 paper, double spaced on one side and be accompanied by a 3.5 inch disk copy;
- b. articles should not exceed 2,000 words (much smaller articles are also welcome, ie, a page or two);
- c. 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;
- d. articles should contain footnotes where applicable;
- e. historical articles must be used to illustrate lessons learned. The article must do more than inform the readers of facts and dates;

- f. only material of an unclassified nature should be submitted;
- g. it would be extremely helpful if articles were submitted in both official language as they will be published in both french and english;
- h. the use of military abbreviations should be kept to a minimum;
- i. authors should include a very brief description of their current position and location.

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
RCAC School
Canadian Forces Base Gagetown
Oromocto, New Brunswick
EOG 2PO
Telephone: CSN 422-2655

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Graphic Arts
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Table of Contents

GENERAL

Colonel Commandant's Foreword	2
Director of Armour's Foreword	3
Editor's Corner	5

FEATURE ARTICLES

Minefield Breaching	6
D-Day Tank	14
LCol Graham's Address to The Governor General's Horse Guards	16
Strathcona Soldiers Honoured	20
Distribution of Fire	21
ERYX	25
Name the LAV	27
56th Recce Squadron	28
Future Corps Structure	36
RCAC: Mission Statement	38

Armour Bulletin

Colonel Commandant's Foreword

GENERAL

Whenever one writes for publication, one has to be concerned that his words may appear completely bypassed by events by the time they reach the reader. It has been even more of a danger lately since changes have taken place so quickly and so unpredictably. I am often reminded that if someone had dared describe the world today to the NATO Military Committee, when I left it only a few years ago, we would have called him insane.

The changes in the world situation, the state of our economy and a number of other factors have all had major repercussions on our defence policy and consequently our armed forces. We are likely to continue to live in such turbulent times. Few of us are comfortable with change, preferring the reassurance of the status quo and of our last 'success'. Armed forces, particularly in peacetime, are resistant to change from within and loath to change from outside.

How do we meet this challenge and adapt to new situations without forgetting the lessons of the past and repeating its errors? We do so by going back to the basic principles of our profession as the framework of any new plan. In my other functions, I often see business and other organizations trying to adapt to new situations while forgetting the first military principle which I learned; remember your aim!



I am encouraged however that among all the discussions of dollars, numbers, structures, equipments, etc, there seems to be a determination to remember the general principles of our profession and to identify the key principles upon which to base and measure any new plan. The Commander of the Army has described these principles clearly in his vision statement in the document called 'The Future Land Force'.

In addition, the Corps under the guidance of our Director, has developed and agreed upon certain principles which apply directly to us. I encourage you to become familiar with these principles if you are not already.

Nowhere will the application of these principles be more important than during the examination of the restructuring of the Militia being carried out by the Special Commission on Restructuring of the Reserves (SCRR). To deal with a short term situation, we could easily lose a long term capability which has historically been proven essential.

We can be despondent and frustrated in the face of change, on the other hand we can draw confidence by knowing that others have successfully faced equally daunting challenges in the past in war and in peace. We can also look upon these challenges as opportunities to become stronger, more effective and better able to meet the requirements of the future.

A handwritten signature in cursive script, reading "J.A.R. Gutknecht".

Lieutenant-Genral J.A.R. Gutknecht
CMM, OSTJ, CD
Colonel-Commandant

Director of Armour's Foreword

The old adage that change is the only constant continues to ring true. As we leave behind another active posting season and the changes of command of many regiments, the Corps needs to keep its focus. My own office have also gone through some change, as I have now moved to Ottawa and brought the Directorship with me. There have been many significant events since the last Armour Bulletin and I will review some of these for you.

First, the Reserve Structure Review. The Minister of National Defence announced just after Christmas last year that a Commission would be set up to review the Reserve Structure of the Canadian Forces. The Commission is about to release its report as this Bulletin goes to print. For the Army and the Corps, it remains important to show that we continue to rely on our two components. As I mentioned in my foreword to Bulletin #2 of last year, teamwork must be the order of the day. As such, the Association of the Royal Canadian Armoured Corps served as a useful vehicle for us to focus our representations to the Commission. Indeed, the Association's Council includes all Commanding Officers of all Armour units plus the Colonel Commandant and myself. It is therefore a forum that gathers all major stakeholders of the Corps.

At its September 94 meeting, the Association developed some principles which we could use to influence any future study on Corps structure. These principles served as a



good fire base for us to make our flanking movement on the Commission. Later, the Association executive committee distilled these principles into a formal presentation. Others, such as Brigadiers-General Bell and Amy, presented their own work to ensure the Corps views were taken into account.

Above all, we should view this Commission on Reserve structure in a positive light as for once we have a firm policy base from the Government to develop a mobilization concept. In addition, if conducted and acted upon in a proper way, the study will set the policy for the Militia structure for the next millennium and preserve it from any attack.

It is now old news that the Commander LFC has made his decision regarding the operational enhancement of the Land Force. In his allocation of the some 3600 credits, more than 500 came to the Armoured Corps, which will increase our strength and facilitate our fulfilment of operational tasks. These enhancements will create increased training loads at our schools and we have not yet solved the equipment challenge. However, it is a positive development for the Corps.


I want to make you aware of a forum that is not well known within the Corps. Twice a year, serving Armour Generals meet in plenary session to be updated on Armour matters. Our Armour Generals have varied in number from five to eight and we currently stand at five. Their last meeting

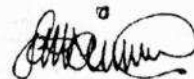
was on 25 April in Montreal at which I briefed them on the state of the Corps. They expressed concern with the passage of information and general state of communications. One method we have for improving the situation is through the use of Area Armour Advisers. I have asked the Commander of the Army to formally recognize this info or tech Armour net, and he has pledged his support.

At the meeting of the Armour Board this Spring, I requested help on two subjects: those of ethos and doctrine. With respect to ethos, we will conduct a study to ascertain the need for us to develop a written Corps ethos. Commanding Officers and the Armour family in general have offered their support. In particular, LCol Alan Halpfer, CO of the Windsor Regiment, will help in this project. I invite you to forward any ideas you might have.

The second subject concerns our tank and recce doctrine. To follow on the steps of Capt Branchaud's article in the last Armour Bulletin, I believe it is time to study some of the precepts that we have taken for granted for many years in the Corps. To name two, we should revisit the

size of the recce crew and the size of the tank squadron. Regarding the size of the tank squadron, the Commanding Officer of the 1st Hussars has drafted a study which we will publish in the next issue of the Armour Bulletin. Reconnaissance crew size is the subject of a paper developed by the Commanding Officer of the Elgin Regiment, also for submission to the next Armour Bulletin. I hope that these articles will prompt your comments and lead to an update of our tactical doctrine. We are pursuing the doctrine development associated with the employment of the new COYOTE reconnaissance vehicle. With its very capable gun, there will be pressure to use it as a Direct Fire Support Vehicle which we must resist.


In closing, I return to the subject of the RCAC Association. As an SOP within the Armour Bulletin, you will henceforth find a sheet explaining the raison d'être of the Association and a tear off slip for a life membership. I encourage you to join, as the Association is the best means of protecting our Corps values into the next century. Let us keep advancing to the objective. Worthy. 



Colonel J.O. Michel Maisonneuve, CD
Director of Armour

Editor's Corner

In spite of my appeal, in the last Editor's Corner, for more debate in the Bulletin 'The Floor' remains fairly silent. In order to make it easier for potential contributors or commentors to be heard, I have opened an E-Mail account for the Editor of the Armour Bulletin. I can now be reached at Editor @ Armd Sch Tac @ Gagetown in the nickname directory in the F2 function.

A new Bulletin mailing list has been adapted based on the RCAC Associations life members list. If you are a life member and require a change or update to your mailing address, please contact the Editor either by surface mail or E-Mail. 



Mechanised Minefield Breaching Doctrine Some Thoughts For Change

By Captain J.D. Pleadwell

ARTICLES

The purpose of this article is to challenge the way in which we could find ourselves thinking about and conducting breaching operations. In essence, to re-examine our doctrine on this often forgotten aspect of war. If I stimulate thought, raise a few eyebrows or encourage debate then I have achieved my aim.

INTRODUCTION

Although doctrine is defined by Oxford's Standard English Dictionary as "a standard way of doing something the same way every time", I believe that doctrine in it's simplest terms is a "guide" and nothing more. Doctrine, if you will allow me to coin a phrase, is the formatted disc upon which we must incorporate and save our experiences and lessons learned.

I believe that doctrine is not, nor should it become, a rigid or an all encompassing expression of every possible situation in which we might find ourselves on the battle field. If this were to happen, it would only serve to stifle thought, reduce clear thinking and inhibit timely decision making.

WHAT IS OUR DOCTRINE?

The three main Canadian Forces Publications in which we find our doctrine as it pertains to mechanised minefield breaching are CFP 305(1) The Armoured Regiment in Battle, CFP 301(2) The Combat Team Commander's Handbook and CFP 305(3) The Tank Troop in Battle. When the doctrine in these publications is analyzed and condensed, it shows us that we will conduct breaching in three different

operations: in the advance, as part of a hasty attack, and as part of the deliberate attack.

The mine plough and roller combination provide tank squadrons with an integral, but limited ability, to breach minefields. Tank squadrons are issued four ploughs and two rollers. Each troop is provided with a plough that remains mounted at all times during operations. The rollers are transported in the A1 echelon, unless ordered mounted by the Squadron commander.

The primary purpose of the mine plough is to increase battle field mobility by clearing a path in front of the tank and discarding the mines to the sides of the track. A heavy chain between the tracks of the tank detonates any tilt-rod fused mines. In order to be effective, the plough must operate at speeds of six to ten km/hr. It is currently the primary breaching device available to the squadron.

The primary purpose of the roller is also to increase battle field mobility, by detecting mines and proving lanes created by the plough. The roller is capable of defeating pressure fused mines that come into contact with the rollers. Maximum effective speed with rollers mounted is 16 km/hr.

During the advance to contact, a minefield will usually be detected when a vehicle detonates a mine. The troop in contact will immediately adopt fire positions and the troop leader will order his plough tank to attempt a breach. If rollers are mounted, he will then have the roller prove the lane. If the roller tank makes the initial contact,

it will immediately adopt a fire position. The plough tank moves forward and begins ploughing 100 meters to the rear of the roller tank, bypassing it on the left and continuing 100 meters plus of where the roller tank detonated the mine.

In the attack, mine ploughs and rollers would normally be used during the break-in phase of the assault stage. Use of engineer resources such as the Giant Viper or AVLB may be necessary if the squadron encounters difficult obstacles.

During the hasty attack, the squadron will attempt two simultaneous breaches a minimum of 300 meters apart. The lead tank troops will each contain one plough and one roller. If the exact forward edge

of the minefield is not known the plough tank will begin ploughing 100 meters short of where the suspected forward edge is thought to be. The roller will then prove the lane. The two gun tanks in the troop will provide the fire support. Once the breach is completed, the remainder of the troop will push through the breach.

During the deliberate attack the process remains basically the same, however, the extra battle procedure time afforded to the squadron commander allows him to re-distribute his squadron assets. Ideally, he should attempt to configure his two lead troops with two ploughs and one roller each. If the obstacle is complex, engineer resources will breach the outer minefield belts. The tank squadron will



Leopard equipped with track width mine rollers. Is it worth it?

direct its' efforts to the inner protective minefields immediately in front of the defensive position.

