

ARMOUR
BULLETIN
DES BLINDES



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This Bulletin is published under the authority of Col C. MILNER, CD, Director of Armour. Views expressed are those of the authors and do not necessarily reflect official policy or opinion unless otherwise stated.

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CONTENTS


<u>ARTICLE</u>	<u>AUTHOR</u>	<u>PAGE</u>
CONTENTS		
EDITOR'S COMMENTS	LCOL R.N. LAWRENCE, CD	2
COLONEL COMMANDANT'S FOREWORD	BGEN S.V. RADLEY-WALTERS, DSO, MC, CD	3
DIRECTOR OF ARMOUR'S FOREWORD	COL C. MILNER, CD	5
CORPS UPDATE	THE UNITS	7
RCAC MILITIA COMPETITION	CWO K.H. MAYBEE	23
THE WHIPPET	CAPT H.R. EGNER	26
ARMOUR BULLETIN 10TH ANNIVERSARY	CAPT J.A. STUCKART	28
ISN'T THERE A NEED FOR A CANADIAN MINE PLOUGH?	LCOL J.D.W. PETERS	34
A MINE CLEARING ROLLER SYSTEM FOR LEOPARD	CAPT N.A. NICKLES	37
IFCS AND II	CAPT R.S. RICHARDS	41
WITH GENERAL RAD IN NORMANDY	CAPT M.S. DAVIES	44
AFV RECOGNITION TEST		47
COUGAR AN ASSESSMENT		49
EYES AND EARS	LCOL G.F. ERVING, CD	56
REVIEWING REGIMENTAL ROOTS	CAPT D.B.J. SNYDER	59
MERIT BOARD 20	LCOL W.B. FOX, CD	61
BOOK CORNER	LCOL A.P. CONRADI CAPT J.N. SNELL, CD	66
ANSWERS TO AFV RECOGNITION TEST		70

EDITOR'S COMMENTS

This edition marks the tenth anniversary of the Armour Bulletin. Some readers may feel that a certain amount of fanfare is warranted; some may feel that an anniversary cover and theme would be appropriate. We have chosen to mark the occasion with a feature article in the belief that a real tribute lies not in fanfare or gimmickry, but in acceptance by the Corps of its professional journal.

The fact that the Armour Bulletin has been accepted as a viable journal is demonstrated by the willingness of members of the Corps to contribute to its content. And therein lies the success story of the tenth anniversary issue. Members of the Corps have responded to the request of our Colonel Commandant to support the Armour Bulletin. This issue, more than any other to date, is truly representative of the Corps. It focuses on the past, the present and the future as seen by members representing the full spectrum of Corps employment.

I congratulate and thank all contributors. Your efforts and support are the true indicators of success. Your interest and participation are so much more meaningful than empty fanfare.


R.N. Lawrence
Lieutenant-Colonel
Commandant Armour School



COLONEL COMMANDANT'S FOREWORD

As stated in the last issue of the Armour Bulletin, we now have an excellent medium for maintaining communications within the Corps. We also have a responsibility to ensure that the Militia and Regulars' lines of communication remain open by using this Bulletin. Information should now flow freely to all members in our Regiments, School and those on Staff. At conferences and meetings we all seem to have things to say and new ideas to expose. I hope that members of the Corps will live up to this challenge and submit articles to the School for publication, so that we continue to maintain a high standard of dialogue within the Corps. The leadership for achieving this goal must come from the Commanding Officers to create the interest and encourage their people to express themselves through this medium. I shall be interested in future editions to see whether the Militia and Regulars support the Armour Bulletin and use it to expand ideas and concepts on Corps doctrine, organization, tactics and equipment. Don't leave it to the School or the Directorate to pull the whole load!

We had a very successful Corps conference at Borden this past September and it was well attended. Lt Col Irv Matheson was elected for another year as President. He and his staff organized an interesting agenda which produced eleven good Corps resolutions. These were presented to the conference of Defence Association at its annual meeting in Ottawa in January 1983. Base Borden had been chosen as the site for the conference of our 60th Anniversary of the Corps and marked a return to our birthplace. A simple memorial service was held in Worthington Park beside General Worthy's grave, which allowed each one of us to stop for a moment of silence and say "Hi" to Worthy. As he so often remarked, "we had time to recharge our batteries". On this occasion, it was fitting that Larry and Peter Worthington along with Pop Saunders, "Worthy's" World War I Driver, joined us for this memorial ceremony.

At the Association Mess Dinner, I presented to the 8th Hussars, the Worthington Trophy for the Best Militia Regiment. My congratulations go out to the Hussar family since the past year was a banner year for them. The Regular Regiment had won the Ram's Head Trophy a couple of months earlier, for being the best Regiment in the Annual Gunnery Competition. Incidentally, the "Ram's Head" is the insignia on Gen Worthy's coat of arms. I mentioned at the time that it is always more difficult to hold on to a trophy than winning it, and this adds to the inter-unit rivalry and in turn, improves our standard of soldiering.

General Bill Howard presented a beautiful silver Sherman Tank Trophy which was competed in 1982 for the first time. It is presented to the Militia Regiment which has shown the greatest improvement and was won by the Royal Canadian Hussars. We thank you Bill, for your kind generosity and congratulate LCol Roman JARYMOWYCZ and his Regiment, as the first winners. Unfortunately, no competition was held for the Reconnaissance Trophy. Somehow, we have to find a way to compete, so that we challenge Regiments in their reconnaissance skills. A trophy has already been designated for the Regular Regiments but was not competed for last year. Competitions are an excellent means of improving the standard of armoured skills. They make us prepare, practise and work towards a common goal - "which is being the best in the Corps" so let's ensure we keep the flame burning for competitions for both Regulars and Militia.

On that note, I will end by repeating a verse from James Graham, Marquis of Montrose 1612-1650.

"He either fears his fate too much
or his deserts are small,
who dare not put it to the touch,
to win or lose it all".

Shoot straight!

Gen Had.



DIRECTOR OF ARMOUR'S FOREWORD

It was in July 1980 that I assumed the position of Director of Armour and I have found the three years since to have been challenging, rewarding and frustrating. Challenging because of the difficulties we have had to overcome; rewarding because of the progress that has been made in the areas of organization, doctrine and training; and frustrating due primarily to the lack of progress from our efforts to acquire tanks for the Canadian based Regiments.

Our limitations of soldiers and equipment of a few years ago have been reduced somewhat by minor manpower increases and equipment acquisitions and redistribution. Cougar has been issued to both Regular Force and Militia Regiments, and, although it is not a tank and has shortcomings as a tank trainer, I have been most impressed by the professional manner in which our soldiers have adapted to it and with the way they use it. At least some technical skills and armour tactics are being retained or re-established in both Militia and Regular Force Units. Until the Canadian Army receives the tanks it so desperately needs, our Cougars in Canada, and Leopards in Gagetown and Germany, are keeping alive the armour skills and techniques that are so vital to our Corps and the combined arms team.

We must all press on with confidence and optimism, and it is the soon-to-be issued "Armour Guide", (successor to "Armour 81-85") that provides the guidance the Corps needs to meet the challenge of the future. This publication represents the collective judgement of the Armour Branch. It is a living document, continually updated by the Armour Board, responsive to the needs of today and the requirements of tomorrow, and as such is a working document for all members of the Corps to Commanders and their staffs throughout the Canadian Forces.

The Armour Corps is involved again in a challenging and busy year. The RCD are competing for the Canada Cup Trophy, and C Squadron will again fly over for the fall exercises. LdSH (RC) and 8CH are actively involved in RV 83 and the 12 RBC are serving another UN tour in Cyprus. All Militia units have been involved in active training programmes during the winter months and their training is being confirmed at numerous weekend exercises and summer concentrations. As in the past, militia soldiers are actively supporting Regular Force units at home and abroad. More and more we see regular and militiamen training side by side achieving the common goal of preparedness for war.

As my tenure as Director draws to a close, I am fully aware and most appreciative of the support I have received from all members of the Corps. The dedication, professionalism, energy and enthusiasm of the armour soldier has been nothing less than outstanding. I continue to be inspired by them. Colonel Bob Billings will succeed me as Director in July. With his leadership and the continued support of all members of the Corps, I have no doubt that we will confidently and successfully face the challenges that lie ahead. Semper Optimus.



C. Milner
Colonel
Director of Armour



CORPS UPDATE

CORPS UPDATE

EDITOR'S NOTE:

What follows is a series of brief updates from several of the Reserve and Regular Force Armour units. It is the first step towards a "central publication" which satisfies the needs of all the Corps. As the Colonel Commandant and others have recently pointed out, it is a solution to the problem of increasing communication within the Corps.

We, at the Bulletin, would be much amiss if we did recognize the efforts of Lieutenant Colonel R.J. Jarzymowycz, CO of the Royal Canadian Hussars. Much of the information presented in this issue was collected by his unit in preparation of an Association Journal. Responding to the requests of the Colonel Commandant and Director, the information collected was forwarded to the School for publication in the Armour Bulletin.

It is realized that some of the information presented is dated, however, it is hoped that succeeding issues of the Bulletin will continue to "inform us all".

ROYAL CANADIAN HUSSARS UPDATE

The Hussars have had an excellent training cycle for both the Cougar and recce troops and this culminated in the District FTX in early May, with the unit fielding one Cougar Troop, one "Tank" troop in Lynxs, as well as an overstrength Infantry Platoon for the enemy force.

During the summer the unit placed personnel on a wide variety of courses ranging from RESO to Vehicle Technicians, from TQ 3 Cougar to Cook. In the Quebec Militia concentration the Hussars were able to form a 120 man combat team, with one Cougar Troop, two recce troops and an assault troop, as well as echelon. This number of effectives was larger than any other Regiment involved.

Internally, the Regiment said goodbye to CWO Anley, who retired after a career that started in WW II. His replacement as RSM is CWO "Junior" Layne, who has returned to the unit after a brief stint with the R de Hull.

Socially the unit has had Balaclava dinners, a Christmas Dinner as well as a Regimental Ball and attendance at the Hunter Trials in September. We were unable to send visitors to the 13/18th Hussars or the Queen's Royal Irish Hussars this year, however we expect our Brother Regiments to send us a visiting party in the early spring.

To date the unit has had high attrition of people joining the Regular Force but as it stands the unit can boast of four RESO-trained Cougar Troop leaders. We look forward to the rest of the training year with enthusiasm. NON NOBIS SED PATRIAE.

NON NOBIS SED PATRIAE

ROYAL CANADIAN HUSSARS (A BRIEF HISTORY)

1803 Montreal Cavalry
1812 Platt's Troop - Action in War of 1812
1828 Royal Mtl Cavalry Guidon presented
1837 Action in Rebellion
1866 - 70 Action against Fenians
1879 6th Duke of Connaught Hussars (Mtl)
1898 Duke of York's Hussars (17th)
1899-1900 South Africa - First Battle Honour
1914 WW I
1920 Motor Machine Gun Bde Incorporated
1939 Regiment pays off Horses, WW II (Europe)
1958 Amalgamation 6th/17th
1977 Second Guidon

Regimental Marches: St Patrick's Day (Gallop)
Men of Harlech (Slow)
Bonnie Dundee (A Sqn)

Affiliated to: 13/18 Royal Hussars (QMO)
Queen's Royal Irish Hussars
Skinner's Horse

SASKATCHEWAN DRAGOONS UPDATE

The Saskatchewan Dragoons is the present name of the militia unit first originated in Moose Jaw in 1905, the year the province of Saskatchewan entered Confederation. This historical association was recognized in 1949 with the creation of our present badge, which has as its centre-piece the Saskatchewan Coat of Arms.

Battle Honours are as follows: (Those in script letters are emblazoned on our Guidon):

- a. Mount Sorrel
- b. *SOMME 1916*
- c. Ancre Heights
- d. *ANCRE 1916*
- e. Arras 1917 and 1918
- f. *VIMY 1917*
- g. *HILL 70*
- h. *YPRES 1917*
- i. *PASSCHENDALE*
- j. *AMIENS*
- k. Scarpe 1918
- m. *DRCOOURT-QUEANT*
- n. Hindenburg Line
- o. *CANAL DU NORD*
- p. *VALENCIENNES*, and
- q. France and Flanders 1916-1918.

Historical organization is as follows:

- a. July 3, 1905: "95th Regiment" originated
- b. June 1, 1909: Redesignated "95th Saskatchewan Rifles"
- c. April 1, 1912: formed into two regiments - "105th Regiment" and "95th Regiment"
- d. September 1, 1913: redesignated "95th Saskatchewan Rifles"
- e. March 15, 1920: amalgamated with "60th Rifles of Canada" to form "The South Saskatchewan Regiment"
- f. May 15, 1924: "The South Saskatchewan Regiment" reorganized to form:
 - (1) "The Assiniboia Regiment"
 - (2) "The Weyburn Regiment"
 - (3) "The Saskatchewan Border Regiment"
 - (4) "The Regina Rifle Regiment", and
 - (5) "The South Saskatchewan Regiment"
- g. September 15, 1924: "The South Saskatchewan Regiment" redesignated "The King's Own Rifles of Canada"

- h. February 4, 1949: redesignated "20th Saskatchewan Armoured Regiment"
- i. July 31, 1954: redesignated "The Saskatchewan Dragoons (20th Armoured Regiment)"
- j. May 19, 1958: redesignated "The Saskatchewan Dragoons".

Other historical details are as follows:

- a. Allied with "The King's Royal Rifle Corps"
- b. Regimental March: "Punjab"
- c. Motto: "Esprit D'Initiative, and
- d. Colors: Myrtle Green and Red.

Our Guidon was presented on 3 May 1970 by the Governor-General of Canada. On 13 June 1970 the unit was reduced from "regimental" to "independent squadron" status.

On 1 April 1972 Lieutenant-Colonel David V. Currie, V.C., a native of Moose Jaw and Sergeant-at-Arms in the House of Commons was appointed the first Honourary Lieutenant-Colonel of the unit.

The Saskatchewan Dragoons were instrumental in holding a 75th Militia Reunion in June 1980, celebrating the unit's 75th year. Captain R.P. Hammond was the president of the successful reunion.

The unit held a Change of Command Parade on 31 Oct 82. The new commanding officer is Major A.J. Stow, C.D.

THE ELGIN REGIMENT (RCAC) UPDATE

by OCDT V.T. Van Dieprn

The unit had a busy year of training. Several of our personnel went to Gagetown on callouts at the Armour School where they underwent extensive training in the many Armour Vehicles used there.

Ex Arrowhead, the District's Ex, was held on 28-30 May 82. The Ex consists of several competitions including Battle Efficiency, SMG, FN Firing, First Aid to name a few. The unit placed 4th overall.

During the summer a SRTP Course was held at the unit. 19 Candidates were loaded on the course, 18 of the candidates passed. Several unit personnel also went on career courses throughout Canada. All unit personnel did well on the courses attended.

During the fall unit members will begin Recruit and Basic Training for the new recruits, TQ 1 Training and Radar AN PPS 15 Training. Several Sqn Ex have also been scheduled as well as the annual classifications.



BRITISH COLUMBIA DRAGOONS UPDATE

The British Columbia Dragoons were born again into the Armour Corps when four shiny Cougars arrived in Vernon in late August 1981. To add to our training The 44th Field Squadron (RCE), Trail, B.C. gave the regiment an excellent training aid - a 1½ kilometer Cougar driving track - which tests the metal of any black beret.

The Regiment has been training in both Recce and Armour skills, using our freshly trained Cougar drivers and gunners to drill into shape a new cadre of Armour militia soldiers.

In December 1981, LCol R.R. Blackwell, CD turned over command of our 74 year old Regiment to LCol J.G. Williamson, in Vernon. BGEN Heppell, CD was the inspecting officer.

The Regiment fired her Cougars during the Easter week at Yakima FC, Washington. The Regiment now has two soldiers trained Cougar crew commanders, eight soldiers trained Cougar gunner and twenty-one soldiers trained Cougar driver.

8TH CANADIAN HUSSARS (PRINCESS LOUISE'S) (MILITIA) UPDATE

by Captain (W) D.A. Craig

During the past training year 1981/82 the Regiment met all of its goals with respect to Recce training but was somewhat restricted due to a lack of serviceable vehicles. The Regiment now has sufficient qualified personnel to field a Recce Squadron and the lack of TQ2 Recce qualified personnel was overcome during this past summer with several personnel qualifying at MTC Aldershot, in Nova Scotia.