During the assault, the plough tanks lead supported by the roller and gun tank. The lead plough begins ploughing 100 meters before the near edge of the minefield. The roller will only lead if the forward edge of the minefield is not known prior to H-hour. When the plough has breached the minefield the roller will prove the lane.

At the combat team level, breaching will be controlled and conducted by the Combat Team Commander with his plough tanks leading and roller tanks proving. The Close Support (engineer) Troop Commander

will be able to provide the Combat Team Commander with advice, but the responsibility for the breach will lay with the Tango call signs. The engineer sections will follow the breaching troop to mark the lanes for follow on forces and they will continue to move with the combat team to provide support on the objective.

I have taken the liberty to construct a flow chart at Figure 1 to summarize Canadian doctrine. As you answer the "yes/no" questions you can work through and visualize the three scenarios in which we will conduct breaching. As you will observe, there are numerous avenues of approach to achieve a successful minefield breach.

MECHANIZED MINEFIELD BREACHING – A SUMMARY OF CANADIAN DOCTRINE

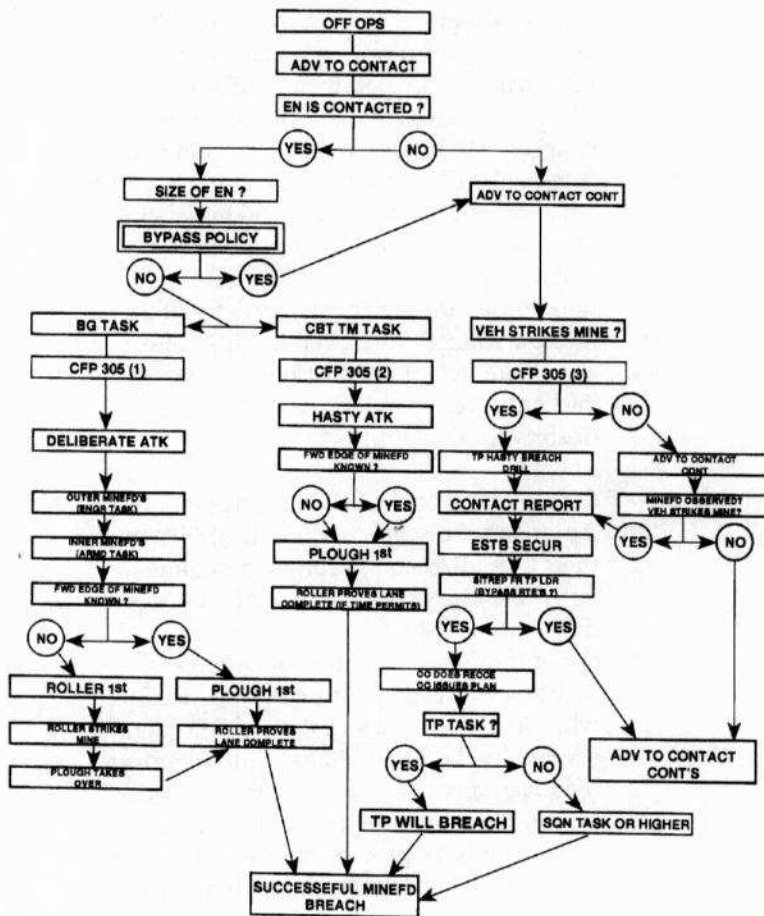


Figure 1

AMERICAN BREACHING DOCTRINE

Due to our lack of recent combat experience, the Canadian Armed Forces should focus on the experiences of other nations for the ever-ending quest to substantiate our doctrine and methodology. In trying to determine if Canada's proposed use of ploughs and rollers is correct we find ourselves turning to the experiences of the American Army. The United States Army and Marine Corps minefield breaching technology, in the past, has been similar to that which Canada proposes to use in a future conflict. The major difference is that the Americans have always had a greater propensity to use explosive breaching techniques.

The Americans have been quite prepared to utilize explosive breaching equipment during both the hasty and the deliberate attack whereas current Canadian doctrine indicates that the Giant Viper (MICLIC), as a battle group resource, will be used primarily for deliberate operations only. The American M58 mine clearing line charges (MICLIC) is a 105 meter long hose filled with 1750 lbs of C4 explosive. It can create a lane approximately 90 meters in length and 16 meters in width detonating single impulse pressure activated anti-tank mines and mechanically activated anti-personnel mines. Within this zone, approximately 90-95% of mines surface laid or buried to a depth of 2.5 cm are destroyed.

Employment of the MICLIC has given the American army much more flexibility than their Canadian counterparts in dealing with hasty breaches. Once a minefield is detected, the MICLIC is brought forward either mounted on a combat engineer vehicle or towed on a trailer. The MICLIC when fired, creates a lane that is subsequently proved by the plough tank. If time permits, the roller tank will also prove the lane prior to use. Through previous training, the Americans have proven that use of ploughs, rollers and the MICLIC in combination ensures greater success when conducting breaching operations.

LESSONS LEARNED BY US ARMY/MARINES

During Operation Desert Storm, the American forces had a great deal of lead time to collect and analyze intelligence about Iraqi defensive positions and obstacles to tactical mobility. In addition to a wide variety of anti-tank and anti-personnel mines laid out in two belts with concertina reinforced with pickets, the Iraqis incorporated tank ditches, fuel trenches, and defensive fortifications. They were covered by indirect and indirect fire weapons, including MBTs in hull down positions.

As a result of conducting deliberate breaching operations against these and other obstacles in South West Asia, the American Army and Marine Corps became aware of both weaknesses and strengths in their collective doctrines and equipments that may be of unique value to the Canadian experience. The following points highlight some of the relevant lessons learned:

- a. due to time and space to complete the deliberate breaches, total suppression of Iraqi indirect and direct fire was required at the breaching sites;
- b. the Track Width Mine Plough (TWMP) and MICLIC proved to be a successful combination;
- c. 104 shots were fired using the M58 (1-shot) line charge and the MK 154 (3-shot) line charge. The perceived deficiencies included:
 - (1) inability of the operator to ensure correct trailer orientation within the lane;
 - (2) inability of the host vehicle to back out of the ploughed lane if irreversibly obstructed (catastrophic loss of plough);
 - (3) inability of the M58 to survive cross country (20km/hr) transportation as a towed load from a staging area to the edge of the obstacle belt and still remain operational;

- (4) 6 shots required an alternate/back-up firing method from within the host vehicle;
 - (5) 15 shots required a combat engineer to exit the host vehicle, run through the minefield and place an explosive charge or firing device on the line charge to initiate detonation;
 - (6) 7 line charges were abandoned due to a bad lie or a second charge was placed over them detonating on command; and
 - (7) the high failure rate of the primary command detonation system was thought to be caused by a combination of firing equipment and a lack of familiarity with the system due to the relatively short period of training conducted prior to use;
- d. the TWMP was used to create and develop lanes. It was used most commonly to proof lanes. It would only sustain one anti-tank mine detonation before failure. It was effective moving mines with circular casings and less effective against the British Bar mine;
- e. the two attempts to use the TWMR to breach or proof a lane resulted in mobility kills to the host tanks. They were found to be slow, cumbersome, would bog down easily in sand, degraded the steering ability of the host tank, and were ineffective against double impulse mines;
- f. designed for sandy soil, the Full Width Mine Rake (FWMR) proved to be an excellent tool for proofing lanes through minefields. The full width ploughed lane provided an identifiable trail easily followed by subsequent vehicles;
- g. the Cleared Lane Marking System (CLAMS) was used by the American forces (this is the doctrinal equipment referred to in CFP 305(1) and CFP 305(3)) for the marking of minefield lanes. It is designed to attach to the rear of the MBT and will dispense markers in the lane as the MBT vehicle traverses the breach. Complaints focused on the following points:
- (1) CLAMS would run out of markers, usually covering only 3/4 of the distance required;
 - (2) The follow-on vehicles in the assault element would bottom out in the lane and crush the markers. The markers would subsequently resembled AT mines and alert drivers would stop, dismount and inspect the object, causing delay in the transit of the combat element; and
- h. the Global Positioning System (GPS) proved invaluable in marking exact locations of minefields and their gaps and lanes.

NEW DIRECTIONS

It would appear that the Army and Marine Corps are generally satisfied with their overall approach to breaching from the doctrinal perspective. The use of the plough and MICLIC in combination to breach and proof a minefield lane will likely be continued into the future with fine tuning to increase efficiency for both training and operations. There will likely be, as a result of these experiences, a diminished role for the roller in deliberate and hasty breaching operations; however, precise doctrinal changes as of yet are not determinable.

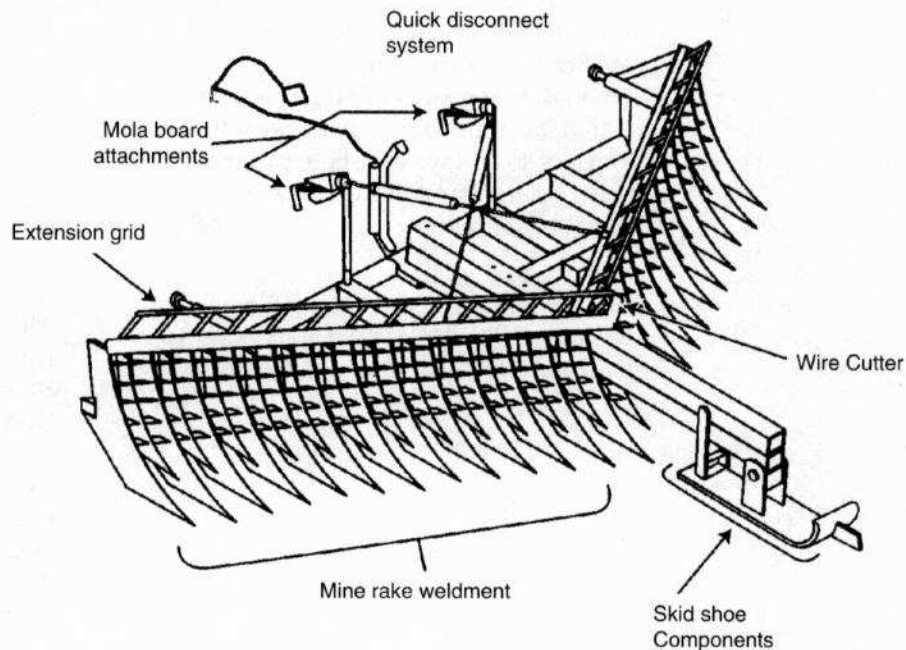
If we compare the American experience with the doctrine that Canada proposes to use, we can see where we may have some deficiencies in breaching minefields in a future conflict. Our current fixation with employing the roller and plough in combination may have been a sound procedure in the past. I believe it deserves re-examination. Canada currently carries an inventory of 8 Giant Viper systems which function on the same premise as their American counterparts. There are considerable weaknesses with the Giant Viper systems that are acknowledged by Canada's combat engineer subject matter experts. These weaknesses are similar to those experienced by the Americans in the Gulf conflict. Despite these shortcomings, the American Army and Marine Corps believe that many of these problems can be diminished with more extensive user training. American success with the MICLIC (Giant Viper) systems far outweigh the drawbacks. I believe that we should change our doctrine and base it more closely on the American model. My suggested changes are as follows:

- a. whether faced with a deliberate or a hasty breach, we should breach with the Giant Viper and proof the lane with the TWMP, this would require flushing the Giant Vipers out to the combat team engineer sections;
- b. in the Combat Team, re-group breaching assets into a breaching troop. This would ease command and control requirements by having a designated breaching force for in-stride breaches from the line of march. The breaching troop would move behind the forward element of the combat team, on an unexposed flank, and be available for immediate employment. Upon encountering a minefield, the lead

troop(s) would establish warning and adopt fire positions to establish security. The Combat Team Commander would conduct a reconnaissance to determine where to conduct a breach and issue his plan. The engineer section would begin moving closer (with Giant Vipers) in anticipation of taskings and advice. The three other troops in the combat team would be assigned taskings for either security, breakthrough or exploitation. The peculiar absence of rollers in this scenario would do much to greatly enhance the speed at which the combat team conducts tactical movement and executes breaching operations. The absence of rollers would also leave the production of tank fire unobstructed over the frontal arcs of host tanks;

- c. remove the TWMRs from the order of battle;
- d. delete all reference to the CLAMS from our doctrine (we don't apparently have any anyway) and continue with current engineer doctrine to mark lanes with pickets and mine tape. This is clearly the most flexible, versatile and cost effective method;
- e. for the purposes of night navigation, use red and green chemical lights to guide combat vehicles through gaps and lanes much like a ship would use navigation lights when traversing narrow passages; and
- f. acquire the Global Positioning System for all combat vehicles to aid not only for accurate reporting on minefield locations but for all other aspects of navigation.