The Regiment has also been tasked with providing a Cougar troop by 1983 and at this time it appears that we will experience little difficulty in accomplishing this goal. During the past training year some 30 Regimental personnel qualified as Cougar drivers and 20 personnel qualified as Cougar gunners. Additional personnel also qualified this past summer by attending courses on the Matawa Plain, CFB Petawawa, Ontario.

In addition to the above training, during this past training year and summer several NCOs and officers obtained higher rank qualifications, or were trades qualified not only as crewmen but in other service Support roles as Sup Techs or Adm Clerks. The Regiment also participated in both the District and Area Small Arms Competitions during this past spring and summer. Our shooting team was very successful in the Eastern New Brunswick Militia District Competition capturing The Honourary Lieutenant Colonel's Trophy for the best SMG Team; and The Honourary Colonel's Trophy for the best LAR Team.

As the new training year begins, the Regiment will be conducting regular Recce training and continue to advance in Cougar training, should the budget permit. The Regiment will consist of a Recce Squadron, a Cougar Squadron and a Headquarters Squadron.

EVENTS OF IMPORTANCE

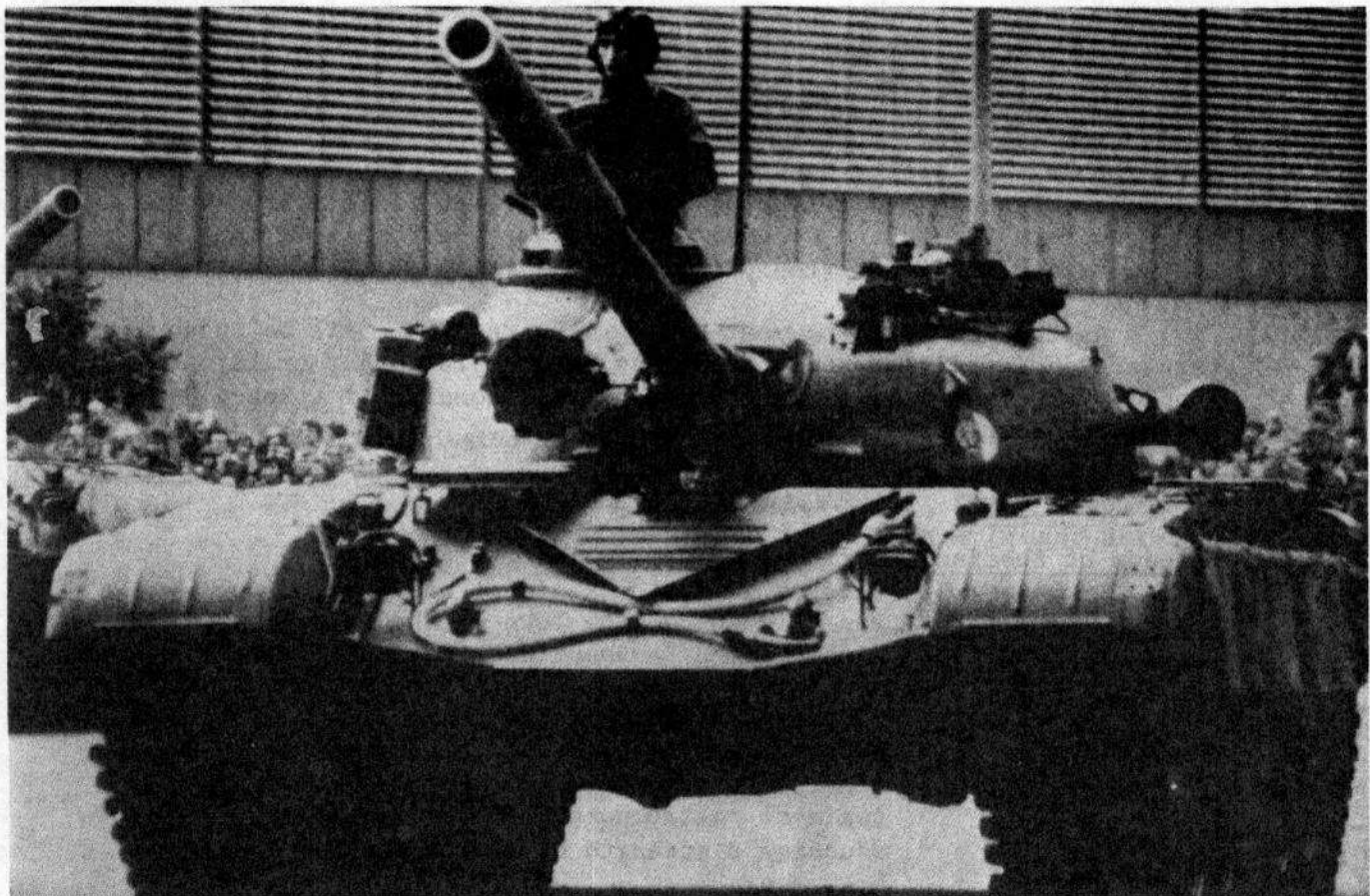
Freedom of Shediac - during the past training year on 16 October 1981, the Regiment was granted the "Freedom of the Town of Shediac". Although the Regiment does not currently maintain a squadron in Shediac, during the early history of the Regiment a Squadron was situated in this beautiful seaside resort town. Our Regular Force Regiment participated by providing a squadron's strength of men from CFB Petawawa.

Change of Honourary
Lieutenant-Colonels

- On 6 November 1982, Lieutenant Colonel I.M. Holdane retired as Honourary Lieutenant-Colonel of the Regiment. The incoming Honourary Lieutenant-Colonel, Lieutenant Colonel H.S. Gamblin was a past Commanding Officer who took the Regiment overseas at the beginning of World War II. Lieutenant Colonel Gamblin, also a veteran of World War I, at 82 is still a vital and active member of the 8th Hussar Association. A contingent of our Regular Force Regiment also participated in the ceremonies which took the format of a Regimental "roll past", of 1/4 Ton jeeps and Cougars.

8th Canadian Hussar
Association Reunion
1983

- a major 8th Hussar Reunion will be held in Sackville, New Brunswick on the week-end of 30, 31 July and 1 August 1983. This reunion will be co-ordinated through the militia Regiment and will see former as well as serving Hussars attending from all parts of Canada and the United States.



STRATHCONA UPDATE

by Lieutenant R.A. Roach

The Regiment started the year with B Squadron participating on RAPIER THRUST 82 and RHQ involved with EXPLOSION DART during one of the coldest of Alberta's winters. In addition to winter manoeuvres, the Strathconas fielded one of the top biathlon teams in the Canadian Forces. This challenging and exciting event has been enjoyed by participants and spectators alike.

The spring exercise commenced with Regimental gunnery in Wainwright and developed into the 1 Brigade Concentration. One of the highlights of WAINCON this year was the emphasis on solid infantry-tank cooperation. This culminated with a battle group live fire exercise which demonstrated the high standard of field training in the Army of the West. In addition a 40 man troop joined the 3 RCHA Contingent on the 1982 Spring rotation to Cyprus.

An interesting highlight of summer activities in the Regiment has been the participation of the Ceremonial Mounted Troop in various events in the West. This year's activities included the Fort Garry Horse 70th Anniversary in Winnipeg, the Kelowna Regatta in B.C. and a trophy for "best grooming and fitness" in the Calgary Stampede Parade.

Regimental routine for the fall includes referresher training, Cougar gunnery and D&M courses as well as small arms qualification. Squadron level fall exercises are planned to shake out the cobwebs and appropriately initiate the new Troop Leaders and Crews.

The Regiment is looking forward to hosting 11 QEG/ARMD in October and to a myriad of social events relating to Remembrance Day and the Christmas holidays.

8TH CANADIAN HUSSARS (PRINCESS LOUISE'S) UPDATE

The spring season has been very active for the Regiment including a variety of social, ceremonial and competitive events.

The birthday weekend was an unqualified success. It featured a mixed dining-in, various luncheons and receptions all topped off with a Regimental Dance. The Parade itself, conducted during a frigid spring shower, featured an impressive roll past.

Regimental activity was punctuated by Squadron Training, 10 mile marches, being shelled (albeit safety ensconced underneath 18 inches of overhead cover) and a good deal of maintenance.

The officers bussed to Gettysburg in May to study the battle and the delights of that city. This trip was the culmination of the fall and winter officer's study which dealt with the early years of the American Civil War.

The crowning touch of the season, however, was the Regiment's victory at the 1982 Cougar Gunnery competition. With this success came the Ram's Head Trophy, emblematic of Cougar Gunnery supremacy in the Canadian Army.

The competition was planned by the Armour Staff at FMC and was supported totally by 8CH personnel and resources. Teams were entered from the Lord Strathcona's Horse (Royal Canadians), 12e Regiment Blindé du Canada and the 8th Canadian Hussars (Princess Louise's) and Armour School. The competition consisted of two phases: phase one, which comprised direct fire engagements; and phase two, a semi-indirect troop engagement.

Shooting took place on the eighth and ninth of June. The competition was intense down to the last moment. Once the firing ceased the pad area was cleared to maintain secrecy. Suspense hung like a fog as teams and control staff gathered to hear the results. And then it was known, incredibly, after two days shooting, both the 8CH and LdSH teams had finished deadlocked for first place. The tie breaking rule was applied: in case of a tie, the highest score in the phase one shooting would determine the winner. The 8 CH score was 35 points ahead of LdSH, the Hussars has captured the Ram's Head Trophy. Enthusiastic celebration followed, with parties carrying on late into the night.

A notable event took place on July 5, during the recent Canadian visit of Princess Anne. Members of the Regiment, led by Gen Quinn, attended a Garden Reception held by the Princess at Government House in Ottawa. Everyone present had an opportunity to speak with Her Royal Highness and enjoy the refreshments graciously provided for the occasion.

The Regiment had numerous summer commitments. A Squadron supported Militia AVGP driver and MITCP Officer Training. Recce Squadron carried out extensive weapons and refresher training as well as performing the Immediate Reaction Unit task. They have also carried out a successful Summer Camp and Watermanship Training Exercise on the rivers north of Petawawa.

B and Headquarters Squadron supported the Militia Armoured Concentration held in Grayling, Michigan 21 Aug to 03 Sep. B Squadron provided all of its vehicles and manpower to carry out Militia AVGP Driver and Gunnery Training. Headquarters Squadron supported the extensive administrative support required for an event of that nature.

Currently, the Regiment has embarked on a full slate of fall training. A Squadron is carrying out a Crew Commander's course, Cougar open range firing and continuation training. B Squadron has similar crew training planned as well as a Pre-Combat Leaders Course for the Regiment.

Recce Squadron is conducting Gunnery refresher training and static firing. Headquarters Squadron is conducting small arms refresher training and NBCW training.

The final weeks of September are scheduled to include Troop and Squadron training all culminating in Exercise Punic Raider, the fall Regimental Exercise. Following that, the Regiment can look forward to L.M.I.'s, participating in Ex Rite Simple, Winter Indoc-trination training and finally, Christmas leave.

The principal event of 1983 will be the 135th Birthday of the Regiment, celebrated between 08-10 April 1983.

Regi Patriaeque Fidelis



100 YEARS

THE ROYAL CANADIAN DRAGOONS

1883-1983

ORIGIN AND EARLY HISTORY

Linked with the French period in Canadian history through the inclusion of personnel from the Queen's Own Canadian Hussars, the Royal Canadian Dragoons came into existence in 1883, when LCol J.F. Turnbull organized at the Citadel, in Quebec, a Permanent Force unit known as "A" Troop Cavalry School with the purpose of training, and performing routine duties as cavalry. The men recruited were from Ontario, Quebec and the Maritimes which gave this new unit a national cachet. Only two years after its organization the troop was called upon to take part in suppressing Louis Riel's second rebellion. This was the first time the RCD saw active duty. Their main responsibility was to secure resupply routes. Several months, after peace was regained in the North West, the Troop returned to the Citadel and did not see further action until 1900 when the newly renamed troop, embarked for South Africa.

SOUTH AFRICA

Taking part in the Canadian expedition the RCD became well known to the military world by their involvement in the Battle of Leliefontein. Here, after intense fighting and numerous acts of heroism, three of its members, namely Lt M.C. Cockburn, Lt R.E.W. Turner and Sgt E.J. Holland were each awarded the Victoria Cross (VC). In no other single battle in Canadian History has so many VC's been awarded.

The exceptional gallantry of all members of the unit was long praised by the Commander in Chief of the expedition and the British Government.

Returning from battle the Regiment would make its home in new quarters in St Jean, Quebec and would endure garrison life until August 1914, when Great Britain declared war on Germany.

THE GREAT WAR

Once again the Regiment would see action. This time in France and in Flanders as part of the 1st Canadian Division and in the Canadian Cavalry Brigade of the British Cavalry Corps. Ten new Battle Honours were to be emblazoned on the Guidon:

Festubert 1915
Somme 1917-18
Bazentin
St Quentin
Amiens
Cambrai 1917-18
Hindenburg Line
Brau re Voir
Pursuit to Mons
France and Flanders 1915-18

Returning from the Great War in May 1919, the RCD with Headquarters and B Squadron in Toronto and A Squadron in St Jean would carry out peace time routine until 1943.

SECOND WORLD WAR

Prior to the Regiment's involvement in the war, a great change occurred in modern day warfare. The Germans were introducing mechanized operations for the first time. As a result, the horse had, or was thought to have, no place on the battle field. The Regiment lost its mounts in the summer of 1940 and started the long and painful transition towards mechanization. For many members it was a blow. Those silent stables spoke to them eloquently of an era that had gone, perhaps forever.

Now, they faced new problems of adapting themselves to new equipment and forgetting skills they had spent a life-time acquiring. Most of them made the change successfully and in time became as attached to the vehicles as they had been to their horses.

The Regiment was to be equipped with the Staghound, a medium reconnaissance vehicle. After successful training in Camp Borden and in Fort Knox, U.S.A., the Regiment left for England. In 1943 the Dragoons served in Sicily and in 1944 Italy with the 1st Canadian Corps. In late 1944 the Regiment was attached to the 1st Canadian Division as its divisional reconnaissance regiment and moved to North West Europe, where in April 1945 the Dragoons liberated the town of Leeuwarden, Holland as part of its taskings.

During this devastating war the Regiment was awarded five more battle honours:

Liri Valley
Gothic Line
Lamone Crossing
Gronigen
North West Europe 1945

Returning to Aldershot the Regiment began preparing to be repatriated. The electric order to proceed to Southampton for embarkation was received on New Year's Day 1946. On January 5th 1946 the Dragoons on the great Liner Queen Elizabeth put out to sea for home. The Royal Canadian Dragoons would not see Europe again till 1957.

POST WAR

Since the Second World War, the Regiment has served a tour in Germany from 1957 to 1959, and has had independent squadrons in Korea, Cyprus, Egypt and Germany. During this period it acquired the new British main battle tank, the Centurion and would keep this impressive piece of equipment in its inventory until 1979 when replaced by the Leopard C-1.

The home for Dragoons from 1946 to 1970 was Gagetown, N.B. In 1970, the Regiment moved from Gagetown to Iserlohn, northern Germany. Shortly thereafter the unit moved south to its present location in Lahr as part of 4 CMBG. Since its arrival in Lahr, the Regiment has participated actively in all Brigade and community activities.

The Dragoons have always been good Ambassadors for both the Canadian Forces and Canada, by participating in international competitions and doing extremely well. Two such activities are the Canadian Army Trophy (CAT) which the Dragoons won in 1967 and 1977 competing against all NATO nations; and the Boeselager reconnaissance competition where our teams placed annually, the best being 2nd place in 1978.

Furthermore the RCD has participated annually in vigorous training including two to three major NATO exercises.

This year the Regiment is celebrating its 100th anniversary. The festivities will be copious so that young Dragoons may remember as a family, those valiant Canadian men who served and died for the glory of the Royal Canadian Dragoons and our nation.

The following Centennial activities will take place throughout Canada and Europe this year:

- The participation of C Sqn in the opening of the New Brunswick Legislature Feb '83;
- The official publication of the History of the Regiment. Dragoons 1883-1983, Ottawa March '83;

- Commemorative Plaque ceremonies

Iserlohn Germany	13 Apr 83
Leeuwarden, Holland	15 Apr 83
Bergen Hohne, Germany	17 Apr 83
Borden, Ontario	4 Jun 83
Werl, Germany	7 Jun 83
St Jean, Quebec	8 Jun 83
La Citadelle, Quebec	10 Jun 83
Petawawa, Ontario	6 Jul 83
Winnipeg, Manitoba	Jul 83

- Ceremony of the Freedom of the City of Fredericton -
18 Jun 1983;

- The parading of the Leliefontein Gun at Government
House - Ottawa 28/29 Oct 83;

- The Centennial Volksmarch in the hills of Lahr
29/30 Oct 83;

- The arrival of official Centennial guests in Lahr,
3 Nov 83;

- Open house and formal dinner for select citizens
of Lahr - 5 Nov 83;

- The Freedom of the City of Lahr - 6 Nov 83;

- Luncheon - Unit officers and City officials
Lahr - 6 Nov 83;

- Military Band Concert, Stadthalle of Lahr - 6 Nov 83;

- MCpl's Formal Dinner Lahr - 7 Nov 83;

- Officer's Mess Dinner Lahr - 8 Nov 83;

- Regt Fun Sports Meet Lahr - 9 Nov 83; and

- Sr NCO's Mess Dinner Lahr - 9 Nov 83.

RCAC MILITIA COMPETITION - WORTHINGTON TROPHY

By CWO K.H. Maybee

What is the Worthington Trophy all about? Who is responsible for it? What is its raison d'être? What is it based on etc., etc. Interested? Read on.

BACKGROUND

The Royal Canadian Armour Corps (RCAC) Militia Competition is an annual event sponsored by the Royal Canadian Armour Corps Association. The competition is carried out under the authority of the Director of Armour on behalf of the Association. SSO Armour FMC HQ and his staff are responsible to the Director for the detailed conduct of the competition.

AIM

The aim of the competition is to improve the effectiveness of our Canadian Militia Armoured Regiments.

SCOPE

The competition is based on the results of an evaluation of unit effectiveness in the following areas:

- a. Personnel recruiting and retention;
- b. Administration;
- c. Equipment, control and condition; and
- d. Tests on elementary training.

TESTING TEAM

SSO Armour appoints a testing team within each of the three regions, (Atlantic, Central and Pacific) from the appropriate affiliated armoured regiments, and from selected area and district HQ's (Armour RSS).

The testing team consists of four personnel of which one must be a major. The projects officer from FMC accompanies each of the test teams when they administer the first test in their region to ensure continuity in application and scoring.

CONDUCT OF TEST

The testing is conducted during the period 01 Apr to 31 May during the Regiment's normal parade times.

PARTICIPATION

Members of the Regt (GMT graduates up to and including Capt) are selected at random from the nominal roll on the day of the test. Essentially the tests consist of practical and written tests based strictly on the performance objectives found in the applicable Course Training Standards.

SELECTION OF WINNERS

The results are compiled by the projects officers, confirmed by SSO Armour and submitted to the Director of Armour. The Director informs the Corps Comdt who announces the winners at the annual RCAC Association Conference.

COMPETITION WINNERS 1982

Now that the 1982 RCAC Association Conference is history the Director of Armour is pleased to announce the winners of the 1982 Militia Competition.

NATIONAL

The Worthington Trophy. Awarded to the unit attaining the highest overall standard in the Corps. Won by the 8 CH (M).

The Howard Trophy. Awarded to the unit showing significant improvement in overall standard in the Corps from the previous year. Won by RCH.

EASTERN REGION

The Buchanan Trophy. Awarded to the unit attaining the highest overall standard in the Secteur de l'Est/Atlantic Area. Won by the 8 CH (M).

The Colonel Ross Memorial Trophy. Awarded to the runner-up in the Secteur de l'Est/Atlantic Area. Won by the PEIR.

CENTRAL AREA

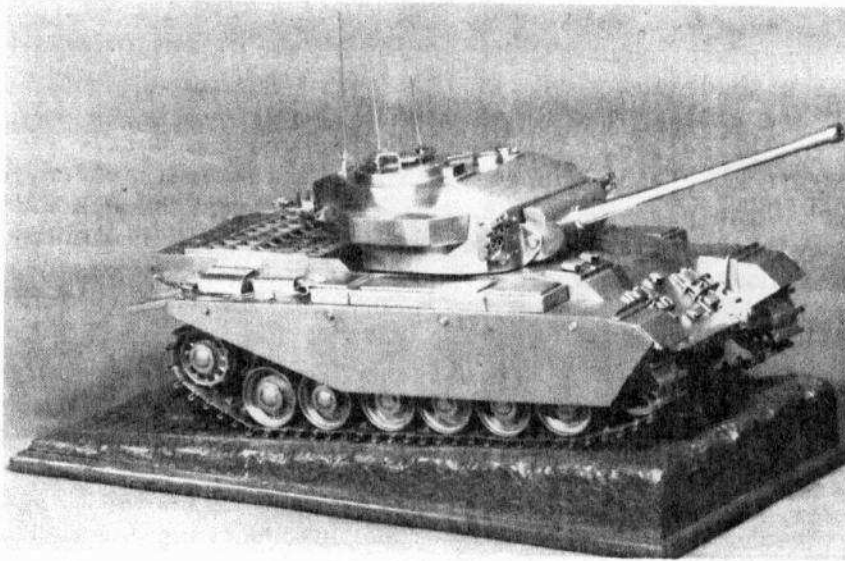
The Cumberland Trophy. Awarded to the unit attaining the highest overall standard in Central Area. Won by Wind R.

The Leonard Trophy. Awarded to the runner-up in the Central Area. Won by the GGHC.

WESTERN REGION

The Dunwoody Trophy. Awarded to the unit attaining the highest overall standard in the Prairie and Pacific Area. Won by the BCR.

The Murphy Trophy. Awarded to the runner-up in the Prairie and Pacific Areas. Won by FGH.



8 CH (PL) (M) WINS THE WORTHINGTON TROPHY

"THE WHIPPET"

by Captain H.G. Egner

Sir Edward Morris, Prime Minister of Newfoundland in 1918 must have been impressed with its speed and cross country mobility. One wonders what prompted Sir Morris to be present for the demonstration that sunny summer day.

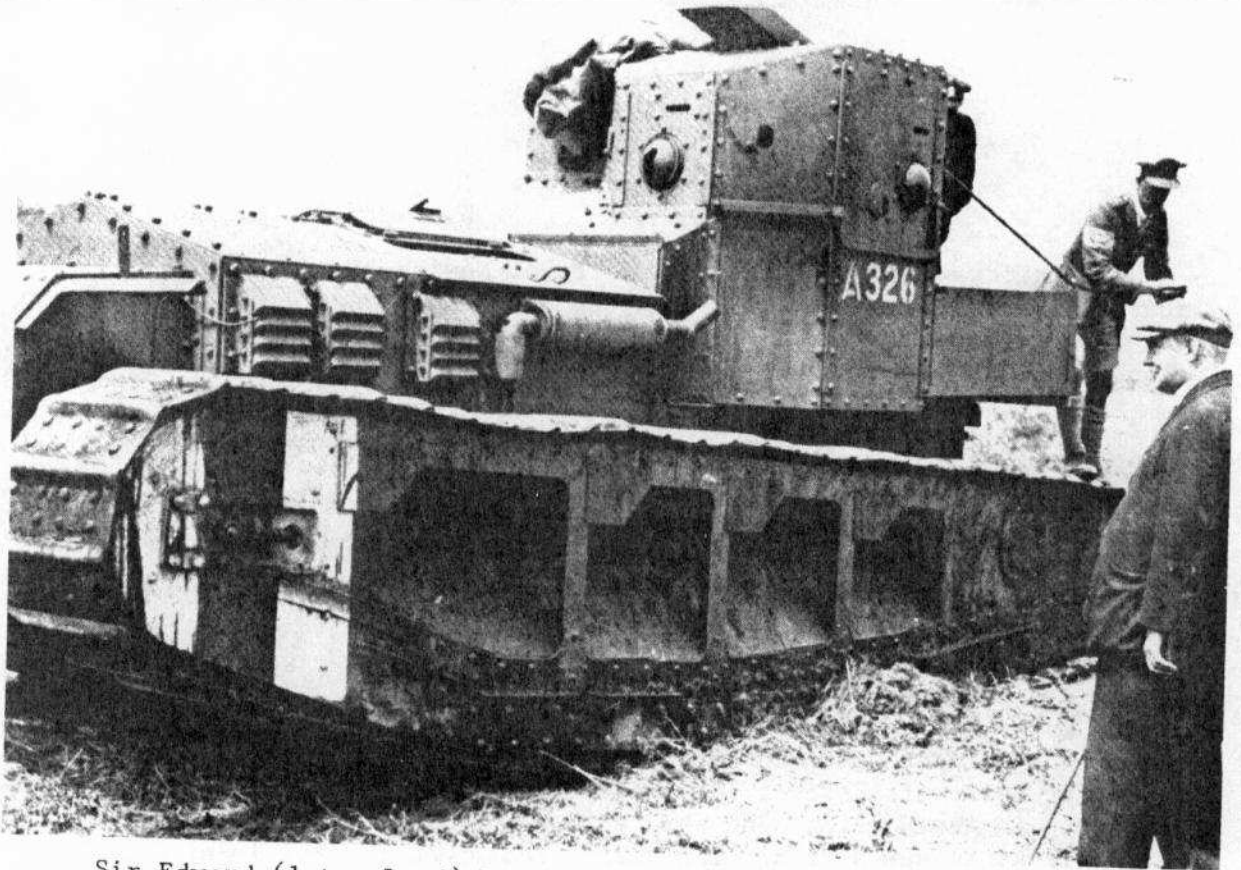
The Medium Mark A Tank - Whippet or Tritton Chaser, was the brain child of Colonel William Tritton, commander of the British Tank Arm. Colonel Tritton originated the concept of a "chaser" or cavalry tank after discussion with the crews who took part in the first tank action at Flers-Courcelette, September 23, 1916. The British Commander-in-Chief General Haig agreed that the concept of a cavalry tank was useful and agreed with Tritton's efforts to design a working model. By November 25, Tritton was given the go-ahead to complete a running prototype.

The Whippet was manufactured at Foster's Lincoln Works in the autumn of 1917 with delivery of the first vehicles to the Tank Corps in France in March 1918. The Whippet was the only one of the British Medium Tanks to see action. The most notable was the Battle of Amiens on August 8, 1918 when the Whippet was used as it was intended, as a "cavalry tank". The plan envisaged the classic breakthrough with exploitation by the cavalry divisions and the tanks in the enemy's rear. Unfortunately the combination of tank and cavalry was destined to failure from the start. The tanks gained attention through individual heroics.

Sixty-five years later found the Whippet as a part of the tank park at CFB Borden. With the passage of time the Whippet was looking in rough shape and was in danger of crumbling if action was not taken to restore her. Nine Class 'B' militiamen employed at RSS Detachment volunteered their time and labour to restore her.

The Whippet was moved from her spot by Leopard ARV and low-bed and secured inside the RSS Det AVGP hangar. The project required that the tank be stripped down to the bare hull, thoroughly cleaned and reassembled. The two Tylor 45 h.p. engines (used in London buses) were removed, steam cleaned and prepared for exhibition. At this time, welders are replacing sections of the tank that are beyond repair. A new wooden floor in the crew compartment will be constructed and the driver's controls remounted. A plexiglass door will be installed to permit viewers the opportunity to see the unique features of the crew compartment.

Once the Whippet is reassembled and repainted, it will be re-located inside the CFB Borden Museum hangar alongside the 'youngster' - the Centurion.



Sir Edward (later Lord) Morris, Prime Minister of Newfoundland inspecting a Medium Mark A 'Whippet' tank at the Tank Corps School, Merlimont, July 2, 1918.



Militiamen from RSS Det Borden observing the Whippet in the slung mode. The Leopard ARV hoisted the tank onto a commercial low bed for transportation to the AVGP hangar. Restoration of the Whippet should be completed by June '83.

TENTH ANNIVERSARY

BY CAPTAIN J.A. STUCKART

This edition of the Bulletin marks an important milestone in the production of the Corps' professional journal. It was ten years ago that the first edition, a collector's item now, first graced the Corps. Its original aim was to present a forum in which the Combat Arms School could pass on information of interest to the rest of the units. At that time, Armour Department was only one small part of the Combat Arms School.

Of interest to us all are some of the "pioneers" who began it all. Lieutenant-Colonel P.H.C. Carew, Chief Instructor, Combat Arms School provided us with the first foreword. What now follows is a who's who regarding the Bulletin and the School: (Commandant-Editor)

- Vol 1 - Major J.K. Dangerfield, OC Armoured Department
May 73 Editor - Captain D.W. Prosser
- Vol 2 - Major C.A. Conway, OC Armoured Department
Jan 74 Editor - ?
- Vol 3 - Lieutenant-Colonel C.A. Conway, OC Armoured Department
Jul 74 Editor - ?
- Vol 4 - Lieutenant-Colonel C.A. Conway, OC Armour Department
Jan 75 Editor - Captain J.L. Crosby
- Vol 5 - Lieutenant Colonel C.A. Conway, OC Armour Department
Sep 75 Editor - Captain P. Leentjes
- Vol 6 - Lieutenant Colonel C.A. Conway, OC Armour Department
Jun 76 Editor - Captain C.J.N. Sproule
- Vol 7 - Lieutenant-Colonel G.J. O'Connor, OC Armour Department
Jan 77 Editor - Captain N.A. Nickles
- Vol 8 - Lieutenant-Colonel G.J. O'Connor, OC Armour Department
Jul 77 Editor - Captain N.A. Nickles
- Vol 9 - Lieutenant-Colonel G.J. O'Connor, OC Armour Department
Jan 78 Editor - Captain J.R. Fournier
- Vol 10 -- Lieutenant-Colonel G.J. O'Connor, OC Armour Department
Jul 78 Editor - Captain D.L. Craig
- Vol 11 - Lieutenant-Colonel H.B.E. Lake, Commanding Officer, Armour School
Jan 79 Editor - Captain E.D. Borylo
- Vol 12 - Lieutenant-Colonel W.J. Coupland, Commanding Officer, Armour School
Jul 80 Editor - Captain E.D. Borylo

Vol 13 - Lieutenant-Colonel W.J. Coupland, Commanding Officer, Armour School
Jul 81 Editor - Captain P.A. Donnelly

Vol 14 - Lieutenant-Colonel R.N. Lawrence, Commandant Armour School
Apr 82 Editor - Captain J.A. Stuckart

Vol 15 - Lieutenant Colonel R.N. Lawrence, Commandant, Armour School
Dec 82 Editor - Captain J.A. Stuckart

Of course, we are all familiar with how the Combat Arms School developed into the Combat Training Centre and Armour Department into Armour School. The Bulletin changed as well. More material than ever currently is sent to us from our readers for presentation in the Bulletin. At times, it becomes a challenge to decide what to and what not to print. However, with a return to our semi-annual format, almost all that is submitted is printed albeit with minor "editorial" corrections.

For those who missed the first edition, myself included, we have printed two articles from it to show the passage of time since then. Or has it? You be the judge. The first decade is complete (for some, that may make them feel old). With your support, the Bulletin will continue as sound as ever during the second decade.

Perseverance.

ARMoured DEPARTMENT TODAY

By Captain D.W. Prosser

The recent reorganization of the Department produced a smooth functioning training establishment, without the trauma of growing pains which newly organized sub units frequently experience. After roughly one year of successful operation many of the people who were part of the restructuring will be posted; however, sufficient personnel are to remain and thus continuity of internal functioning and teaching will remain.