FULL WIDTH MINE RAKE (FWMR)




CONCLUSION

Breaching operations in the 21st century will become decidedly more sophisticated, varied and deadly. An old idiom advises that we should "train the way we fight and fight the way we train". This applies equally for both equipment and doctrine. Doctrine is an area that can easily be addressed through professional study. Equipment however is the paradoxical question of dollars versus perceived need and common sense. Keeping in mind the financial and economic realities in which we as a nation find ourselves, new equipments will not likely appear over the long turn. We as a professional force must always explore new and innovative ways to train so that we can meet the challenges of the next century.

In this "era of fragmentation", regional conflicts (vice global) will likely hold centre stage for many years to come. These regional conflicts will continue to be met with a multi-force/nation mix. Because of this, it will become more critical to develop increased commonality with our closest allies to enjoy the benefits of their previous successes. This commonality should for the short term be focused on doctrine and for the long term on equipment.

The changes that I have suggested may not be universally accepted by all or perhaps by none. They are only ideas or food for thought.

As I stated in the introduction, doctrine is not a substitute for common sense, flexibility or the initiative of individual commanders. Doctrine is a set of loose parameters in which we must operate. Based on the experiences of other nations, I feel that it is time to change some of these parameters so that we may better prepare ourselves to fight and live on the battle field of the 21st century. 

Captain Jeff Pleadwell is a serving officer of the Royal Canadian Dragoons. He is currently serving as a tactics instructor at the RCAC School.

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The D-Day Tank

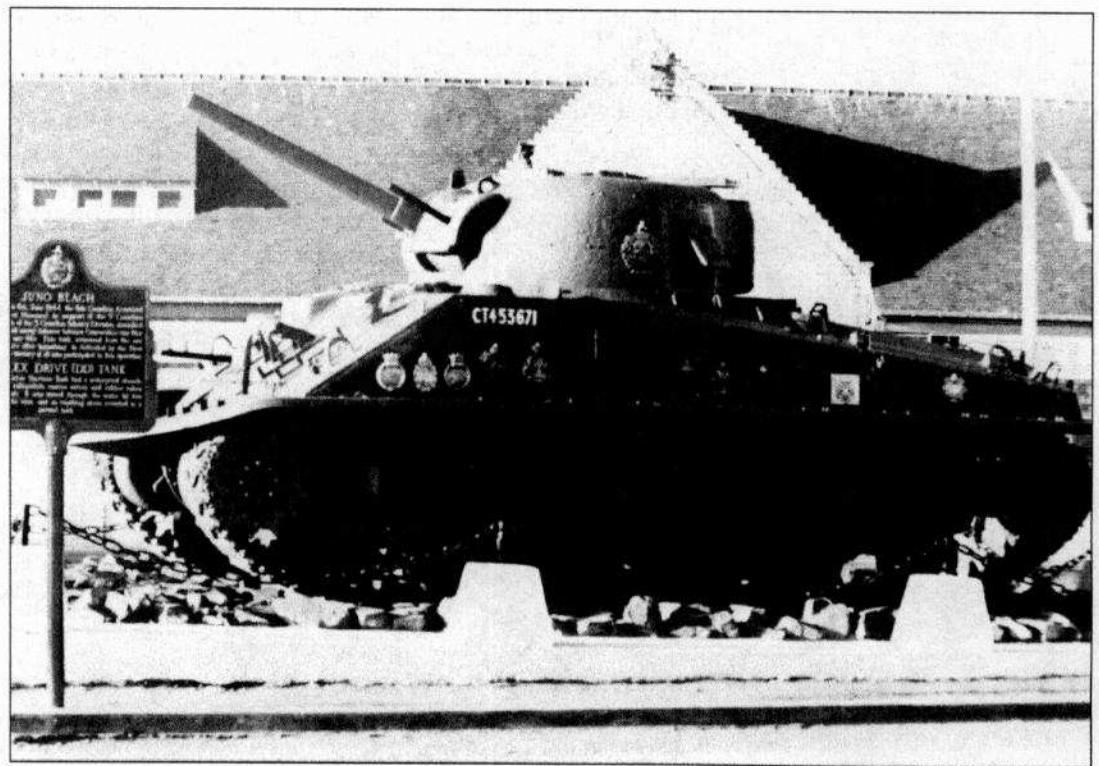
By Colonel Murray Johnston

This June many Canadians visited the beaches of Normandy, France. For many it was a pilgrimage back to D-Day, June 6th, 1944, when they stormed ashore and assaulted Hitler's Atlantic Wall. They left many of their friends, killed on the beaches or in the fierce battles that followed. Today the area is once again peaceful.

There is, however, no Canadian national memorial on these beaches. There are regimental memorials which were built, paid for and maintained by the regiments who won the battles and glory for Canada. Inland there are Canadian military cemeteries which are maintained by the Canadian Government. This national anonymity is

also reflected in the lack of Canadian visibility in Le Mémorial; un musée pour la paix at Caen. The nearest thing to a Canadian national monument on the beaches at Normandy is the tank at Courseulles-sur-Mer. But it didn't start out to be that and therein lies a story.

On that stormy morning 50 years ago the three infantry brigades of the 3rd Canadian Infantry Division landed. Each was supported by a tank regiment of the 2nd Canadian Armoured Brigade. Some of the tanks were specially modified amphibious tanks called Duplex Drive (DD) tanks and mounted a 75mm gun. These tanks were to provide direct fire support to the assaulting infantry as it landed. The upper part of the hull had



The D-Day Tank at Courseulles Sur-Mer from the Channel side.

a collapsible canvas skirt which gave it floatation (actually only a couple of feet of freeboard with the commander standing on the hull which was not a lot in the stormy seas and rising tide in which they were to be launched!). The rear idlers drove propellers which gave the tank way and steerage. The tanks were to be launched with the infantry for the run in. Once the tank touched bottom the skirt was to be collapsed the turret turned around and the first enemy target engaged.

On the Canadian right, A and B Squadrons of the 1st Hussars "ran in" with the leading infantry opposite La Valette and Courseulles-sur-Mer. However, some of the tanks sank on the way in. In the fall of 1970 local fishermen snagged their nets on one in the water off Courseulles. During successive tide changes, a salvage company floated it to near the low tide mark. Then, RCEME mechanics from armoured regiment and service battalion in CFB Lahr completed its recovery. The 1st Hussars raised \$15,000 for the tank's restoration and mounting. It was named BOLD with AUDICEUX appearing in smaller letters below. On June 6, 1971 it was dedicated as a 1st Hussars memorial. Shortly after this the 1st Hussars received many requests from

various units to put their plaques on the hull of the tank. Soon the tank was festooned with unit plaques.

However, the 1st Hussars could not support indefinitely the maintenance of the tank as an individual regimental memorial. "Ownership" of the tank was turned over to the town and a large sign installed beside it dedicating it "to the memory of all Canadian units that participated in the D-Day landings".

Maintaining the tank is a continual problem. The paint weathers and, because the plaques on the hull are attached by brackets, screws or spot welding, they are easily and frequently removed. Therefore, it must be periodically refurbished. For the 40th anniversary of D-Day in 1984, it was cleaned up by an EME crew from the armoured regiment in Lahr.

By 1994 the tank needed to be refurbishment again. In addition, it had sagged over the years as its road wheels deteriorated. So last spring, Team Bold, a small group of the remaining EME technicians in Canadian Forces Europe placed supporting jacks under the hull, painted it, added "tac" signs, repaired plaques and added one. Today in its newly refurbished livery in the tank continues to be a proud memorial to the Canadian soldiers who stormed these beaches 50 years ago. Their sacrifice has bought us peace but who will maintain their memorial in the future?



*Crest of the 1st Hussars who came ashore at 0715 hrs, 6 June 1944.
The Regiment lost 21 soldiers during the first day.*

The Governor General's Horse Guards Mess Dinner

September 30, 1994
Royal York Hotel, Toronto

Remarks By LCol John W. Graham,
Ed, QC

Editor's Note: On the 1st October 1995 the Governor General's Horse Guards received a new Standard. It was the third Standard in the Regiment's history, the previous two were presented in 1938 and 1967. The new Standard was presented by His Excellency Colonel The Right Honourable Ramon John Hnatyshyn, PC, CC, CMM, CD, QC, Governor General and Commander in Chief of Canada, at a ceremony in Sunnybrook Park, Toronto. During the course of the celebrations a mess dinner was held at which Lieutenant Colonel (Retired) John W. Graham, ED, QC, delivered a reflection of what being part of a Regiment meant to him. A copy of that address follows.

In reflecting upon what I should say this evening, I became once again very conscious of the long history of our Regiment. It has been said that a Regiment has a life of its own and that it sweeps up and embraces all those privileged to serve with it. Each makes a contribution – like the small tributaries of a great river, but it is only in the combining of all of the talents that the ultimate flow of tradition, contribution and service comes to full flood.

I was commissioned in the Governor General's Body Guard in 1930 – sixty-four years ago. It dawned upon me this week that sixty-four years before I was commissioned the Regiment was engaged in the Fenian Raids. I was a little shocked to realize how ancient I must seem to today's subalterns, having regard to the fact that

even in my day the Fenian Raids were distant history. Certainly, I never met a survivor of those troubled days in our colonial past.

I was brought up, as was Allan Burton a few years later, to join the militia as soon as possible, which meant upon attaining the age of eighteen years. In those days it was part of the growing up and maturing process and the taking of your place in adult society. I did not appreciate then that it was also the joining of a wonderful world wide fraternity which, in spite of dangers, sacrifices, problems, and disappointments, brought enormous satisfaction and pleasure.

In the 1930s, in spite of the fact that no one ever pocketed a days pay, it all being handed over to the unit for larger purposes, our strength was in the range of five hundred, all ranks. As a troop leader I had thirty-two men for whom I was responsible and in the 1930s you were truly responsible. You learned their names, details of their families, where they lived and if they worked, and if they did, where. You visited their homes. You made sure that they were housed and fed and you truly became interested, really interested, in the lives of each of those for whom you were responsible. This is one of the great lessons that we learned as young men, that there are those **for whom** you are responsible as well as those **to whom** you are responsible. This basic precept has been cardinal in my entire life.