HEADQUARTERS

OC	- Maj J.K. Dangerfield (posted Jun 73 - UNMOGIP)
2IC	- Capt R.C. McDonald
DCWO	- CWO E.E. Eros
Trg Coord	- WO L.E. Wadsworth
Clerk	- Cpl J.E. Waterfield

GUNNERY WING

Wing Comd - Capt J.C. Gowans

Instructors - Capt G.R. MacLean (posted Aug 73, RCD)
Capt I.R. Monro (posted Aug 73, 8CH)
CWO C.W. Yeomans (posted Aug 73, RCD)
WO W.R. Barkwell (posted)
WO N.J. Desjardins (posted)
WO R.J. Marriott
WO E.B. Sampson (release Jun 73)
Sgt B.L. Darrah
Sgt K.W. McAllister (posted Aug 73)
Sgt E.R. Turple
Sgt R.B. Ward
Sgt M.G. Wheeler (posted Aug 73)
Sgt J. Wyatt (posted Aug 73 LdSH(RC))

Equipment Servicing Section - MCpl D.A. Ritchie
Cpl W.L. Edwards
Cpl C.B. Hankins
Cpl H.B. Morrison
Cpl P.M. Shute

DRIVING AND MAINTENANCE WING

Wing Comd - Capt J.D. Nolan (posted Aug 73)
Instructors - MWO F.E. Ainsworth (release Jun 73)
WO J.R. Pierce
WO J.B. Poole (posted Nov 73)
Sgt B.P. Barsby (posted Aug 73)
Sgt J.A.C. Demers (Infmn)
Sgt E.H. Ross
Sgt J.A.E. Saucier (posted Aug 73)
Sgt R.T. Sears (Artymn)
Sgt W.F. Southwood (posted Aug 73)

COMMUNICATIONS WING

Wing Comd - Capt J.L. Esson (posted Aug 73 LdSH (RC))
- Capt T.G. Joseph (CELE)
Sgt G.W. Allingham (Arty)
Sgt J.L. Avery (Rad Op)
Sgt L.B. Cunningham (Rad Op)
Sgt B.J. McAllister (Infmn)
Sgt F. Warnock

OFFICER/NCO TRAINING WING

Wing Comd	-	Capt C. Cathcart	
Instructors	-	Capt W.E. Cuthbertson	
		Capt L.J. Gwiazda	
		Capt D.W. Prosser	(posted Aug 73 LdSH(RC))
	MWO	R.F. Wallace	(posted Aug 73 LdSH(RC))
	WO	P.E. Cady	
	WO	R.S. Farquharson	(posted Aug 73)
	WO	A.V. Haley	
	WO	T.T. MacDougal	
	WO	J. Makuch	
	Sgt	J.E. Baldwin	
	Sgt	C.D. Barnes	
	Sgt	H.C. Sampson	
	Sgt	W.C. Georgeson	
	Sgt	W.G. Thompkins	(posted Aug 73)

Fortunately many of the forty-two instructors on staff are interchangeable, and can be employed in any of the teaching wings within the department. To maintain this flexibility, Standardization Training (mainly tactical) has been conducted periodically to ensure that a high degree of expertise and harmony is maintained among all of the instructors in teaching techniques and tactical concepts. This facilitates optimum employment of the department's manpower resources and allows instructors to be assigned to courses that have the greatest need at that time. As an example, a Sergeant or Warrant Officer instructor may find himself employed on a Pay Level 6A Course as a patrol instructor and assessor for a period of approximately three months, then a crew instructor on a DFSV Refresher or Land Environment Training for one month, then possibly a Course Warrant Officer for a Basic Officer Course or Militia Qualifying Course at either the Officer or NCO level, and finally a member of the instructional cadre of a D&M or Communications Course. This approximates one year of their three to five year tour at the CAS. Generally speaking, the officer instructors within the department parallel the NCO's employment as course officers or troop leaders for the various courses.

The various wings within the department over the past year will have conducted twenty-six courses ranging from those of a purely technical nature to leadership and career courses at the officer and NCO level. In its first year of operation the department expects to process 500 trainees. Although mainly a training agency, the department's scope is not entirely limited to that function. To date, it has also assisted in setting up weapon effect demonstrations and special assistance to militia units.

It also plays a key role in the provision of expertise to assist in the writing or revision of various armour-related Course Training Plans and training documents normally prepared by the Armoured Standards Staff at the CAS.

All things being equal, Armoured Department is anticipating a similar year to this one for the fall of 73 and 74 training period. However, this period will also mark the reintroduction of the Armoured Advanced Gunnery, and for the first time in four years, two serials of an Anglophone Pay Level 3 Course are to be conducted.

THE TRAINING OF A CREWMAN

The fall of 1973 saw the key members of Armoured units, staffs of NDHQ, FMC and the Combat Arms School gather in CFB Gagetown to form the Standards Writing Board on the Crewman Trade.

During the "Prepare for Action" when researching the previous reports, the following short story was found on top of a dead file.

THE NUT PICKERS

A family of baboons lived on a small island near the coast of Africa. The baboons lived near a tree which grew the most wonderful nuts. The family found that by climbing the tree, the nuts could be picked and these provided a very tasty and nourishing meal. As children were born into the family, they were taught by their parents to climb the tree and pick the nuts.

As time went by, it was discovered that the nuts from this wonderful tree could be planted. This resulted in more wonderful nut trees. The baboon population, nurtured by the wonderful nuts flourished and increased into a population explosion. More trees, more baboons, more baboons, more trees; until the island was covered with baboons and wonderful nut trees.

A steady diet of wonderful nuts may be very tasty and very nourishing, but a variety of food was desired. The baboon leaders established a trade agreement with a neighboring island of fruit growers in which wonderful nuts were exchanged for wonderful bananas.

Wishing to follow the best lines of technology in an advancing civilization, the baboons decided to establish a school for nut pickers. The school was to train young baboons in the skill of nut picking. The baboon educators selected a few expert nut pickers for instructors and had them train the young baboons in skills of climbing, balance, and nut removal. To this basic course, the nut inspectors felt that the young nut pickers should be able to discriminate ripe nuts from green nuts, and that the young baboons should be able to detect a fungus or disease which could be developing in the nut trees. A course in Island Fungi and the Care and Treatment of Nut Trees was added to the course.

The Nut Tree Planters felt that any nut picker could be appointed to the Nut Tree Propagation Program and insisted that the course include forestry and horticulture. This was added to the course.

Inter-Island bartering with fruit pickers, cotton pickers and other pickers often led to points in inter-island law. In order to protect the interests of the nut pickers, the baboon lawyers demanded that all nut pickers be cognizant of inter-island law and trade agreements. A block of instruction was added to the course to this effect.

Before a nut picker was allowed to pick nuts professionally, he must obtain his Nut Pickers Union Card. Local 716 tested the applicant; however, the test was designed to determine proficiency in the entire picking profession including fruit picking, cotton picking, spinach picking and sometimes nut picking. An intensive on-the-job-training was required in this area and certain formal picking principles had to be taught before the union test could be passed.

Well, the school got started and the baboons were eager and well motivated students. By the time the full extent of the course could be realized, some of the baboons flunked Horticulture or Island Law. Some had trouble understanding nut analysis and couldn't recognize certain fungi. A few nut pickers found in their OJT phase that fruit picking appealed more to them than did nut picking and moved to another island. Many flunked the union test. A few died of old age. The only part of the course that gave no great trouble was the nut picking phase.

A symposium was held by the island educators to determine what could be added to the course to increase the quality and quantity of nut pickers. A grizzled old veteran opened and concluded the session with a very simple statement, "NUTS".

The moral of this story is: LET NUT PICKERS PICK NUTS

For the Crewman Writing Board - "LET TANKERS SHOOT".

Editor's Note:

The following article is a reprint from THE CANADIAN MILITARY ENGINEER, Volume 13, December 1981. It is of vital concern for us "Black Hats" and is an excellent introductory article to the subject.

ISN'T THERE A NEED FOR A CANADIAN MINE PLOUGH?

by LCol J.D.W. Peters

Do the Soviets know something we don't? For a number of years now they have been equipping one out of every three of their tanks with mine ploughs. These are not special engineer tanks; they are normal everyday tanks organic to the armoured units of the Soviet Army. It appears the Russians have come to the conclusion that they don't want to wait for scarce engineer resources to be brought up every time a minefield is encountered - their armoured troops will attempt hasty crossing of minefields immediately! They can do this because not only are one of every three tanks equipped with mine ploughs but one out of 10 also has a mine roller set for recce purposes.

Until recently such an approach was quite contrary to the western view of the use of these devices. Our armour felt that these "agricultural implements" might "ruin the clean lines of our tanks". This type of thinking is being debunked as a result of data coming out of war games, operational research, and most important, mid-east actual battle experiences.

Just what is a mine plough? Simply, it's a device which combs the ground in front of the tanks tracks with a finger-like tynes to a depth of about 15 cms. The tynes lift the mines out of the soil where they are pushed aside by a mold board. A contour shoe keeps the mold board from digging into the soil more than a few centimeters. While permanently attached to the front of the tank, the plough is only lowered into its ploughing position when actually traversing a minefield. Each plough weighs about 400 kg and when retracted has little or no effect on mobility.

The usual tactical formation the WP Nations adopt when breaching is a platoon column with the plough tank leading. The remainder of the platoon will attempt to follow in the path of the lead tank spaced at 100 meter intervals. In most soil conditions the plough tank can move at six to eight km per hour. This will put a platoon column through a 500 m deep

minefield in five or so minutes. Like most devices used on the battlefield, ploughs have their strengths and weaknesses. Mine ploughs are not a panacea but they do considerably increase the protection against mines tanks can get while crossing a minefield. To appreciate what this means let's look at some figures. A single tank without a plough moving through a conventional, track-attack minefield with an average overall density of one mine per metre of front has about a 75% chance of being killed by a mine. If that same tank is equipped with a plough the picture suddenly becomes somewhat happier from the tank crew point of view (not the defender's!). Only about 19% of such tanks will be killed by mines. Not exactly a safe passage but better than a 75% probability of being killed!

Since not all tanks are equipped with ploughs, let's compare more the likely situation of platoon columns as opposed to individual tanks traversing the same minefield. A 13 tank company bulling through in three platoon columns unassisted by mine ploughs will suffer over 40% casualties or about six tanks. But the plough protected tank columns would lose only about 20% (two to three) of its tanks. Quite a different situation! Six mine losses in a tank company may cause "hesitation" whereas two out of 13 wouldn't.

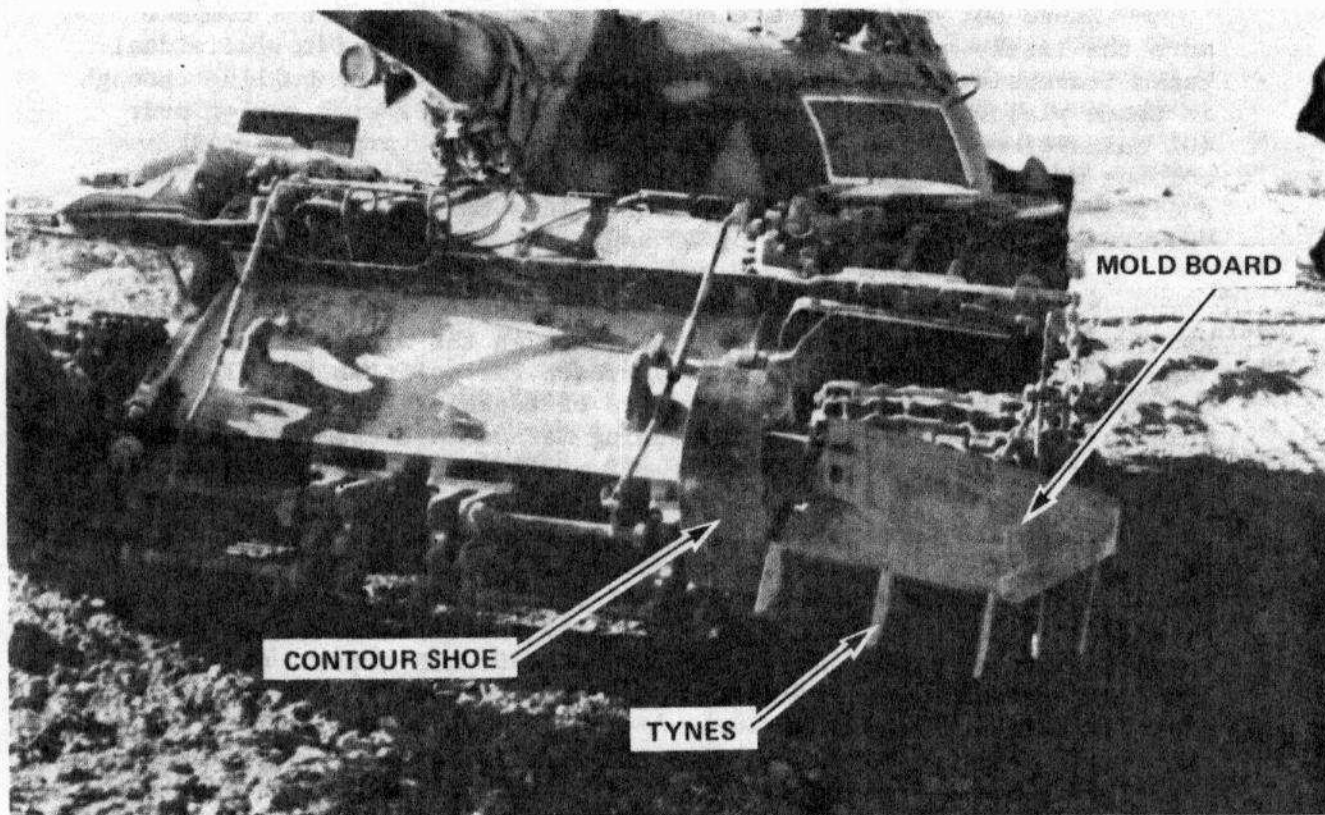
Please note however there are no guarantees, in fact the chances are very slim that all tanks will get through the minefield unharmed. Some are almost certain to be casualties. The point is that less will be casualties when significant numbers of tanks are equipped with ploughs. This is valid even when other breaching methods are examined as the following paragraph illustrates.

There are three other feasible techniques for breaching a minefield. The first involves the use of explosive charges (UK GIANT Viper, the US SNAKE or the proposed US SLUFAE system). Secondly there is the recently revived flail technique. Lastly, there is the silent hand breach (usually done at night under cover of smoke). All require considerable lead time, planning and equipment or manpower resources. Explosives will probably take between 15 minutes and a half hour to accomplish, are noisy, interrupt momentum and reduce surprise. Flails are also relatively noisy, generate a considerable visual signature, and are very slow - but sure. The latter takes many hours, is silent and can (if very lucky) surprise the enemy. However because they all use up scarce equipment and manpower resources, the number of breaches are limited and that's the major weakness of these approaches. This weakness is the mine plough's strength. Plough sets are relatively simple to operate, cheap, require no extra manpower and can be installed on a large number of tanks.

To oversimplify a bit, explosive, mechanical or hand breach methods are slow (response wise) and give a limited number of fairly safe minefield breaches; ploughs are fast and because they are high density issue

items, result in a large number of safe breaches.

In other words the choice is between the rapid traversing of mined obstacles with a risk of casualties from the mines or a delayed breach of the minefield with very few casualties from the mines themselves (but with all the hazards from direct fire that such a delay entails). I say that ploughs increase breaching time very little, thus decrease direct fire exposure time a lot while giving a fair degree of protection from mines. As an attacking commander, what course of action would you prefer?



TANK MINE PLOUGH

Editor's Note:

This article begins a series to follow in upcoming issues of the Bulletin. They came to the Editor via Captain N.A. Nickles who happens to be working at DMER. For we common folk, that translates into Directorate of Military Engineering Requirements.

A MINE CLEARING ROLLER SYSTEM FOR LEOPARD

By Captain N.A. Nickles, CD

Mines have always been a very unpleasant thought in a tanker's mind. Unfortunately not only will they not go away, but they are also becoming more lethal and plentiful. In our present role in Germany, it has been postulated that the regiment can expect to encounter mines at least twice a day. The traditional and present methods of dealing with mines involve delays for the use of engineer deliberate methods and also armour soldiers prodding with antennas !!!

The search for cheap and plentiful devices which can be used immediately and that are reasonably effective has led to the investigation of mine clearing rollers and ploughs. Although long a standard article in the Warsaw Pact inventories, these devices have only recently made an appearance in Western countries.

A set of Israeli rollers has been purchased along with a prototype adapter, specially designed for Leopard. The rollers are identical to those seen so often in the newsreels of Lebanon where they were used extensively even though considerable mines were not encountered. An engineering trial was conducted at LETE, Orleans, on the system in the fall of 1982 and field trials are underway in Gagetown in early 1983.

The system consists of a prototype adapter assembly and two roller assemblies. The adapter assembly mounts on the toe and glacis plates of the tank through the towing eyes. It is held tight to these plates by four bolts. Mounted on the assembly are four universal brackets and two pyrotechnique disconnect devices. The brackets accept the roller assemblies which can be jettisoned individually by a control inside the driver's compartment.

The roller assembly consists of a push arm with supporting cable, and a roller bank assembly. The roller bank is attached to the push arm by four chains and is in fact dragged along by the push arm in order that the weight of the rollers can detonate the mines. The system is completed by a chain and two "dog bones" slung between the push arms. The chain

will detonate any tilt rod mines that would normally pass under the tank.