Each Saturday night the officers' baseball league scheduled a double header at the old University Avenue Armoury. As a prelude to our later amalgamation with the Mississauga Horse, we in the Governor

General's Body Guard, joined with them in fielding the Cavalry team. Throughout the 1930s the social life for many of us was centred on Saturday night baseball with the subsequent receptions, singing and even dancing in the various messes. Many romances were spawned and a very good time was had by all, at minimal expense, which was all any of us could afford.

In 1934, when the City of Toronto was celebrating its centennial, the Governor General's Body Guard mounted its band, the first and I believe, the only one in Canadian history. They played a large part in the centennial celebrations. The horses by day pulled Eaton's wagons and they were stabled on Bay Street south of College. It was through the kindness and strong support of our then Honourary Lieutenant Colonel R.Y. Eaton, that this became possible. I shall never forget the training sessions in the riding school at the University Avenue Armoury in accustoming the horses not only to the fact that there was someone riding them, but also that the riders were loudly playing instruments and that there were crowd noises to which they would be exposed. We practiced and trained for months. The end result fully justified all the effort and was one of the outstanding features of Toronto's centennial celebrations.

During those years the Regiment would go to Niagara-on-the-Lake for summer camp and we would have some two hundred, all ranks, mounted. Most of the horses came from the Indian Reservation south of Brantford. It was quite an expedition each year when the veterinarian and three other officers would go to Caledonia, cut the horses offered by the Indians and arrange for their transport by train to Niagara-on-the-Lake where they were greeted by somewhat apprehensive troopers. By the end of camp the horses were once again accustomed to being ridden, free of ticks, and better fed than they had been since the last camp. It was a fascinating, memorable and occasionally exciting experience.

It was in January, 1936 that His Majesty George V died. It is difficult for Canadians of today to realize the great sense of personal loss that was felt on his death. All officers wore black arm bands for, I believe, six months and the entire garrison paraded in the University Avenue Armoury to have the various proclamations read and the oath of allegiance to the new monarch Edward VIII taken. Each of us also signed a new form of oath. It was a most memorable parade.

It was in December of 1936, on the 15th to be precise, that the Governor General's Body Guard and the Mississauga Horse were amalgamated under the name of the Governor General's Horse Guards. I was then the Adjutant of the Regiment and I can assure you that there was an enormous amount of work required to effect this merger in a smooth and totally satisfactory manner. We were to set even higher standards than before as we had more majors, captains, and subalterns than were provided for in any official establishment. We even had two lieutenant colonels. Everyone was taken on strength of the new unit and under the energetic guidance of Colonels Everett, Nash, and subsequently Locke; each officer was required to qualify for the next higher rank and we collectively set out to be the best qualified unit in the entire militia. I know that we succeeded and the wartime record of not only the Regiment, but also of others who had passed through the Regiment and gone to other areas of activity, emphasizes the significance of that programme. A totally personal survey and the product only of my own recollection, indicates that of the 1939 Horse Guard officers, one ended as a Major General, three as Brigadiers, three commanded other units of the Royal Canadian Armoured Corps and too many to enumerate ended up in various staff positions.

It was in 1938 that we received our first Standard from the hands of the then Governor General, Lord Tweedsmuir. No Canadian unit had ever received a Standard and a

considerable amount of investigation and research was required to determine the proper drill for the occasion. Tomorrow we shall receive, from the hands of His Excellency, The Governor General, our third Standard permitting the second, which was presented by The Right Honourable Roland Michener, to be laid up on Sunday in St. James' Cathedral, where hangs the first.

As 1939 arrived most of us felt that the precarious peace, or rather lack of war in Europe, was about to be broken. Hitler had pulled off a number of successful manoeuvres, enlarging greatly its influence and that of the Third Reich. Edgar Ogilvie and I were taking the militia staff course that year, which in 1939, took place at Trinity College School in Port Hope in August and involved some eight months of weekly lectures, followed by four weeks of practical work. By the third week the directing staff, who were all permanent force officers, began fading away. On the Friday of the third week we were advised if we had performed satisfactorily to that point we would get our qualifications, that the course was terminated and that we were to return home and report immediately to our commanding officers. This Edgar and I did. Russell Locke responded that there was no possibility of anything occurring or of us being wanted. We were to go away and enjoy the weekend. With a somewhat let down feeling we both agreed, but insisted on leaving our telephone numbers.

On the next morning, Saturday, August 26, 1939, I received a telephone call at 6.00 a.m. to report immediately. I was a Jackson's Point, communicated with Ian Cumberland, who was at Roche's Point, and we drove together to Toronto. After getting into uniform and reporting, I was deputed to go to the Exhibition Grounds as it was Warriors Day. In those years if you wore a uniform you gained free admission to the fairgrounds on Warriors Day. I recall having a lorry at the top of the midway, standing in it and fingering a considerable

number of Horse Guards who were there, loading them into the lorry and ensuring that they reported for duty. By nightfall we had a mounted squadron on the Welland Canal on "vulnerable point duty" and remained there until we were relieved by the Veterans Guard.

With two other officers who were equally restive and impatient, I accepted an invitation to go to the First Hussars in London, Ontario as of October 10, 1939. The First Hussars had been mobilized as the Cavalry Regiment of the First Division and, in our youthful exuberance and impatience, we did not wish to sit around to await the mobilization of the Horse Guards, having no knowledge when or if this would occur.

In those years I was truly a Citizen Soldier. I attended and graduated from University. I attended and graduated from Osgoode Hall Law School and I finally became gainfully employed. Beyond the basic lesson of mutual responsibility, we in the Cavalry learned the inexorable rule that you first looked after your horses, as an officer you then looked after your men and, finally, you endeavoured to get some comfort and accommodation yourself. Those who question the time honoured position of batman or batman driver, have no knowledge of the demands placed upon an officer who takes his basic responsibilities seriously.

But why would I and all of my fellows do this and give up our leisure time at considerable personal expense, not only in time, but also in dollars? Remember there was nothing provided an officer in those days and each one had to acquire his own gear, including not only khaki and riding boots, but also summer dress, blues, and mess kit. Even with the prices of the 1930s, I now appreciate that this was more than a year's income. Somehow or other we all found the money and had a lot of fun doing it.

I am reminded that my parents grew up as Victorians and reached maturity during Her Reign. The precepts that were inculcated in me and in my fellows in the militia were old fashioned and simple, expressed perhaps best in the time honoured trilogy of God, King and Country. Most of us attended Church, or other religious services each week. It was expected of every citizen that he would participate in the defence of Canada. From the earliest days of our country when we had the Levee en Masse, it was inculcated in all Canadians that it was the duty of every citizen to serve his country and sovereign. Canada has never relied upon a regular full time army as have many European and Latin countries, but rather upon a broadly based militia. The militia never has been and nor should it be a supplement to the regular force. It was a different world in the 1930s and it is hard today to comprehend the sense of duty and dedication that permeated all of us.

It was a very different city in those days, largely British in heritage and universally called "Toronto the Good". It was said, with some justification, that Toronto rolled up its sidewalks on Sundays.

We of today have a city that is some six times larger than the city of which I have been speaking. It is a city that has a different complexion, in a country that has a different complexion. It is a truly cosmopolitan city which, in my view, sometimes forgets its roots and the things that attracted people to it.

We are a richer place and, there is no question, we are a much more interesting and enjoyable place. It is my fervent hope that we do not forget those essential principles which nurtured our country from the earliest

days and, in particular, during the two hundred years that have elapsed since this province was created.

We in the militia suffer many slings and arrows. Not only from those who are unfamiliar with our traditions and those who would disparage overt displays of loyalty and citizenship, but also from the peacemongers and the pacifists, as we did in the 1930s. Some of us still recall the result of that loss of national fibre throughout most of the western world and the resulting long struggle that was required to put right the ravages of dictatorship and loss of democratic principles. We are here tonight with representatives of the Horse Guards who fought during the Second World War on behalf of us all.

A fortnight ago I saw a tablet in the Groesbeek Liberation Museum in the Netherlands which I shall share with you:

"War is an ugly thing, but not the ugliest of things; the decayed and degraded state of moral and patriotic feeling which thinks that nothing is worth war is much worse. A man who has nothing for which he is willing to fight; nothing he cares about more than his own personal safety; is a miserable creature who has no chance of being free, unless made and kept so by the exertions of better men than himself."

So long as there are Canadians who believe in the principles upon which this country was formed and which have been so exemplified through one and three quarter centuries by this Regiment, we shall all, nationally and regimentally remain, Nulli Secundus.

Strathcona Soldiers Honoured

By Lt D.J. Broomfield



Sgt Thomas Hoppe, MB,
MSC, CD

Members of the Lord Strathcona's Horse (Royal Canadians) were honoured in December and January for separate acts of bravery in the performance of UN peacekeeping duties in Bosnia-Herzegovina. Sgt Thomas Hoppe was awarded the Meritorious Service Cross and the Medal of Bravery, while Tpr Jason Skilliter was awarded the Medal of Bravery for their actions in theatre.

Sgt Hoppe, 29, was awarded the MSC for two separate incidents at OP C-1, situated along the confrontation line between the BSA and BiH. On July 4th, 1994, while in command of a TUA patrol, both sides directed small arms fire at his position. Using his initiative, Sgt Hoppe was able to move his vehicles out of danger. He was preparing to engage the belligerent forces when he was advised that negotiations had been successful in resolving the conflict. A similar incident occurred on July 15th, 1994, when the same OP was again engaged by sniper fire. In this instance, Sgt Hoppe's patrol was forced to fire warning shots at both sides. As this only resulted in an increase in hostile fire, his patrol was forced to engage a belligerent bunker in order to remove themselves from danger. Tpr Skilliter, 22, was awarded the MB for ensuring the safe withdrawal of the patrol by providing covering fire against the BiH bunker with his C-9 LMG, while the patrol made its escape. Their alert responses to a volatile situation allowed the patrol to escape unscathed.

The MB was conferred upon Sgt Hoppe for a third incident which occurred on August 31st, 1994. While manning OP C-5 on the outskirts of Visoko, Sgt Hoppe noticed three young children, who had been playing in a cemetery, pinned down by sniper fire. Sgt Hoppe quickly directed the driver of his APC to follow him as he ran towards the trapped children using the carrier as a shield. Once he had reached the children, he ran from the cover of the carrier to save them. With small arms rounds hitting the ground inches from him, Sgt Hoppe quickly assisted the children into the carrier and had the driver take them out of harms way. His quick thinking and rapid reaction saved the children from almost certain injury or death.

Tpr Skilliter was awarded his MB by the Governor-General at a ceremony in Ottawa in early December. Sgt Hoppe was likewise honoured with the MSC and MB at the end of May. The Strathcona's, and the Corps, are extremely proud of these individuals' brave actions.

PERSEVERANCE

Lt Dave Broomfield is a serving LdSH(RC) officer on Regimental duty. He was with the Regiment during its recent tour in the former Yugoslavia.

Distribution and Control of Fire

By Capt A.J. Zdunich

INTRODUCTION

In September 1994, the Commandant of the RCAC School initiated a review of all course material. This review, designated 'EXERCISE PULLTHROUGH' was designed to ensure that the School was up to date in what it was teaching and that lessons learned during recent operations by Canada and its allies were being incorporated into instruction. Topics ranged from AFV recognition to minefield breaching.

The session on the Distribution and Control of Tank Fire clearly demonstrated that there is presently not enough information on this topic in Canadian manuals, and therefore this subject has been inadequately taught on career courses. Furthermore, it was remarked that while courses spend a large amount of time on the mobility aspect of training, the effective use of firepower has been neglected. Therefore, these skills were taught at the Regiments, detracting from a Corps standard.

The following document suggests a means to correct these shortcomings. The information it contains resulted from consulting doctrine from other countries, specifically the US and France, as well as Canadian experiences at both CAT and RAMSHEAD competitions.

GENERAL

When the opportunity to issue specific orders to allocate tank fire is too time-consuming or not possible, a well-rehearsed troop SOP ensures fast and predictable

actions by all callsigns. SOPs for tank fire in the offence and defence should be detailed enough to allow rapid fire distribution and control after the terrain has been analyzed.

This article deals with two specific types of fire distribution and control, namely the Centre of Arc and Troop Arc concepts.

CENTRE OF ARC

Once the terrain has been analyzed, the troop leader will indicate a Centre of Arc (C of A) to the troop. The C of A is a FIXED point on the ground either in the middle of or behind the enemy, which is used as a reference point to indicate troop arcs.

The C of A can be used in the defence, on a fire base, and in the offence. In the defence, the troop leader will attempt to select a C of A during his recce of the troop position, and will then indicate it to the CCs as part of the Crew Commander's Must Knows. If the CC cannot adequately see the intended C of A, he reports this to the troop leader upon completion of the recce, before the troop leader gives his orders.

In the offence, because features that could become a C of A for one bound may not be effective for subsequent bounds, and because of a need to reduce radio traffic, the issuance of a C of A during an advance is not practical. However, troop leaders shall endeavour, wherever possible, to indicate a troop C of A based on a visual or map recce and include this as part of the orders to the troop.



Distribution of fire may be complicated by darkness or poor visibility.

In most cases, however, the Troop Leader will only specify a C of A when the troop comes under fire. In preparation he will include the establishment of a troop C of A as part of his estimate during bounds. Finally, if no obvious feature exists which the entire troop can observe, the troop leader may indicate a C of A by one of the following methods:

- a. firing a WP round and using it as the reference;
- b. engaging and destroying a target, using the vehicle's remains as the reference;
- c. having the troop observe the fall of shot when engaging the enemy with HESH; or
- d. some other practical method.

Note that, in the case of movement by fire teams, the senior callsign of the fire team which comes into contact with the enemy will designate the C of A as required, using one of the above-stated methods. The Troop Leader may decide to adjust the C of A when his fire team reaches the troop's lead elements.

Two basic distribution patterns which follow will cover most situations and, when used in conjunction with a C of A, will enable fast, effective troop fire distribution and control:

- a. **HEAD-ON.** This pattern is normally used when the enemy is dispersed and firing to their front. (Figure 1) The troop's left-most tank engages the left targets and then sweeps inwards towards the C of A, and the right-most

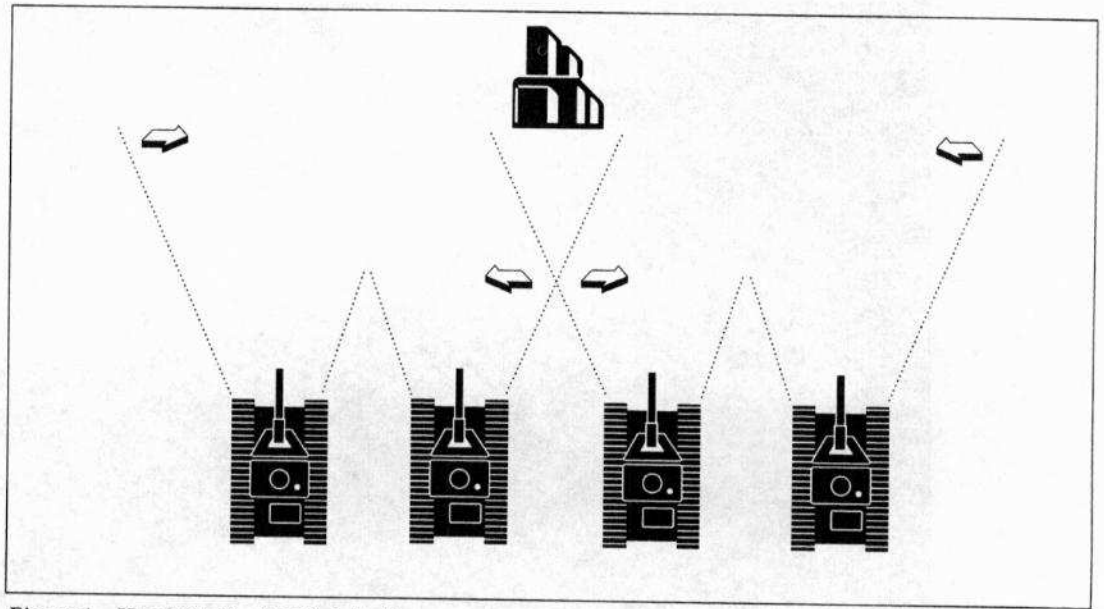


Figure 1 – Head-On C of A Distribution.

tank engages the right targets and then also sweeps inwards. The centre targets are engaged by the middle two tanks of the troop, commencing from the C of A, and sweep to the outside; ie. the centre-left tank engages targets it finds to the left of the C of A and continues to sweep left...the centre-right tank does the same for the right side. This method will most likely be used in the advance, and has the inherent disadvantage of inadequately covering dead zones; and

- b. **CROSS.** This form of distribution is most effective the enemy's flanks are exposed. (Figure 2) It allows the troop leader to maintain the principle of interlocking arcs, even when one of the troop's callsigns is unable to observe the C of A, or cannot fire to the front because of obstructions. Employing this method, the outside tanks continue to engage targets on the outside of the troop arcs and sweep inwards, while the two centre tanks cross their fire at the C of A.

TROOP ARC

Where the ground does not permit a viable C of A, the Troop Arc method (Figure 3) should be considered for use. This method requires the troop leader to identify troop left and right of arcs and only three of the four vehicles cover the assigned areas. The troop leader is free to direct the troop's fire, as well as engage targets of opportunity.

CONCLUSION

The methods of fire distribution and control mentioned here are not the only options available. It remains the responsibility of the commander on the ground to decide the best means given the terrain and tactical situation.

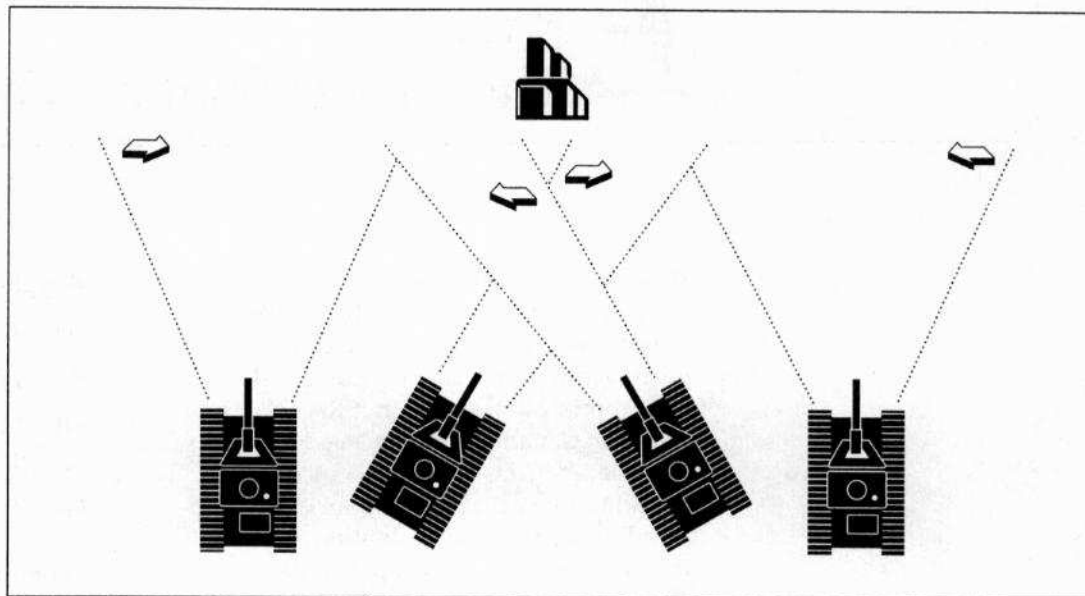


Figure 2 – Cross C of A Distribution.

All of these methods should be employed in conjunction with other control measures such as establishing priority of targets, open fire policies, rules of engagement (ROE), reference points and panoramic sketches. Each of these measures is to be used by the troop leader as time and the situation dictates.



Capt A.J. Zdunich (12^e RBC) is currently ADC to the Governor General. He was previously employed as a Tactics Instructor at the RCAC School and served with his Regiment on 2 rotations to the former Yugoslavia.

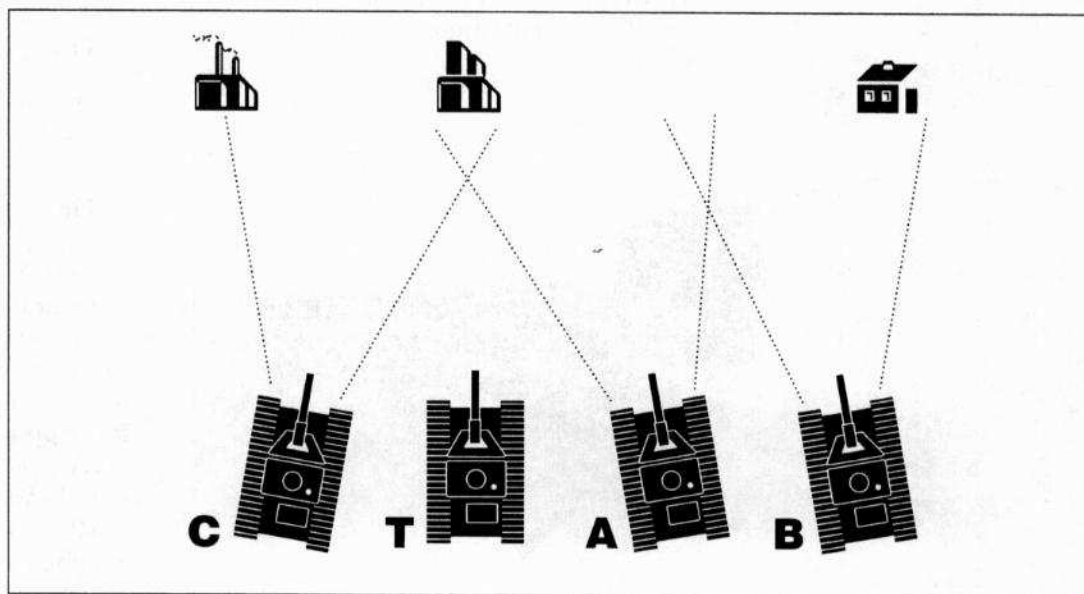


Figure 3 – Troop Arc Distribution.