ROLLER FACTS

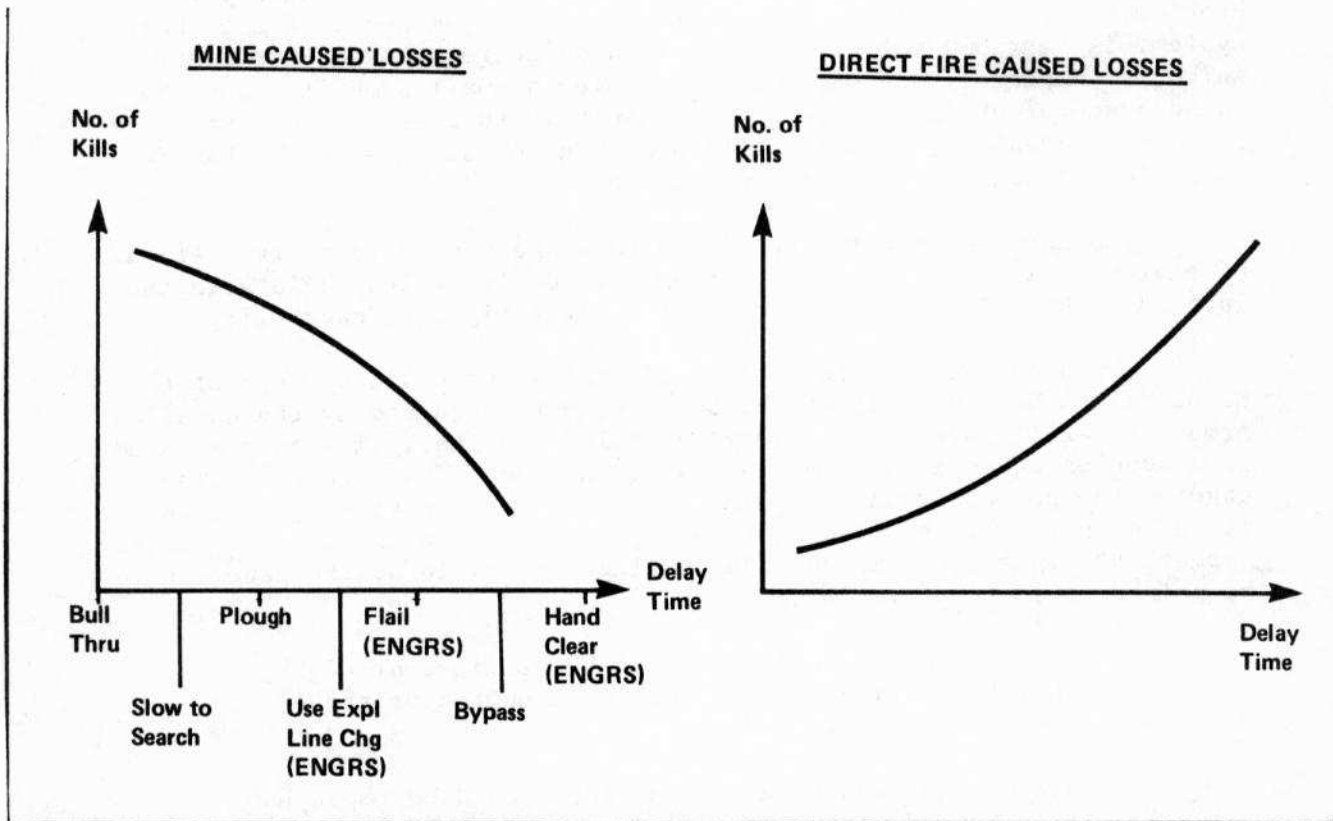
ITEM	APPROXIMATE VALUE
weight of adapter	1050 kg
weight of arm	650 kg
weight of roller bank	3100 kg
width of rolled path (each bank)	1150 mm
distance between centre of paths	2750 mm
distance centre forward road wheel to end of push arm	4400 mm

The roller system performs well when mounted on Leopard. Although acceleration is reduced slightly, top vehicle speed is unaffected. The safe tank turning radius is affected as is the step height capability of the tank. Mine problems, which can be easily corrected, have been encountered with the prototype adapter plate. The rollers themselves are reputed to withstand a number of M 15 mines (10 kg explosive) blasts. The rollers can be expected to detonate 97 of single impulse mines encountered; however, they can be defeated by double impulse fuzes. This deficiency shows the necessity of examining mine ploughs also. More details and crew reactions will be available after the field trials are completed.

Since the Leopard's mobility is so little affected by the roller system, it is intended to leave the rollers mounted on selected tanks in operations. If necessary, the system can be transported in two 5 ton trucks. Studies are already being undertaken to examine the doctrine necessary for the use of the rollers in the armour regiment. Computer simulations are presently being conducted to determine the best orders of march through a breached lane, but the real challenge to the Corps is how we are actually going to use them.



At the time of writing, negotiations are in progress to obtain both a British and Israeli mine plough for comparative trial in 1983. Thus both aspects of hasty breaching devices are being examined for use by the Corps. The forecast scale of issue is to be two roller systems per tank squadron and one plough per tank troop. Should the products prove satisfactory and acceptable to the Corps, initial issue could take place in late 1984.



"Increased time to breach results in Decreased losses to mines" BUT "Increased time to breach results in Increased losses to direct fire"

IFCS AND II

By Captain R.S. Richards

NFCS - Fully Exploited, which appeared in the Armour Bulletin Volume 13, listed the many and various deficiencies of the Night Fire Control System (NFCS) as it is presently utilized. It also proposed a modification to the equipment which would greatly enhance the capabilities of the NFCS. A decision on the proposed modification is still pending.

Although the modification proposed overcomes many of the technical problems involved with the NFCS, it still does not satisfy the problem of vulnerability. The camera, which is the heart of the whole system, is terribly vulnerable. It is a delicate piece of equipment which is completely exposed and vulnerable to small arms fire and the consequence of artillery fire. The result is that even if the system is working properly, it will still probably not survive on the battlefield long enough to be of any great use.

The purpose of this article is to propose an alternative method of employing an Image Intensification (II) device which would give the Integrated Fire Control System (IFCS) a night fighting capability.

The proposed modification would employ the basic concept of the Night Vision Goggles (II) AN/PVS 5A which were acquired by the Canadian Armed Forces in 1978. These goggles employ two small II scopes mounted in a housing which is worn on the face, one scope for each eye. The goggles themselves are an excellent piece of kit for viewing at night. If the gunner could simply put them on, look through the IFCS and engage targets at night the same as under daylight conditions, the benefits to be gained would be as follows:

- a. all daylight techniques could be utilized at night, thereby cutting down on the total number of techniques to learn;
- b. all of the advantages of the IFCS could be employed (i.e. speed, laser rangefinder, lead lock accuracy);
- c. there would be no need to converge a separate sighting system to the primary sight;
- d. there would be no externally mounted components which would be subject to damage;
- e. the sight offers X7/S14 magnification which would aid in target identification. At present the NFCS does not have any magnification;

- f. the power lead for the goggles already exists in the tank (normally used for the AN/VVS 501 when mounted on the commander's side);
- g. there is no optical matching required between the IFCS and AN/PVS 5A. The only requirement is that the IFCS eyepieces are set to "0" diopter and the end of the II tubes are approximately 3/4" away from the IFCS lenses;
- h. the maximum range of engagements employing the system would only be limited by visibility conditions;
- j. the system will actually work better under poorer ambient light levels than average II devices since the sight is gathering more light than would normally be admitted to the II tubes; and
- k. the cost per unit would be approximately \$6000.00.

The great beauty of this whole system is that only minor changes are required in order to make it work. The following are a list of modifications which would be required in order to make it operational:

- a. Housing. The present housing for the two II scopes on the goggles are designed to fit directly on the face or AFV helmet. A different housing would be required which would allow the system to be firmly attached to the IFCS. One method would be to design it to fit in the same manner as the IFCS brow pad is attached. Simply remove the brow pad and insert the II system.
- b. Power Source. The present power source for the goggles is provided by a battery. It is the same battery that powers the AN/VVS 501. It is assumed that the power cable which connects to the AN/VVS 501 while it is mounted in the vehicle would also be correctly suited for powering the AN/PVS 5A goggles, if they had a power connection. Therefore, if the goggles were modified for use in the Leopard tank, they should have a power connector capable of hooking into the vehicle batteries the same way as in the AN/VVS 501.
- c. Lighting Interference. At present, there are two rheostats which control the intensity of the light for the graticule pattern and laser echo lights. The rheostats, however, do not dim these lights to a point where they are essentially off. Although the graticule pattern is clearly visible, its intensity washes out the background and only the horizon can be distinguished. By comparison, when the light bulb was removed

(ie 'off'), the system worked very well. The graticule pattern was visible, but only when displayed against a very light background. Against a darker background, it was lost. Therefore, there is a requirement to have some graticule illumination, but not nearly as bright as is now in use. If the rheostats were increased in size, then the gunner could properly adjust the amount of illumination required to see the graticule pattern, but not wash out the II itself.

- d. Background Interference. Due to the fact that the tubes on the II goggles are smaller in diameter than the eye cups on the IFCS, interior turret light reflects off the lenses of the IFCS and into the II goggles which results (as with sub-para c) in the II being washed out. What is required is some sort of gasket/washer/seal which would fill the space between the II tubes and the eye cups of the IFCS, thereby eliminating the background interference.

So far, this article has dealt only with the Leopard, however each and every one of the arguments detailed above can be applied to the Cougar. The difficulties associated with and the performance of the RADNIS are common knowledge. In this case, however, since the No. 54 sight has only got a monocular, the cost of the system would be halved since you would require only one II tube. Three thousand dollars for a complete night fighting capability compares rather favourably with the cost of a RADNIS with its associated problems.

As detailed in the preceding paragraphs, there exists a simple, inexpensive solution to our night fighting problems. Although the NFCS is a giant leap from what was previously available, there are problems with it - above all, its survivability. The RADNIS speaks for itself. It is highly recommended that this proposal be "actively pursued".

WITH GENERAL RAD IN NORMANDY ..
SOME LESSONS FOR JUNIOR OFFICERS

by Capt M.S. Davies

AUTHOR'S NOTE: *The author wishes to thank BGEN (Ret'd) S.V. Radley-Walters and Major D.E. Green for their guidance and assistance in preparing this article.*

Last April the officers of the Royal Canadian Dragoons toured the battlefields of Normandy. The tour was led by our Corps Colonel Commandant, Brigadier-General S.V. Radley-Walters. General Rad fought here in the summer of 1944 while commanding a tank squadron of the Sherbrooke Fusiliers. Also acting as a guide was Colonel W. Mathews, a retired Regular Force Infantry Officer, who participated in this campaign as a company commander with the Canadian Scottish Regiment.

Both these officers were able to recall the tactical problems as they had experienced them; from the point of view of a young officer leading his troops under fire. The lessons which they related were not of the type usually found in any textbook or pam, however they seemed to be of particular value to officers working at Squadron level and below. Space and the general competence of the author precludes discussing all the many "tricks of the trade" these officers taught us, however I will touch on the following areas: Fighting in Built-Up Areas, The Use of Smoke and Navigation.

As we know, North-West Europe is even more urbanized today than it was at the time of the Second World War. A great deal of discussion therefore centres around making these urban areas into defensive strong points. Both General Rad and Colonel Mathews stressed that we must avoid actually fighting within the built up area wherever possible.

By making the routes through towns and cities impassable to vehicles the defender can create an effective obstacle to a high-speed mechanized advance. However, defensive positions should not be sited within the town nor around its perimeter. Instead, these positions should be established outside of town, preferably in defilade, covering the approaches to the town.

The reasons for staying out of the built-up area itself are twofold. First, the effect of artillery fire falling in a town is magnified by the destruction of buildings falling down on you and effective obscuration is caused by burning buildings and the dust from disintegrating masonry. Secondly, the rubble created by the shelling hampers the tanks' mobility, preventing their rapid redeployment or disengagement.

In World War II, advancing Canadian troops tried to avoid fighting through built-up areas whenever possible as it was always a slow operation and often very costly. Consider the operation required to clear Buron, a village near Caen and Carpiquet. General Radley-Walters attacked Buron and cleared the enemy trenches on the outskirts of town by approximately 10 A.M. While the Sherbrooke tanks bypassed the town and established themselves on the far side looking towards their objective of Caen, the Royal H Light Infantry followed on to clear the village. This clearing operation of Buron, a village of approximately two dozen houses, required nearly twelve hours!

When the situation absolutely required that he fight his tanks in built up areas General Rad had several drills which he employed in cooperation with the accompanying infantry. First, he would blow down any suspected OP and sniper positions along the intended route of advance. These were often church belfrys or in the top storey of any prominent and well constructed buildings. Then the infantry would move forward, clearing the buildings on both sides of the street by "mouse holing"; blowing down the adjoining walls between buildings. They often moved an entire block in this manner without ever reappearing on the street. To maintain communication every so often one of the infanteers would wave a sheet or blanket out a window to signal the extent of their progress to the armour.

To protect his tanks which sat idling for extended periods of time in the street, General Rad would lob a smoke round several hundred meters in front of him. This masked the tanks from the far end of the street, a favourite position of German anti-tank gun crews because it permitted them to fire at long range, then withdraw under cover and unscathed.

When smoke was needed, it was usually required on a "right now"! basis. General Rad had a very effective squadron SOP for smoke shoots, one which kept radio transmissions to a minimum. The tanks in his SHQ group usually travelled with a smoke round loaded. Whenever he saw a situation requiring smoke he would immediately engage. The others in SHQ would automatically begin to engage (unless General Rad specifically ordered otherwise) and the FOO would immediately call for smoke as well. If his round did not land close enough to the intended target, he would send corrections over the air.

General Rad mentioned that his SHQ group varied in number. As troops suffered casualties, he would take the remaining tanks into SHQ and fight it as a troop. When replacements arrived the troops would be reformed. General Rad was always careful to mix replacements with

experienced crewmen, believing this helped reduce unnecessary casualties caused by inexperience.

Finally General Rad offered some abject lessons on the need for accurate map reading by commanders at all levels. Navigation is not nearly so easy at night nor amidst exploding shells and the pervasive fog of battle. The planners of Operation "Totalize", the night advance by II Canadian Corps aimed at taking Falaise, recognized this and devised numerous elaborate navigational aids. Yet, three of the four columns of the leading Brigade lost their way. One column became so hopelessly snarled in the town of Rocancourt, a town not even within their boundaries, that they could not re-organize and reorient themselves until after first light the next morning.

A second example of faulty navigation on the day following produced somewhat more tragic results. The 28th Armoured Regiment (British Columbia Regiment) assuming the advance toward Falaise, mistook its objective and occupied the wrong hill, approximately 5 kilometers to the east of their intended objective. Here they were heavily engaged on an exposed forward slope by two Panzer Battalions which had been in hides on the reverse slope. Further, because they were not where they ought to have been, the hapless BCR were mistaken for enemy and bombed by our aircraft then shelled by our own artillery. By day's end they had lost 47 of their 55 tanks.

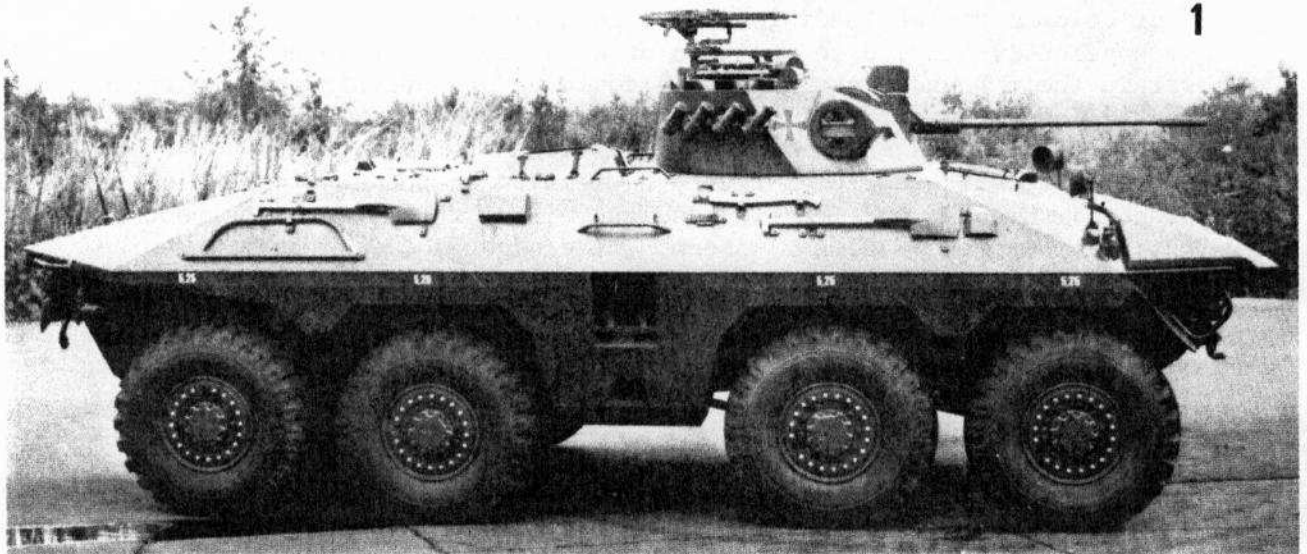
When we contemplate future conflicts, they may well occur on the same European battlefield, little changed from General Rad's day. These lessons which were gained at such great expense 38 years ago, lessons about fighting in built-up areas, the rapid employment of smoke and the crucial need for accurate map using skills, also seem unlikely to change.