ERYX

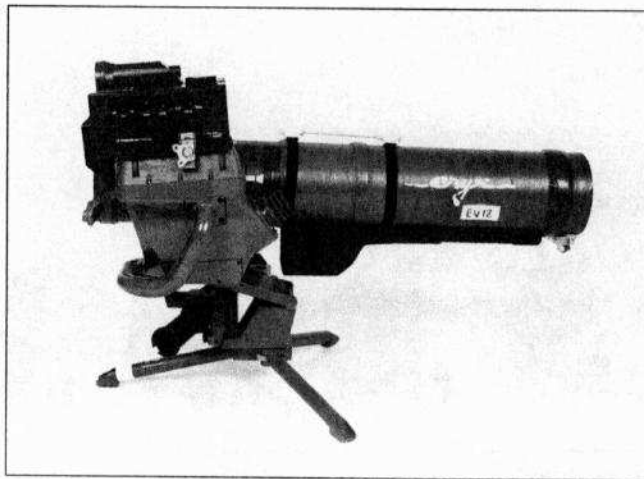
The Desert Snake – Fast and Deadly

By WO A. Royer

With the ever increasing protection provided to modern MBTs through the advent of ceramics and reactive armour, it became apparent that the current short range anti-armour weapon (SRAAW) issued to Canadian soldiers needed to be replaced. Consequently, France and Canada signed a memorandum of understanding for the joint evaluation and procurement of a new weapon system. This cooperation has provided our country with both technological and economic benefits as well as a new, effective addition to our anti-armour arsenal.

Characteristics

The ERYX is a wire guided, short range, anti-tank missile system with a range of 50 to 600 meters. It can be fired from enclosed spaces, in the prone, kneeling or standing positions. It has a 136mm double impulse warhead that will defeat MBTs with explosive reactive armour well into the 21st century. Technical specifications of ERYX are as follows:



The ERYX System with sight, missile and firing post.

a. Weight

- (1) Tripod – 4.5 kg;
- (2) Firing Post – 4 kg;
- (3) Missile in tactical package – 13.3 kg; and
- (4) Thermal sight – 3.5 kg (TBC).

b. Penetration

- (1) 900 mm rolled homogenous steel;
- (2) 2.5 m reinforced concrete; and
- (3) over 5 m of earth.

c. Missile Speed

- (1) 18 m/s during launch phase; and
- (2) constant acceleration up to 245 m/s at 600 meters.

d. Rate of Fire – approx 3 missiles per minute.

e. Firing Post

- (1) x 3 magnification;
- (2) field of view 230 mils; and

f. Flexibility – one or two man crew.

The ERYX missile will be issued to Armour Regiments for distribution to Recce Squadron's Support Troop and to the Infantry battalions as a section weapon. Recce Squadron will receive four systems for Support Troop as well as one EVIGS; "ERYX video Integrated Gunnery System", to train and maintain gunnery skills and a MES; "Moyen d'Entretien Soutien", a mobile test set.



WO ROYER during trials in France.

The initial cadre training for the personnel from the cell was held in Montpellier, France at the EAC (École d'Application d'Infanterie) during May/June 1994 timeframe with the live firing being conducted in Larzac. Upon our return from the course, the cell settled down to complete the courseware, training standards and training films required to properly train our soldiers. The cell was also involved as part of the vibration trial to see how the missile would withstand the well known shakes and bounces of our M113. A concurrent trial was also conducted to evaluate the stowage of the missile in both the M113 and the Grizzly.

When fielded, the ERYX will be equipped with a thermal sight, which is still under development. Although tactical employment of the system has not yet been determined, this sight will significantly increase our night fighting and observation capabilities. Although the ERYX appears to be a complicated weapon, it is not. While it is just starting to enter service in the French and Canadian armies, dramatic improvements

continue to be made in its development. Weaknesses discovered within the past year have been corrected, making it easier to learn and fire. To assist in the training both an indoor and outdoor simulator will be used.

Future activities for the cell include, returning to France to receive the instruction on the new thermal sight, thermal sight trials to be held in Gagetown and the initial cadre training at various schools in spring 1995 prior to the commencement of distribution of the system starting in the spring of 1995. Total distribution should be completed by late 1996. Without question the ERYX is an effective weapon and will dramatically increase our flexibility on the modern battlefield.

WO Royer is a serving member of the 12^e RBC. He is currently at the RCAC School on the IG Team and is a member of the CF ERYX Cadre Team.

Name the LAV Recce

By LCol S. Holder

Since no formal protocol appears to exist to name armoured vehicles, and based on the logic that soldiers should influence the christening of the combat vehicles that they will crew, readers were requested (*Armour Bulletin*, Vol 27 No 1, 1994) to propose names for the Canadian Army's new recce vehicle. Guidelines stipulated that proposals were to be bilingual names of mammals indigenous to Canada and a submission deadline of 30 September 1994 was established.


Reader response was excellent. Twenty-one individual submissions from Regular and Reserve infantrymen, gunners and crewmen were received from across Canada. Some submissions were group efforts or included multiple nominations and many were supported by detailed substantiation. All submissions were reviewed by the Commandants of the Infantry and RCAC Schools with a view to submit a single recommendation for approval by the Directors of Armour and Infantry and the Commander of the Army before final approval at National Defence Headquarters.

The list of thirty three suggestions spanned the spectrum of creatures that slither, saunter, hop, trot, and fly all over Canada and beyond. Their names ranged from ANTELOPE to WOLVERINE and included such novel monikers as ARMADILLO (or ARMoured DILDO). The original list was reduced to the six which met the two basic prerequisites: COYOTE, CARIBOU, PUMA, SASQUATCH, OCELOT, and RAT. The chain of command unanimously accepted and approved the name submitted by:

Corporal Drew A.G., RCAC School

Corporal Roy, N., Sherbrook Hussars, and

Corporal Warner T., CFRC Regina.

Now, when you and your colleagues heatedly debate the pros and cons of "sneak and peak" tactics, you no longer have to struggle to get your lips around "Light Armoured Vehicle - Reconnaissance". Instead just say COYOTE. 

LCol Shane Holder is an 8th Canadian Hussar and is currently serving with UNDOF in the Golan Heights. Previously he was the Chief Instructor at the RCAC School and was also chairman of the CTC LAV Recce Working Group.

The 56th Reconnaissance Squadron in the Sinai

By 2Lt Bradley T. Shoebottom

Despite the rich Canadian literature on the subject of Canadian peacekeeping,¹ the Armoured Corps involvement in Canadian peacekeeping efforts is not well known. This article will endeavour to tell the story of the first Armoured unit involved in peacekeeping, The 56th Reconnaissance (Recce) Squadron.

BACKGROUND: SUEZ CRISIS

On October 31, 1956, British and French airborne forces landed at Port Said in the Suez Canal in an effort to protect the vital Canal zone from closure during the second Arab-Israeli conflict. In an attempt to prevent a further expansion of the war, Canada's Minister of External Affairs, Lester B.



Lt J.G.H. Ferguson on patrol in the mountainous El Kuntilla/Ras El Naqb Sector.



Major R. Barry Tackaberry (left) and Major-General E.L.M. Burns (right) pose for a photo at El Qusaima, July 1957.

Pearson proposed to the United Nations that an impartial international force be created and deployed to separate the combatants. Both political and public support for the United Nations (UN) allowed 2,500 troops to be committed to take part in securing and supervising the UN mandate. Major-General E.L.M. Burns, a Canadian and then commander of the United Nations Truce Supervisory Organization, was selected to command.

In early December, General Burns decided a Canadian combat arms element was needed to assist in covering the large area that the UN needed to patrol. The Sinai, characterized by barren desert and large travelling distances, called for a motorized reconnaissance unit as the ideal organization to ensure the UN mandate was upheld.² Therein lies the birth of the 56th Reconnaissance Squadron and its operational deployment in March of 1957.

ORGANIZING THE SQUADRON

The 56th Reconnaissance Squadron was an ad hoc organization. Post war reductions in the Canadian Army did not call for reconnaissance squadrons in the armoured regiments. Due to the necessity of getting this squadron overseas quickly, soldiers from the Royal Canadian Dragoons (RCD) and the Lord Strathcona's Horse (Royal Canadian) (LdSH(RC)), joined together to create the Squadron. It was called the 56th Recce for the year in which it was formed and in order to quell regimental rivalries over who would lay claim to the unit's overseas service. It was further decided that it would wear the clenched mailed fist and encircling arrows of the Royal Canadian Armoured Corps as its cap badge. The squadron commander, Major R. Barry Tackaberry, along with the second in command, Captain J.A. Beaumont, and two troop leaders, Lt J.G.H. Ferguson

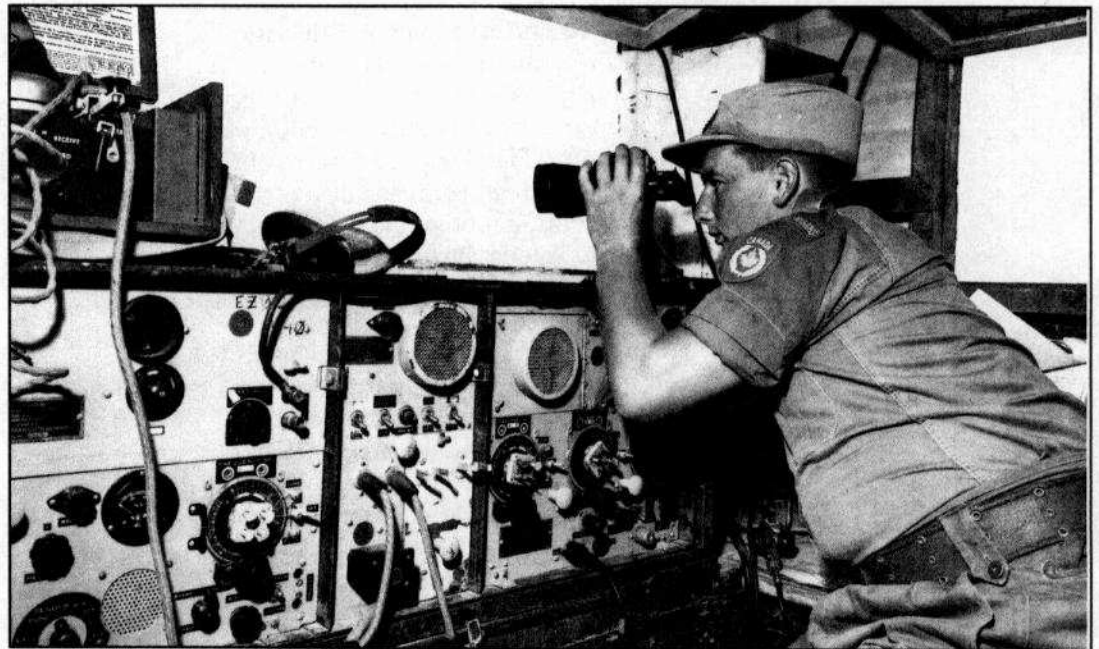
(2 Troop) and Lt J.B. Long (4 Troop), were RCD. The battle captain, Captain Norman A. Shackleton, the other two troop leaders, Lieutenants C.C. Van Straubenzee (1 Troop) and F.G. Woodrow (3 Troop) were Strathconas. The remainder of the squadron was split evenly between the two regiments.³

The Squadron was to be equipped with the Ferret four wheeled scout cars. Since it was ad hoc, the equipment came from all Regular Force units as well as Reserve.⁴ The Ferret had just entered service and this caused a few training and logistical problems. However, these were quickly overcome during the pre-deployment training in Petawawa. The squadron had its 23 Ferrets sent by ship to Port Said, Egypt in February, 1957. The 105 men of the squadron went by air in four drafts arriving March 17-20.⁵

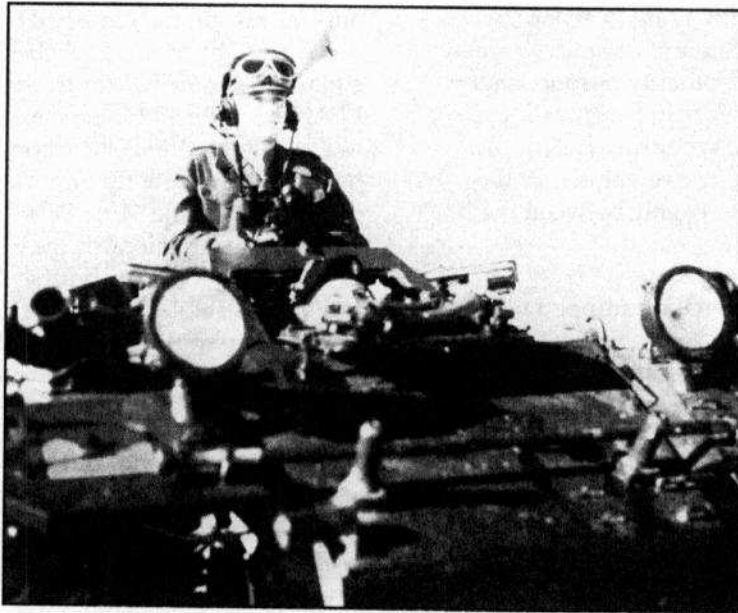
OPERATIONS

Upon arrival in Egypt the squadron picked up the vehicles at Port Said, set up temporary camp at Ismailia and began

anti-mine training. On April 8, after an aerial recon by Major Tackaberry, the squadron's four five-car troops moved to El Arish via Bir El Hasana. Not all made it to El Arish on time. One troop, which one has been conveniently forgotten, got lost going through the Mitla Pass and ended up being "entertained" by the withdrawing Israeli Army for a few hours.⁶ A permanent camp was established at Rafah on April 9 and active patrolling in the Ferrets began on April 16.⁷ The immediate concern for the squadron was the supervision of Israeli compliance of the UN instruction that the Israeli's must withdraw back inside their borders. They patrolled along the Gaza Strip / Israel and northern portion of the Egyptian/Israel border. Occasionally they patrolled the entire 130 mile length of the Armistice Demarcation Line. The Israeli withdrawal was multi-phased due to protracted negotiations with the UN over the assurance of Israeli security concerns and it took until September before the Israelis were finally back inside their country. The squadron slowly advanced across the Sinai as new sectors were vacated.



Unnamed Dragoon on OP duty, "Somewhere in the Sinai."



Undated photo of Lt C.C. Van Straubensee. From the lack of UN markings it appears to have been taken in Petawawa prior to the deployment.

Patrol areas in the Sinai portion of the buffer zone were changed regularly during the first year. On the May 2, the Yugoslavian Reconnaissance battalion relieved the Canadians and the 56th took over the sector operating out of El Quseima, observing the demilitarized El Auja zone through static observation posts and irregular patrols. In addition, to assist in rapid medical evacuation an airfield was established by the squadron at Hawkins' Field north of El Quseima. Lieutenant Ferguson also carried out a map confirmation of the many new tracks created along the border. On June 19 another change of sectors occurred. This time the squadron moved to relieve the Brazilians in the El Kuntilla/Ras El Naqb sector. It was here, however, that problems began to occur. Internal squadron and external long range communications to Camp Rafah were erratic, the Ferrets suffered abnormal tire wear in this rocky mountainous sector and the desert heat caused abnormal wear to rubber seals, starters and alternators. All this was complicated by the fact that supply and maintenance lines were 100 miles long back to Camp Rafah. A report on vehicle efficiency dated 8 June, 1957 noted that the

squadron had averaged 1,616 miles in the first three months of the mission. It also noted that there was a "need for special maintenance of grease, oil, air filters, tire pressures, and tire rotation" for the vehicles.⁸ Major Tackaberry notified General Burns of the problems in June but it was not until July 27 that the squadron received the welcome news that it was moving back to the Rafah sector.⁹ The Yugoslavians, in their more durable Staghounds, would patrol south of the Canadians to the Gulf of Aqaba. The permanent Canadian patrol sector would include the area from the intersection of the Gaza Strip, Israel and Egyptian borders near Rafah to the Yugoslavian battalion in the south. The Finnish contingent would be east of the Canadian patrol sector.

Camp Rafah became the main focus of Canadian activity after July 1957. The Squadron's support sections were collocated with the other Canadian logistic and communication support elements to UNEF. Two main patrol bases were also established. With four troops operating in the Squadron, each troop spent a week at outposts code named "Hamilton" and "St. John", and then a week at Camp Rafah or "Montreal".¹⁰ Starting in September, with a decrease in patrol activities and incidents, each officer with the exception of Major Tackaberry and Captain Beaumont were required to spend several weeks relieving UNTSO officers in Israel. As well, in the time honoured tradition of improving officer development, all the junior officers were required to write two essays relating to armoured warfare theory or peacekeeping practices. Squadron headquarters was moved to Camp Rafah on December 1 to cut down on road traffic.¹¹

Patrols generally lasted two to three hours and covered approximately 30 miles of sand dunes. Observation Post duty lasted three to five days. The troops generally preferred observation duty to camp routine so as to avoid the many regulations that camp life brought. All patrol activity had

to be carried out from the Egyptian side due to Israel's lack of consent to allow them on their soil. However, both sides were not allowed within 500 meters of the Buffer area delineated by barrels or rock pillars of the Armistice Demarcation Line. The Israeli side was easily identifiable by the irrigated crops. However, they often crossed into the Buffer Zone and had to be escorted out. The Bedouin, native nomadic Arabs to the Sinai, lived in the Buffer Zone and often caused problems for the contingent, crossing at will into the more lush Israeli side to graze their animals.¹² Each time the Israelis would become upset and the Squadron would have to escort the trespassers out. The Squadron was also concerned with the drug traffic through the Sinai and it often posed more of a security concern than the Israelis, Egyptians, or Bedouins.

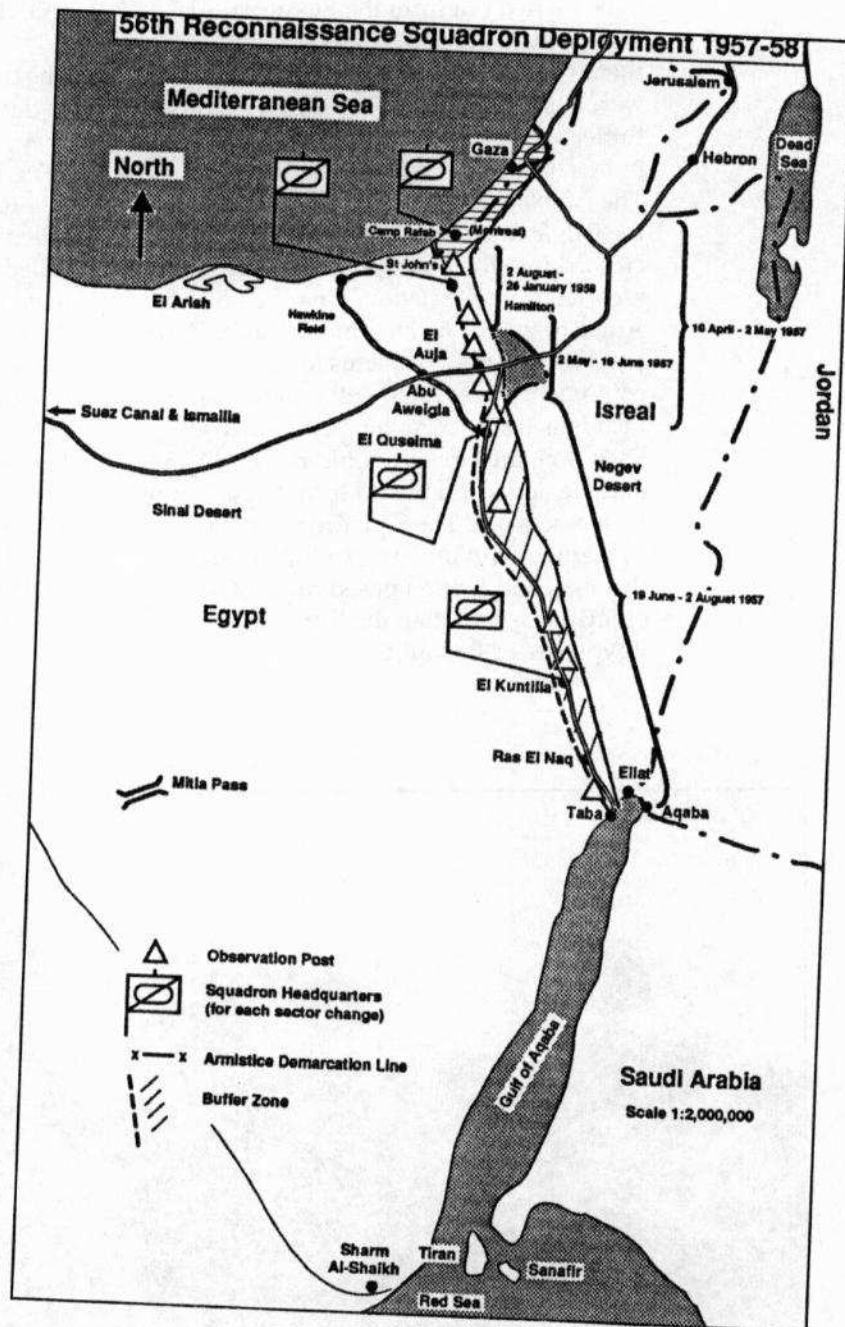
CONDITIONS IN THE SINAI

The desert environment proved to be just as dangerous as the two belligerent forces. Tragedy struck the Squadron on 10 May, 1959, when one of the troop leaders, Lieutenant C.C. Van Straubenzee, was killed while out patrolling when his Ferret rolled over in a soft sand dune near the main gate to Camp Rafah.¹³ He had been the fourth generation of his family to serve in the Canadian Army. An RCD officer, Lieutenant D.G. Robinson, replaced him.

The Bedouin caused other difficulties that had a direct impact on the Squadron. They moved the mines left behind by Israel in hopes of damaging a UN vehicle so they could salvage the parts and then sell them. To counteract this, the Canadians began to provide medical aid, deliver water, and



Col Bruce MacDonald, Director Armour, talks with the first draft of 56th Recce at their departure from RCAF Uplands.



pay social visits to get in the Bedouin's good graces. This did not help Major Tackaberry's driver, Trooper G.E. McDavid. On November 29, 1957, while on a routine duty run, Trooper McDavid's vehicle hit a mine. The blast killed him and injured fellow crewman Trooper D.h. Chevrefils' legs and pelvis.¹⁴ Lance Corporal E.G. Schut, also in the vehicle, suffered a broken vertebrae.¹⁵

Primitive conditions prevailed as the troops slept under the stars or in tents for most of the first year. There were shortages of just about everything. The summer heat was intense and the night was bitterly cold. Sand storms were frequent in the winter months and sudden thunderstorms came without warning.¹⁶ Malaria was bad that year, sending many UNEF personnel home early. The Bedouin would often steal anything

not nailed down and often entered camp to steal rifles. They even stole Major Tackaberry's uniforms in June.¹⁷

Towards the end of the tour Squadron Headquarters became a lean organization. Major Tackaberry contracted malaria and was in hospital from 19 November to 16 December before being repatriated back to Canada, Capt Shackleton had returned to Canada on November 26 to train the replacement squadron, leaving Capt Beaumont to take over as the only officer left in Squadron Headquarters. These officer shortages may have had an influence on relocating Squadron Headquarters back to Camp Rafah where the troop leaders could spell off some headquarters responsibilities.