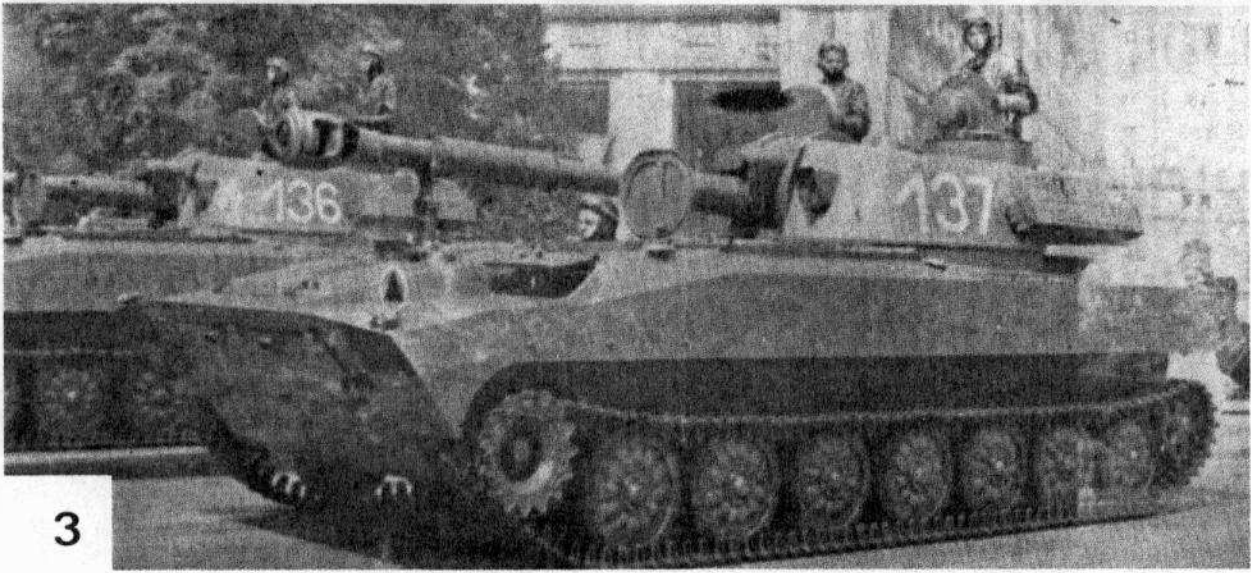
IDENTIFICATION des VEHICULES BLINDES

reponses à la page 70

AFV RECOGNITION TEST

answers on page 70





3



4



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8

INTRODUCTION BY SSO ARMD

The trial of the AVGP in CFE this year has made the paper that follows particularly relevant for all armour officers. The author, a student on a recent Toronto staff college course, prepared this paper to meet a course requirement and therefore it perhaps does not have the depth of a staff study prepared in a headquarters. However his assessment of the Cougar's possible use as a reconnaissance vehicle is intelligently stated and even now the COUGAR is being evaluated with the 4 CMBG reconnaissance squadron. A later issue of the Armour Bulletin will comment in full upon the actual trial.

An Australian author in considering Australia's defence prospects noted the following: "it is unlikely that Australia will, in the future, possess an indigenous capacity to produce the major hardware requirements of conventional units". Canadians, in particular armour officers, might do well to consider whether this statement is true also for Canada and whether, even after mobilization, we will not have to use the COUGAR for some considerable time. Many recent defence publications have also noted that the Americans are considering the 8-wheel version of the AVGP as the chassis for their light anti-tank weapons system. In view of the eight tank destroyer squadrons called for in our Combat Development model we may also have a need for a COUGAR variant in this role.

COUGAR - AN ASSESSMENT OF ITS FUTURE

IN THE ARMOUR BRANCH

BACKGROUND

The Cougar variant of Armoured Vehicle General Purpose (AVGP) was introduced into the Armour Branch in 1979 as a tank training vehicle. The controversial decision to purchase Cougar for use as a surrogate tank was presented as an affordable solution to the outstanding Branch shortcoming of the late 1970s - a lack of tanks. As Cougar has now been in service for two years, objective judgments have replaced emotional arguments as the basis for assessing the practicability of the tank trainer concept and the suitability of Cougar for this function. With the recent publication of Armour 81-85 (reference A), a Branch SITREP and short-term forecast, the collective opinion of the Branch is now available on wide distribution. Thus, it is an appropriate time to re-evaluate the future of Cougar in the Armour Branch.

AIM

The purpose of this paper is to determine the best plan for future employment of the Cougar vehicle in the Armour Branch.

ARMOUR ROLES AND TASKINGS

Before discussing the place of Cougar in the Branch, it is necessary to understand the context into which the vehicle must fit. The Armour Study (reference B), which was approved as doctrine by the Land Forces Combat Development Committee in 1980, established a Branch role and specific operational taskings; together, these comprise the essential criteria which employment of a major equipment item must satisfy. Cougar must assist the Branch in fulfilling its role and in meeting its taskings, and it should do so economically and efficiently:

- a. Role. The Branch role is to assist in maintaining the general purpose combat capability of the Land Force - general purpose being defined as the ability to perform the basic Branch functions in sustained operations on a high intensity battlefield with minimum re-training and/or limited re-equipping;
- b. Operational Taskings. The Branch operational taskings are defined as:
 - (1) maintenance of an Armoured Regiment in CFE;
 - (2) maintenance of an armoured squadron (+) for deployment with CAST;
 - (3) provision and maintenance of trained personnel for the reinforcement of CFE and CAST units;
 - (4) provision of armour input for collective and combined arms training in all formations;
 - (5) provision of sufficient training and support for armoured militia units; and
 - (6) maintenance of reconnaissance skills in armoured units.

REGULAR FORCE TANK TRAINER

In Armour 81-85, Cougar as a tank trainer is assessed against the criteria of role and taskings. The results are emphatically negative. Cougar-equipped units could not go to war as armoured regiments without complete re-equipping and extensive re-training. In addition, Cougar-equipped units cannot train personnel to maintain the regiment in CFE, are not suitable for CAST employment, cannot provide trained augmentees or reinforcements for CFE or CAST, and cannot contribute effectively to the conduct of realistic combined arms training. Cougar, in short, is a failure in the function for which it was intended.

Armour 81-85 recommends that the deficiencies of Cougar-equipped units be readdressed through the provision of a squadron of Leopards in each Cougar regiment at an early date as an interim measure, and the full conversion of Cougar regiments to MBT 85/86 in the longer term. The logical extension of this proposal is that Cougar should be phased out of its present employment. Armour 81-85, however, contemplates other plans. Specifically, it recognizes a need to upgrade the vehicle to enhance its limited tank training capabilities for the timeframe 1982-95 and refers to a two phase buy: Phase 1, the present purchase, may be increased, and Phase 2 will be implemented in the long term programme over the 1982-85 timeframe. These plans conflict with the assessment of Cougar's performance to date. In continuing times of limited funding, it would be unwise to proceed further with an expedient solution which does not contribute to meeting Branch aims. Undoubtedly, the 195 Cougars purchased in Phase 1 must be used, but not, it is hoped, as tank trainers. What role, then, could Cougar better fulfil as it is phased out of armoured regiments? Further, is a Phase 2 purchase necessary?

ALTERNATIVES FOR COUGAR

The criteria set out in the Armour Study conveniently lists the field of consideration. If Cougar were to be withdrawn from use in tank training in the Regular Force, acceptable alternatives would have to improve Branch effectiveness in its remaining tasks or in non-armour aspects of its role. There are only two options:

- a. Employ Cougar exclusively in militia units as a tank trainer; or
- b. Employ Cougar as a reconnaissance vehicle in Regular Force reconnaissance units.

(If the reconnaissance course were to be selected, then additional options of employing Cougar in militia units in the reconnaissance role or in both the reconnaissance and armour roles would apply. These hypothetical options will not receive specific consideration in this paper).

Militia Tank Trainer. The militia alternative is, in fact, an existing Cougar function. However, the introduction of Phase 1 Cougars into militia armoured regiments only commenced in 1981 and the results are still unclear. It is therefore difficult to confidently predict the specific impacts of conversion of the full Cougar fleet to the militia tasking in the long term. The following assessment is offered:

- a. In a critical analysis the deficiencies of Cougar as a tank trainer in the Regular Force would also apply, to some degree at least, in the militia. In a less critical view, these deficiencies could be de-emphasized. A tank trainer would be more acceptable in the militia than in the Regular Force if only for the reason that mobilization planning has yet to assign a specific role to the militia on either an individual augmentation or formed-unit basis; at present, the militia is simply further removed from the possibility of combat. Although training on Cougar would not prepare a reservist to fill a Regular Force position, tactical and trades training on AVGP would certainly be a step in the right direction;
- b. It is anticipated that the arrival of Phase 1 Cougars will greatly stimulate militia training and, in turn, militia strengths and effectiveness. This stimulation would likely be more significant if the present selective distribution of limited numbers - four Cougars in each of 11 of 18 militia armoured units - were expanded;
- c. Current militia problems of retention and limited training time clash with the introduction of a relatively sophisticated equipment into the reserve environment. Only time will tell if Cougar can provide an impetus to reverse these trends and create the stability necessary to enable part-time soldiers to master full-time hardware. If the challenge should prove to be too great, additional Cougars for the militia would be a wasted resource;
- d. Finally, it should be recognized that transferring all Cougars to the militia would not free the Regular Force of obligations to the vehicle. The training system would

have to continue to maintain expertise and facilities for Cougar trades and maintenance training to permit the periodic conversion of RSS instructors and to support the area and national level courses which would remain as Regular Force responsibilities. Still, as support to the militia is a Branch tasking, this commitment of resources to a non-Regular Force equipment would have to be accepted.

Reconnaissance. The concept of Cougar as a reconnaissance vehicle is not a new one. When the purchase of the AVGP was first announced, many considered that, in spite of the pressing need for tanks, it would be impractical to misuse what was certainly an adequate wheeled reconnaissance vehicle by committing it to a tank expedient concept for which its suitability was questionable. Surprisingly, now that Armour 81-85 has recognized that the armour aspects of Branch role and taskings cannot be achieved with Cougar, there remains a reluctance to formally evaluate the potential of this vehicle for satisfying Branch reconnaissance taskings. The existing tracked reconnaissance vehicle, Lynx, is due to be retired in 1985, and Armour 81-85 notes that the Branch is addressing the Lynx replacement as a high priority. It would be logical to consider Cougar as a possible replacement:

- a. Cougar should be phased out of Regular Force units as Leopard or MBT 85/86 is phased in. If Cougar were to be converted to the reconnaissance role, thereby eliminating a costly evaluation and acquisition programme for a new vehicle, the Branch would add the appealing argument of economy to its case for more tanks. With existing Phase 1 Cougars, reconnaissance squadrons in CFE and Canada could be fully re-equipped and a considerable balance of vehicles would remain for augmentation of militia holdings;
- b. There would be other economies as well. By limiting the types of armoured fighting vehicles in the Branch inventory to two - a tank and a reconnaissance vehicle - the overhead of facilities, staff and equipment in the training system would be minimized. The requirement to provide training support to militia Cougar units in either the armour or reconnaissance roles would also be met;

- c. The outstanding argument against replacing Lynx with Cougar focuses on the suitability of AVGP for the reconnaissance task. Ideally, the Branch should establish an Operational Equipment Requirement (OER) for a new reconnaissance vehicle, based solely on doctrine, and should approve only the vehicle which best meets the requirement.* Unfortunately, ideals in peacetime armies are not always obtainable. In this case, the OER itself would have to be a compromise to balance the traditionally conflicting reconnaissance capabilities of mobility, stealth, protection and firepower. The perfect, all-purpose reconnaissance vehicle may not exist: at worst, Cougar would be a significant improvement over recent types such as Ferret, M113 and Lynx; at best, it might prove to be a very satisfactory solution in most environments.

* NOTE: *Contrary to this statement, the Branch does have a Statement of Operational Requirement (SOR) for a new reconnaissance vehicle - SSO Armd.*

CONCLUSION

The verdict on Cougar as a tank trainer is pointedly expressed in Armour 81-85; the vehicle is counter-productive to Branch aims. This paper has argued that Cougar should be withdrawn from its present role as quickly as it can be replaced by a tank. It has also established that present Cougar holdings could be effectively utilized in either the militia support or reconnaissance aspects of Branch tasking. Neither alternative supports a need for a Phase 2 buy.

The better alternative for Cougar's future is the one which would most improve the ability of the Armour Branch to perform its role. Although acceptable, the militia option would have only an indirect influence on the contribution of the Branch towards maintaining a Land Force general purpose combat capability. In the reconnaissance function, Cougar would contribute significantly. In addition, the arguments of economy and efficiency favour the reconnaissance option. If the Branch could combine its arguments for tanks to replace Cougar with a plan to substitute Cougar for Lynx, it would have a long term programme with potential to enhance its capabilities in all areas: armoured units would have tanks, reconnaissance units an armoured car, and militia units an increased holding of a vehicle for training in either role. Simplicity is the key: the Branch would have two vehicles and a real capability to go to war as well as to train for war.

RECOMMENDATION

It is therefore recommended that:

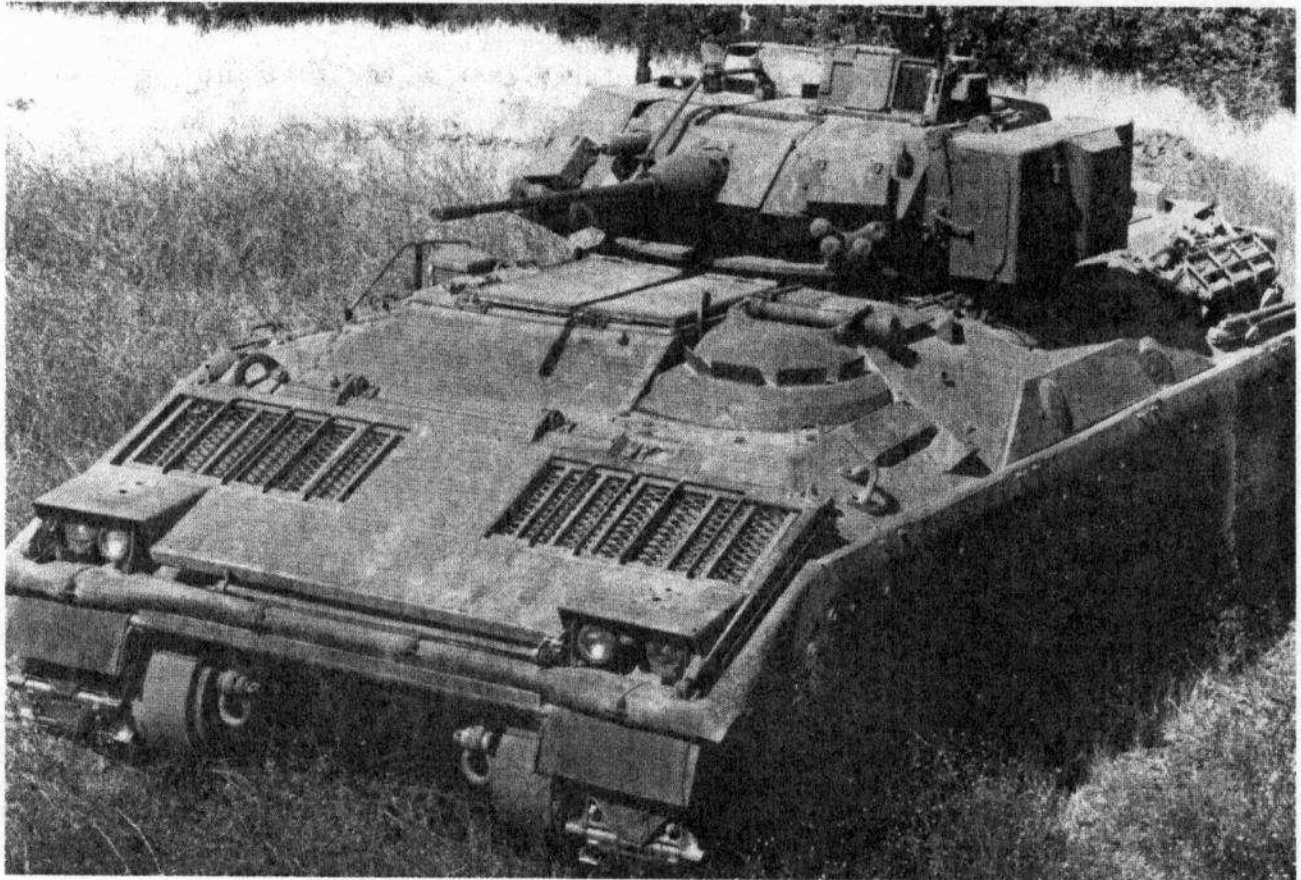
- a. Cougar be withdrawn from Regular Force armoured

units as additional tanks are received;

- b. Cougar be considered a leading contender to replace Lynx as the reconnaissance vehicle in the 1985 time-frame; and
- c. the requirement for additional Cougars beyond the Phase 1 purchase be re-evaluated.