January 1959 brought an end to the 56th Recce Squadron with the arrival of the VIIIth Canadian Hussars Recce Squadron commanded by Major H.I.T. McLeod. The 56th Recce was disbanded and its members sent back to their parent regiments. The Hussar Recce Squadron had been created especially for the task and had formed in October 1957 back in Canada. From this point on, all replacement squadrons came from the four Regular armoured regiments in turn.

CONCLUSION

From the description offered above it can be seen that this was a most unusual mission for the Armoured Corps. The basic patrolling and observing skills employed by the 56th Recce were the same as those employed in wartime, but for a more peaceful purpose. The task they had and their area of responsibility for best suited to a highly mobile unit like a reconnaissance squadron. The 56th Recce did the job admirably and with a great degree of success. They made the best of their situation and always looked for new and better ways of accomplishing their mission.

This brief look at this particular mission points out several glaring weaknesses in the Armoured Corps at this time. The first was that a reconnaissance squadron was necessary in each of the regiments. This was quickly recognized and all Regular Force Armoured regiments shortly thereafter established a reconnaissance squadron. The second observation was that Armoured Corps needed better vehicles so that they could manoeuvre in sand and operate in extreme temperatures. The Ferrets were too complex for prolonged desert operations. A switch to Jeeps would occur several years later. The only misfortune was that this mission cost the Corps one of its proudest military family members.

The end of this mission would not mean the end of peacekeeping for the Armoured Corps. Canadian Recce squadrons would continue to serve in the Sinai until 1966. There was also peace to be kept in a place called Cyprus, Yugoslavia, and Somalia. But, these are separate stories to be told elsewhere.

2Lt Shoebottom is an ROTP candidate currently awaiting Phase III at the RCAC School. He is also researching a series of articles about Canadian Armoured Units on peacekeeping operations.

1. See for example E.L.M. Burns, *Between Arab and Israeli*, (Toronto: Clark and Irwin, 1962), Fred Gaffen, *In the Eye of the Storm*, (Toronto, Deneau and Wayne, 1987) and J.L. Granastein and David J. Bercuson, *War and Peacekeeping*, (Toronto: Key Porter Books, 1991).
2. United Nations, *The Blue Helmets*. (New York: Department of Public Information, 1985), p.54
3. National Archives of Canada, Record Group 24, Volume 18,472, *War Diaries: 56th Reconnaissance Squadron*, (Henceforth known as *War Diaries*), Nominal Roll, Appendix A to Daily Orders, Part 1, Number 9, 23 March 1957.
4. Brereton Greenous, *Dragoon*, (Ottawa: Campbell Corporation, 1983), p. 424.
5. *War Diaries*, March 1957.
6. Interview with N.A. Shackleton by author, Kingston, Ontario, November 20, 1994.
7. Gaffen, *Eye of the Storm*, p. 40 and 51.
8. *Ibid.*, "Vehicle Efficiency Report" 8 June 1957, (unsigned).
9. *Ibid.*, June-July 1957. On July 25 the war diary notes that the squadron was reduced to eight operational Ferrets out of 23. Clearly something had to be done.
10. Greenous, *Dragoon*, p. 432.
11. *War Diaries*, December 1957.
12. Greenous, *Dragoon*, pp. 431-2.
13. Larry Worthington, *The Spur and the Sprocket*, (Kitchener: Reeve Press, 1968), p. 123. Lieutenant Van Straubensee was buried at the British War Cemetery at Moascar. The Ferrets would be replaced with more agile jeeps in 1958.
14. Canada, Department of National Defence, Directorate of History, File # 77/42, "UN Casualties 1957-1974." Trooper McDavid was buried at Moascar.
15. *War Diaries*, February 1958. Lance Corporal Schut received the Chief of the General Staff Commendation on February 8, 1958 for his act of crawling three miles, while severely injured, to get help.
16. Corporal D.F. Schut, "A Few Memories of Sun and Sand" *The Springbok*. Vol 4, Summer 1967.
17. *War Diaries*, June 1957. This was despite an 18 foot fence, guard towers, and searchlights. Security was immediately tightened and a certain nervousness occupied the camp.

Future Corps Structure

Editor's Note: The following extract from the RCAC Association's Annual Review and Membership Directory, is a syndicate report from the RCAC Conference held at CFB Gagetown in September 1995.

The syndicate was directed to formulate Corps end-state goals as and when fiscal realities compel the downsizing and/or restructuring of the Army. Also to be addressed was an appeal for support for the restoration of the Halifax Rifles in an armoured role, and certain concerns of retired officers in LFCA.

OBSERVATIONS

Fundamental guidelines are essential and must be consistent with the Army Commander's vision and the Canadian Forces combat development process. Certain implementation themes devolve.

Support for the resurrection of an armoured unit is not timely, despite the desirability of a national armoured geographic footprint.

Complaints emanating from Ontario in respect of communications difficulties and misunderstandings within the Army chain of command are beyond the purview of the association.

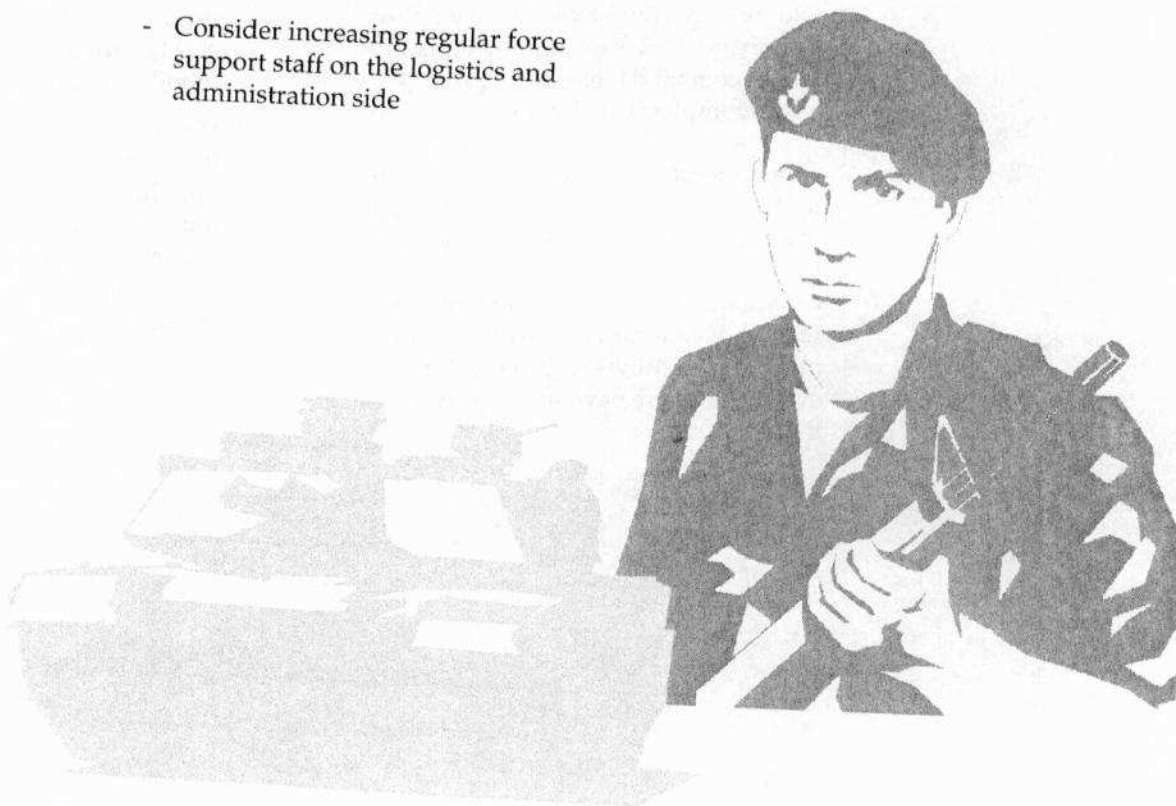
RECOMMENDATIONS

Fundamental Guidelines

- The Corps must maintain both tank and reconnaissance capabilities
- The Squadron is the fundamental building block
- The Corps requires appropriate national geographic distribution
- The rules, characteristics and principles of armour conform to the Army Commander's vision
- The militia component of the Corps is required to reinforce, augment and sustain the regular force component on an individual and sub-unit basis, and to provide a framework for mobilization/expansion
- While the militia could equal regular force levels in the event of national mobilization, a ratio of 3:1 in terms of individuals enrolled versus individuals available to deploy is required, in the absence of employment protection legislation

Themes

- Maintain the footprint on Canadian society
 - the concept of the citizen-soldier must be maintained
 - the presence of militia organizations across the country is important to the profile of the military
 - short-term financial constraints should not lead to arbitrary disbandment of units
- Conduct business better
 - Provide the maximum possible strength in the reserves to meet force generation requirements
 - Rationalize militia districts
 - Reduce operations and maintenance costs
 - Reduce Class B annotated A employment
 - Consider increasing regular force support staff on the logistics and administration side
- Rationalize units
 - Re-role units if necessary
 - Amalgamation to be considered as a second alternative
- Rationalize establishments
 - Reduce from regimental to squadron strength in certain cases if necessary
 - Preserve unit identity
- Missions and tasks
 - Simplicity
 - Training is the common denominator
 - Preserve individual training profile



RCAC – Mission Statement

By Lieutenant-Colonel G. de V. Domville, President RCACA

The Royal Canadian Armoured Corps Association (Cavalry) was founded in 1910 as the Canadian Cavalry Association. Until this year, membership was limited to serving and retired Armoured Corps Officers. At the last Annual General Meeting held in CFB Valcartier, it was decided to open membership to non-commissioned members.

The Association is in the process of renewal in light of all the changes going on in the Canadian Armed Forces. These changes are viewed by the Association as an opportunity to re-energize and re-align all of our resources and efforts in the best interest of the Corps and our membership. As part of this commitment, the Association has gone back to its roots and redefined its aim, vision, values and operating principles. Although still subject to revision, our Mission and Vision are as follows.

MISSION

The aim of the Royal Canadian Armoured Corps Association (Cavalry) is to promote the best interests of the Corps by:

- a. influencing public opinion and defence policy;
- b. providing a forum for dialogue;
- c. informing and educating;
- d. fostering esprit de corps; and
- e. preserving its heritage.

VISION

In order to achieve our aim, the Association will be a dynamic and progressive organization committed to the achievement of an Armoured Corps comprised of trained soldiers equipped with modern AFVs in sufficient numbers and organized in a regimental structure that provides the essential armour functions to a general purpose, combat capable army.

The Association is looking forward to the future with optimism and a collective willingness to work together in achieving our mission. We count on the active involvement and participation of our whole membership of over 800 to help us succeed. For those readers who are not already members of the Association, we welcome you to apply by completing and returning the attached tear-off application form.

NAME:	RANK:
DECORATIONS:	
ADDRESS:	POSTAL CODE:
TELEPHONE (BUSINESS):	(RESIDENCE):
REGIMENTAL AFFILIATION:	
SPONSOR: LCol D.W. Wright	