References: A. FMC 1901-104 (SS Armour) 18 September 1981

B. NDHQ 1901-104 (D Armd) 12 March 1979



BRADLEY (M-2)

EYES AND EARS

By Lieutenant-Colonel G.F. Erving, CD

Since man became engaged in military campaigning, one of the perennial problems facing commanders has been making the right tactical decision in the face of little, incomplete or conflicting information: the fog of war. In past wars, time, space and technology have enabled us to recover from the mistakes made as a result of poor information. In the next, we will not have this luxury. It will be precluded by speed, violence and the lack of a defineable front. It therefore becomes mandatory that formation commanders have eyes and ears all around to inform, warn and, if necessary, to protect them. These eyes and ears are the armoured recce.

In past, present and proposed ORBAT's provision has been, and continues to be made for armoured reconnaissance forces, be it the recce squadron in the Brigade Group or the recce regiments at Divisional and Corps level. Obviously a piece of sound military thinking. However, it is at this point that such sound thinking appears to stop. On paper the organization is provided for. In fact, that is, in training it is not.

In discussing the effectiveness of any military organization, one must look at its equipment and its men. The current environment in Canada precludes discussion of equipment, and since the man is the key to an effective organization, it is him and his training I propose to discuss.

In describing reconnaissance units, Sir Brian Horrocks¹ writes:

"..... Normally, armoured cars bear a role out of all proportion to their size, as they are the eyes and ears of the Corps Commander. Advancing usually on a wide front, they constantly report back by wireless to their Liaison Officer at Tactical Corps HQ, and to be successful three things are required:

Firstly, the man in charge of the leading scout car should be very alert and intelligent.

Secondly, an Armoured Car Squadron must be prepared to fight for their information; in other words, exert pressure, so that the enemy is forced to disclose his location.

Thirdly, and probably the most important of all, their wireless communications must never break down".

Sir Brian then proceeds to describe the conduct of recce operations

1. Corps Commander, LGen Sir Brian Horrocks with Eversley Belfield and MGen H. Essame. Mathuen Paperbacks Ltd., London 1979. pp 64-67.

by the Household Cavalry and the Inns of Court in the advance to Brussels and Antwerp in August and September of 1944.

His description of recce operations still rings true today. To meet the requirements of accuracy and timeliness in the information he provides, the recce soldier must range far from the protective umbrella of his parent formation. Indeed, his own organization is often so dispersed that they too are unable to offer him any immediate direct support. Add to this today's technological advances in ECM and he now faces the problem of not only getting the information but also that of getting it back to the formation commander in time to be of use.

The key to successful recce operations is the junior leader, whether he be the Troop Leader or Crew Commander for he is the one who must go get the information. He must be able to understand the urgency with which he is required to act, and he must be able to react to it. He must be resourceful and possess initiative for more often than not his success or failure, and indeed his life and those of his subordinates, will depend on him and him alone. He must possess the tenacity to dig for information and to hang on and dig for more regardless of the circumstances. He must be a leader. He must be well trained and disciplined.

It is not my intent to insult the armoured side of the Corps. I am a "Black-Hat" too. However, it is recce's job to serve as the eyes and ears of the Corps and of the formations for which we work, and it is my intent to be as effective in this job as is possible. Nevertheless, I must disagree with statements to the effect that tankers and recce soldiers are interchangeable. I base this, not on my own experience for I have never worked with tanks; but on the observations of long-serving soldiers and history. The nature of their respective operations is completely different and therefore requires a different mentality and different training.

Unlike a tank troop which operates under the comparatively tight control of the Troop Leader and which remains intact in battle, the recce troop is often split up, one patrol operation as much as five kilometers from another. Coupled with the existence of ECM and his own distance from his SHQ and that of the parent formation, the scout troop leader is faced with problems of command and control and the passage of information which do not face the tank troop leader.

The role and tasks of tankers are relatively simple when compared with that of recce. Armour's role is basically to fight, whether in support of others or with others in support of them. Recce, on the other hand, can be given a myriad of tasks, often simultaneously: the reconnaissance and surveillance of enemy, ground, routes, obstacles, landing zones, etc. rear area security and escort tasks each with their variety of problems and solutions; and, if necessary, engaging the enemy

to prevent his penetration of our flanks, rear areas and headquarters. Recce may be tasked to do this within their own resources or they may be reinforced by others, in which case they require a detailed working knowledge of other arms and services. Recce soldiers must not only possess the skills required of their own occupation, they also require those of the infanteer, engineer, gunner, and signaller to name a few. They must be a jack of all trades, but unlike the cliché, a master of them also.

The key, in a militia unit, to achieving these skills is the junior officer. It is he who, under the direction of his superiors, prepares the detailed training content and conducts the training. It is he who initially assesses his subordinates for appointments and promotions. It is he who trains the "pointed end of the stick". He, therefore, must receive the best training possible, training that he will use in training others. Without this we will be unable to develop and maintain the high standard of skill required of us.

The officer training programs now in effect in the militia are generally adequate. However, if the RESO and MITCP programs were split to allow the training of both armoured and recce officers and if the recce portion of that training trained the junior officer, not only in field operations, but also as a trainer, then we would be in a much better position to meet our training objectives and to do our job.

In this time of human and material restrictions on the army, it is understandable that it must be highly selective in its training priorities. Given the drought that tank training just barely managed to survive, the present push to train tankers must certainly be agreed with. Nevertheless, the comparatively few resources required to train junior reconnaissance officers must surely exist somewhere in the system. Without eyes and ears, the brain is blind. Without the brain, the mailed fist cannot be swung in the right direction.

THE RECONNAISSANCE OFFICER AND NCO

The military knowledge which may be of use to an officer or NCO on reconnaissance has no limit. The wider the knowledge of the informant the more useful the information for the final value of reconnaissance depends very much on the ability of junior officers and patrol commanders to discern the facts or deductions which will be of use to their superiors

The officer or NCO who has attained only to the standard known as a good regimental officer or NCO is insufficiently equipped for reconnaissance work. What is of value is a knowledge in some degree of the Art of War.

HENDERSON - THE ART OF RECONNAISSANCE (1904).

REVIEWING REGIMENTAL ROOTS

BY CAPTAIN D.B.J. SNYDER

If soldiers fight 'more for their family and regiment than for their country and philosophic concepts', then it is paramount that unit customs have an important place in the training of an active regiment. Because time is finite, our task infinite, traditions, customs and mores of the corps and regiment are often categorized, "could do - if we have time".

Militia units need published traditions; we must have these paper treasures, to enrich the reserve soldier's education. Regimental self knowledge is mandatory.

As the Adjutant of the Regiment (a pusher of pens, a searcher for paperclips and manipulator of the copytron) it has been my growing belief that what officer candidates, junior officers and green soldiers need is an injection of maturity, competence and perspective. Appreciating that this miracle "needle" is not available through the Medical Officer perhaps a shot of tradition administered regularly will perform the same function. With these thoughts in mind, I went about packaging BCD Precis 101 and BCD Precis 102.

This year our regiment, The British Columbia Dragoons, celebrates its seventy-fifth anniversary. Although eastern regiments with revolutionary war roots might not be moved to awe (The Royal Canadian Dragoons are just twenty-five years older) we, the first cavalry regiment in British Columbia, feel good about being a young seventy-five years. What better gift to last the regiment than pamphlets, one for general use by the regiment and association, the other for the junior officer (bless their illfitting combats).

The regiment package for general use consists of:

- a. a brief background of the regimental system;
- b. a dozen page summary of British Columbia Dragoons history; and
- c. a regimental traditions section, where quirks particular to our unit are explained, captioned and rationalized.

Injected among these eccentricities are a number of:

- d. questions - for example:
 - (1) What is the difference between a hussar, lancer, and dragoon?

(2) Why do tankers wear a black beret?

(3) Why does our Piper wear McGregor Tartan?

The questions, thirty in all, are answered in appendix of the precis - functioning as an educational stimulus and learning aid. This 'pam' has a reading list for reserve soldiers - recommended reading with an armoured slope - Fraser's ALWAYS A STRATHCONA, Fuller's DECISIVE BATTLES Liddell Harts' STRAPEDY, Masters' BUGLES AND THE TIGER, Mowat's THE REGIMENT, Roy's SINEWS OF STEEL, Jarymowycz's RV 81, and Snyder's DRUNKEN DRAGON

The other precis - the Junior Reserve Officer - is terms of reference that an officer new to the militia organization, corps or unit should tattoo into his long term memory. This collection consists of basic officer rules of the road (about forty percent was liberated from the CAS Precis 101 ("The Junior Armour Officer")). A mini history of cavalry and armour, a history of RCAC, a brief BCD history comprise the introduction. The gist of the precis includes chapters on leadership, discipline, regimental organization, mess conduct and administration. The future of armour and NATO's European role are discussed in the conclusion. An appendix includes a reading list for junior officers, 'spec' sheets on the Cougar, world armour silhouettes and a regimental history quiz.

The advantage of having these pams is multifold. Not only do they fill a necessary education gap but also BCD Precis 101 can be sold to serving and former members. Debate over perceived errors or omissions should be stimulating. In the Okanagan Valley we need all the military interest we can create.

The primary purpose is to give green soldiers in our regiment, (Nous sommes toujours verts ces jours n'est-ce pas) a sense of who we are, a depth, which is more often than not lacking, and an understanding of our roots. Traditions in living history assist us in not making foolish blunders. Tradition forges strength and resolution for the future.

Because our unit is separated from other units, friendly rivalry vis-a-vis inter unit competition happens at best once a year. Because our unit lacks seasoned soldiers, old Majors or starched moustached SSMs' we need a regimental watchdog. Because the advantages of full time soldiering are not available to reserve units, the need for practical solutions to esprit de corps is on going. Regimental traditions must be etched in every soldier's soul. If we know who and what we are, we can only become better soldiers for it.

MERIT BOARD NO 20

By Lieutenant-Colonel W.B. Fox, CD

Some time about last June, I was hanging around the hallway of FMC HQ shooting the breeze with a couple of other Armoured officers, which probably confirms the suspicions you held about FMC HQ staff. As frequently happens, the subject of promotion, and particularly promotion boards, came up. I said then that I had heard a lot about the board process and would really like the opportunity to sit on one. Just as if someone up there had heard me, about three days later, in came a message tentatively selecting me to sit on the Armour Captain to Major Merit Board for 1982. Not only was I selected for a board, but it was a board on a classification in which I had more than a passing interest. I immediately indicated that I was available and in due course was a member of Merit Board No 20. As I thought about the board prior to its meeting, the idea occurred to me that it might be worthwhile to write an article for Armour Bulletin to tell other officers in the Corps how the board process works and my impressions of it. The idea seemed particularly a propos because this was only the second year in which the board was composed primarily of Armour officers and obviously a lot of officers were not aware that the composition of the Combat Arms Captain to Major boards had been changed. While I do not expect that I am going to tell you anything new, a review of what we did and my impressions might shed some light on the mysterious methods of promotion boards.

Some time after indicating that I was available, I received from NDHQ/DPCAO a convening order which stated that I was to go to Ottawa for the first week of November to sit with three other Armour Officers and a pilot "to determine the annual merit list of officers eligible for promotion to Majorin the classification of ARMD". Along with the convening order I received a booklet produced by ADM Per staff entitled "Officers Merit Board Guidance Manual", which contained some basic information on how the board works, the appropriate CFAOs, and some detail on how PERS have evolved and should be read.

As the time of the board drew closer I did quite a bit of thinking about it. I read the Guidance Manual a couple of times and checked the regulations on promotions and on terms of service. I dug out the Officers List and looked at the names of Captains in the Corps. I was shocked to realize that I could only put faces to about half the names and of those I recognized, there were a large number that I did not know. At least under those circumstances I felt I could be reasonably objective. I asked myself whether I had any favourites that I would really want to push. A number of officers on the list were old friends and contemporaries and I asked myself whether I would be able to help them. Of course I realized that my ability to push favourites or help old friends would

depend on the contents of their files. Finally, I also talked to other officers about the process and about the needs of the Corps so that I would be reasonably up-to-speed when the board started. While some of what I did was not of great value in any event, I arrived at the board feeling reasonably sure that I knew what to expect and that I would be able to contribute.

The first step in the board process was a briefing held by DGPCO and DPCAO for the members of our board and of the three or four other boards that were sitting at the same time. The briefing reviewed the board procedures and gave us guidelines on how to look at a number of factors involved. We were to look at the files of each officer who would be in the promotion zone in 1983 and score each officer on the basis of a maximum of eight points for his performance as recorded in his PERs and course reports and a maximum of two points for his potential. Performance was to be rated in whole points; potential in half-points. If there was a variation of more than two whole points in total score on a particular file among the board members, the scoring for that file was to be discussed and reconciled to bring the scoring within the two point variation. Assessment of performance was reasonably straightforward, but potential scoring was slightly more difficult. Potential was to be assessed on the basis of age, seniority, service qualifications, experience, linguistic ability, and fitness with no specific points assigned to any particular category, the potential score thus being based on the judgement of the scorer. After reviewing and scoring each file, we were to rescore a number of files equal to two to three times the number of expected promotions in the classification. The same procedure was to be followed in the rescore as in the original scoring with the exception that a variation of greater than one full point among the board members was to be discussed and reconciled. At the completion of the rescore we would have our merit list. The only further direction was that in the case of a tie score between two or more officers on the final list, the tie would be broken by first, seniority in the present rank; second, seniority in the previous rank; and lastly, by date of birth, with the benefit going to the older individual. We were also told that the career managers had selected 15 representative files which we would score as a trial run to ensure that we understood the process and to allow us to eliminate any gross inconsistencies in our individual scoring. On completion of this initial briefing we were released to go to our board room and start work.

Once in the board room, the Armour Officers' career manager gave us a quick briefing on the Corps situation: the number of vacancies, the number of squadron commander positions he had to fill, and what the ideal list we would produce should provide from his point of view. We then commenced the trial run of 15 files which the career manager had selected as representative of the types of problems we would encounter. It was an

excellent cross section which enabled us to discuss the problems and talk about the **scoring**. It also gave us an opportunity to look at and discuss the various evaluation reports in use from the Canadian Army Confidential Report through to the current PER as well as the changes in scope and assessment in CLFCSC and Squadron Commanders' courses. At the end of the trial run and discussion we were pretty well all on net.

Then we started the real board and followed the procedures outlined above exactly. During each session each of us started with a stack of files in front of us, which we scored. We recorded our scores on a form produced for the purpose and passed the file to the next member. We also made note of any points which occurred to us on review of the file which might be of value to the career manager. When we had each seen all of the files for that session, we went through the list and each reported the scores, both for performance and for potential, that we had given each individual. At that time we reconciled any scores outside the two point variation. While I didn't keep track, I would say that such reconciliation was necessary in less than five percent of the cases. The career manager who was the board secretary, recorded the scores for compilation of the list and then sat down with us as we reviewed the notes we had made. These notes referred primarily to recommendations for officers to attend Kingston or the Squadron Commanders course and occasionally recommendations for posting and employment. I am happy to report that the career manager was well ahead of us and in 99 percent of cases we raised he had already programmed the recommendations we made.

Each file we saw contained a standard package. On the left side was a picture of the individual, a personal history sheet showing his employment and courses and his CF 490. On the right side were all of his PERs and underneath, all of his course reports. The time we spent on each file was dependant on its contents. For example, in the case of a young Captain who had just entered the zone, who had not attended Kingston or the Squadron Commander's course and who was on his first ERE tour, unless there was something which stood out in his file, one could review and score it quite quickly. In the case of an older officer, who had all the courses, obviously the scoring took longer. In general though, our pacing was about the same so that the board did not have to wait for one particularly slow member.

It was during this stage of course that we were earning our pay. One of the advantages for the Corps is that we have such a large number of very talented and capable people. That fact does not make it easy for members of promotion boards. The review of files as objectively as possible is a soul-searching and agonizing experience. The assigning of points for performance is, as we were told, fairly straightforward and based exclusively on the PERs and course reports. The potential rating is considerably more difficult as you balance age, experience, qualifications, language profile, and "gut feel".

My review of each file followed this rough sequence: a scan of the scores on the last PER and quick reading of the narrative, reviewing officer's and the next senior officer's comments; scan of the scores and the reviewing and next senior officer's comments on PERs for the previous two to four years; a scan of the scores for years before that and reading where something stood out; and a review where applicable, of the Kingston and Squadron Commander's course assessments. I always reviewed the PERs from the officer's last term at a Regiment since the ability to perform well in association with troops seems to me to be vital. I then recorded the rating for performance. Next I looked at the personal history sheet and CF 490 and recorded my rating on the officer's potential and noted any recommendations for the career manager. As you look at each file a pattern emerges which gives you a sense of timing for the individual: now; not yet; almost never; never. You can also quickly pick out the reports which are abnormal, either high or low, and thus dig a little deeper to find out why.

On completion of the initial scoring the secretary compiled all of the scores and brought us a list upon which we could base the decision of how many to rescore. In this case, we rescored three times as many files as we expected promotions. If the initial scoring was an agonizing, soul-searching process, the rescore was many times worse. The atmosphere in the room was charged with tension and each member of the board was obviously thinking, concentrating, studying hard. After following the same recording process as before, the secretary again compiled the list based on our new scores and there we had the Corps merit list for 1983. I, at least, left that evening feeling whipped and unable to put two sentences together into a coherent thought. One of the other members of the board said he felt "spongy".

We reconvened the next morning and reviewed and confirmed the list and prepared the board report, a largely mechanical exercise. The board then dispersed.

Now I would like to leave you with a few of the impressions I gathered through the sitting of the board. First, with regard to PERs, I would say that the PERs being prepared on Armour Captains are generally of high quality. Generally, narratives and comments match the scores. I saw no signs of the gross inflation which conventional wisdom states plagues the PER system. From the point of view of a board member, I would again adjure those writing PERs to keep the narrative brief. I can assure you that long narratives do not impress the board and are frequently not even read. A concise statement by the reviewing or next senior officer can be very effective. Reports from CLFCSC and the Squadron Commanders course are a very important part of the file and are reviewed carefully, bearing in mind the time and circumstances under which the officer attended.

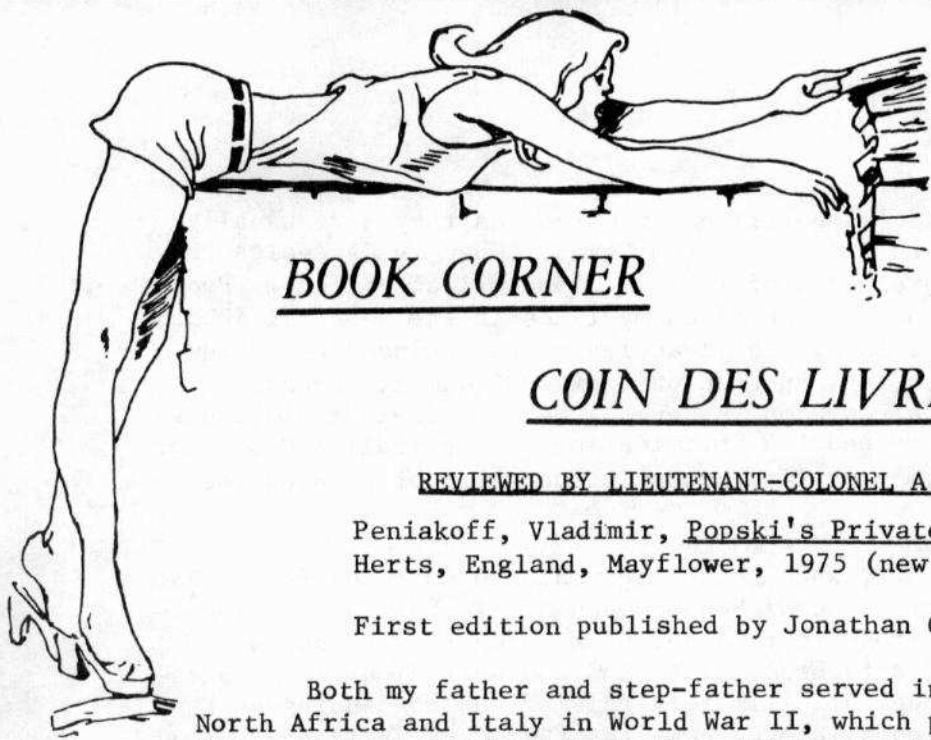
Second, I would like to share my impression of the board process. The foremost observation I must make is that the process is FAIR. I can think of no other promotion system which could be fairer. First, there is the individual file which contains all of the information you could want on the officer. Second, there is the composition of the board. Among the four Armour members of the board each regular regiment was represented and, given the size of the Corps, at least two members knew every officer whose name appeared. Objectivity is built into the system by virtue of the board process and no member can push favourites without solid justification in the file.

The board process is also encouraging. As I noted above we have a large number of very capable officers. We could easily promote three times the number we will and have good Majors. For the same reason, however, the process is slightly depressing. Many of this large number of good officers will not get promoted, not because they lack talent, qualifications or capabilities, but simply because of the quotas imposed on the Corps. For similar reasons, participation in the board process is humbling. It makes you wonder how you yourself ever got through the process.

I hope that this article has been of some value to you in giving you further insight into the promotion process. I have come away from the board with a far better understanding of the process and richer for it. I recommend to anyone who has the opportunity to sit on a board to leap at it. The measure of our work, of course, is the list we produced. When the results become known some will be happy, some will not be. Regardless of your views on the list, I can assure you that it was developed only after a lot of thought, emotion and hard work by a group of officers who had the best interest of the Corps at heart. PERSEVERANCE.



THE THREAT - BMP



BOOK CORNER

COIN DES LIVRES

REVIEWED BY LIEUTENANT-COLONEL A.P. CONRADI

Peniakoff, Vladimir, Popski's Private Army, St. Albans Herts, England, Mayflower, 1975 (new edition, p.b.) 560 pp.

First edition published by Jonathan Cape, London, 1950 (out of print).

Both my father and step-father served in the British Army in North Africa and Italy in World War II, which probably fueled my interest in Popski's Private Army (PPA), for I was 17 years old when I first read it. I read it again in 1982 after having commanded a recce regiment equipped (as was the PPA) with jeeps. Popski's Private Army is a most interesting, readable and personal account of the author's war service in North Africa and Italy during 1940 - 1945. During this Peniakoff (Popski) raised and commanded the unit known as "Popski's Private Army".

Lieutenant-Colonel V. Peniakoff, DSO, MC (1891-1951) was born in Belgium of Russian parents. He studied at Cambridge University in 1914 but quit his studies to join the French Army as a gunner. Demobilized after World War I, he trained as an engineer and became a sugar manufacturer in Egypt in 1924. He became interested in long range motorized desert travel and undertook a number of such trips, which experience was to stand him in good stead when war broke out in 1939.

After a number of fruitless attempts to join the British Forces in Egypt in 1939 Popski was finally accepted as an allied alien after Belgium was invaded by the Germans in 1940. At the age of 49 years he was commissioned in the Libyan Arab Force. During his experience with this unit he became familiar with the Senussi Arabs and their language and culture. He also realized the necessity of operating a small unit behind enemy lines in Italian Cyrenaica to perform intelligence, reconnaissance and sabotage tasks for Middle East HQ.

In March 1940 Popski, with a force of 25 all ranks, designated the Libyan Arab Force Commando, commenced operations in Cyrenaica. His force differed from the Special Air Service (SAS) and the Long Range Desert Group (LRDG). The Libyan Arab Force Commando was mainly recruited from the Libyan Arab Force while the SAS and LRDG were British; Popski's Commando utilized the Senussi Arabs as agents to obtain information whereas neither the SAS nor LRDG controlled an Arab spy network.

During the Commando's operations in Cyrenaica they were usually transported by the LRDG to Cyrenaica from Egypt. When in Cyrenaica they travelled by horse or camel much of the time, as well as by jeep. Popski spent five months continuously behind enemy lines in the Jebel el Akhdar with his Commando and the LRDG. Their achievements included reporting enemy transport movements, destruction of enemy POL dumps, release of South African POWs from a POW Camp in Derna, the coordination of Senussi resistance to the Italians and the intimidation of the Italian Commander of Barce to stop him from executing Senussis suspected of helping the British.

In spite of all this, when Popski returned to Cairo he found that his unit had been forgotten and disbanded when Middle East HQ, during a defeatist scare, moved to Palestine and back to Cairo. Popski was then able to get himself attached to the LRDG and participated in operations with them in the hope of ultimately raising and commanding an LRDG Squadron. This proved impossible because the LRDG's establishment did not allow for another Squadron. However, during his two months with the LRDG he was most impressed with Major Jake Easonsmith, a Squadron Commander "... for me a model Commander, most of what I did when I got a Command of my own was founded on his example, and my contacts with him have altered permanently my attitude to life in general, to risk and danger and to death".

During an LRDG raid on Barce, Popski learned much which stood him in good stead later on. After a spell in hospital he was appointed Commander of a unit of 23 all ranks and six vehicles tasked to raid the enemy petrol line in Cyrenaica. A Staff Officer at Middle East HQ, in charge of operations behind enemy lines, facetiously suggested the unit be called "Popski's Private Army". The name became official and Popski began to recruit. His selection criteria and judgement of men appears to have been one of the factors of the PPA's success. He picked mature volunteers, steady types - not adventurers - and he wanted specialists such as drivers and signallers. His men, however, came from a wide range of units and corps.

The PPA's campaigns were fought in Libya, Tunisia and Italy. Their exploits varied from political intrigue with Arabs, recce, sabotage, resistance support and, briefly, military government. They fought in deserts, mountains and river flood plains, in all seasons, often behind enemy lines among friendly, hostile and indifferent populations. In short their operations were varied, their attitude flexible and their methods at times experimental and often unorthodox. By the end of the war the PPA had grown to almost 200 all ranks.

Although the unit grew in size its success was due to its aggressive daring (in spite of Popski's statement that he did not like surprises and

did like careful planning). An example of such daring is the surrender of Chioggia with 700 men, two batteries of 88's, one battery of coastal guns, 120 heavy machine guns and three months supplies to a PPA force of nine men in three jeeps. The German Commander thought that he was faced with at least a battalion!

What was the secret of the PPA's success? My own view (Popski neither asks nor answers this question directly) is that there are five main reasons. First, the personnel selection policy resulted in volunteers; second, they all learned by experience (on job training); third, Popski's informal but businesslike style of leadership. This involved much use of first names but insistence on high standards of performance of all ranks in things that mattered. Fourth, delegation of duties - the administrative support was controlled by a very able French Officer - Caneri; and fifth, maximum flexibility and seizure of opportunities that arose.

Popski's style of writing is informal, almost conversational, and through it his personality, opinions and prejudices emerge. A man of strong opinions, he disliked most Italian nobles, Frenchmen (with important exceptions), and most higher HQs. He did not think much of the Infantry Guards regiments he met and in contrast, thought highly of New Zealanders, the LRDG, Jake Easonsmith especially, and Montgomery. One wonders how a free practical spirit such as Popski would get on in today's 9 to 5 career oriented Canadian Army.

Popski's war memoirs make interesting reading for many reasons and I strongly recommend that all Armoured Officers read it.



M 60A3

REVIEWED BY CAPTAIN J.M. SNELL, CD

Victor W. Wheeler, No Man's Land, Calgary, Alberta Historical Resources Foundation, 1980), pp 447, illustrated

Victor Wheeler's No Man's Land (not to be confused with John Toland's work of the same name) is a fascinating book. It is not an especially well written work but it is nevertheless an interesting study in how men interact in the very close confines of French Warfare. Written over fifty years after the event, Wheeler is haunted by his encounter with a dying German youth during a charge across "No Man's Land". In his own way, he describes the agony of the soldier.

"War, stripped of the healing emollient of the spirit, is murder compounded. I have asked myself a thousand times if keeping my naked bayonet pointed upward was more compassionate than plunging it through the wracked, quivering body of a grief-stricken German mother's "teuer sohn". I have rationalized that to tip my flask and touch a sip of cool water to his parched lips to ease his tormented body momentarily might have meant the loss of the lives in my charge, if not my own; the failure of my mission, if not subsequent disaster to my Battalion" (pp 337)

Victor Wheeler was an immigrant from the British Isles who settled in Western Canada during the pre First World War period. In early 1915, Wheeler like so many others of a British background, responded to patriotic appeals to join the ranks of the Canadian Expeditionary Force. Signing up with the 50th Battalion, 4th Division, CEF, Wheeler joined as a signaller and remained a signaller until the end of the war. Despite attempts to either promote or commission him, Wheeler remained in the intense world of the trench signaller who was expected not only to understand his communications responsibilities but also to be an expert scout and guide in "No Man's Land".

Wheeler maintained an unofficial diary throughout the war. However it was not until 1960 that he undertook the writing of this book. He spent over fifteen years attempting to have it published but it was not until after his death in 1979 that his widow has been able to have the Alberta Historical Resources Foundation and the Alberta - NWT Command of The Royal Canadian Legion sponsor its publication. It is fortunate that they did.

No Man's Land is not an autobiographical endeavour although it concentrates on Wheeler's own experiences. It is not a regimental or battalion

history although it is written within the framework of the life of the 50th Battalion CEF. Rather it is the story of men - men at war. Men who share the common war or deals of friendship and death, courage and fear, joy and sorrow. It is an old soldier's axiom that once the shooting starts, that soldiers quit fighting for God, Country, and apple pie. It is then that they begin fighting for each other, a kind of common survival. This is a theme that runs below the surface of Wheeler's description. It is almost the thread that holds the book together.

Wheeler also demonstrates that if one tries hard enough, war is not completely dehumanizing. His two abiding inspirations were his unshakable Christian faith and his deep passion for music. Throughout the war, Wheeler carried his own copy of the Bible with him. Once after having been out of the line for several days, he realized that he had lost his testament in a barn while billeted there. Returning several kilometres, he searched for his Bible all morning until he found it. Additionally, Wheeler maintained a violin in the baggage trains of the battalion. When out of the line, he took every opportunity to escape the conflict through music. Even in the horrors of war, man attempts to retain his civilization.

Although overly long and tedious in spots, No Man's Land is a gem in the rough. For those fascinated in the First World War, a war unlike all others, this is a must.

ANSWERS TO AFV RECOGNITION TEST

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|-----------------------|-------------------|
| 1. LUCHS | W. GERMANY (NATO) |
| 2. SPARTAN FV 103 | U.K. (NATO) |
| 3. M-1974 SP HOWITZER | U.S.S.R. (WP) |
| 4. BO 105P | W. GERMANY (NATO) |
| 5. BLACK HAWK | U.S.A. (NATO) |
| 6. BRDM 1 | U.S.S.R. (WP) |
| 7. FUG | HUNGARY (WP) |
| 8. STRIKER | U.K. (NATO) |

Editor's Note: This letter arrived in our files via the Corps Adjutant. It has been reprinted for all in the hope that Mr. Wallace will get some support from the vast group of "black hats" who receive the Bulletin.

605 Island Park Cr
Ottawa, Ontario
K1Y 3P4

December 5th, 1982

Colonel Clive Milner
Director Armour
National Defence Headquarters
Colonel By Drive
OTTAWA

Dear Colonel Milner:

I am now working on the start of the period of the Second World War on my project about the history of armour since 1914 (in Canada that is). One thing I have discovered is that there was a considerable gap about tactical doctrine for armoured car and tank battalions in the inter-war period of 1920 and 1939. Naturally most of what was or should have been said came from British publications, and unfortunately neither D History, DND library or the War Museum have been able to help in uncovering the following publications:

Armoured Car Training (Provisional) 1921
Provisional Instructions for Tanks and Armoured Cars, 1927
Armoured and Mechanized Formations, 1929
Armoured Car Training Manuals Volumes I and II (1930 and 1931 respectively)
Drill for Cavalry Armoured Car Regiments 1934
Modern Formations 1931
Short History of the Royal Tank Corps, Gale and Polden
Aldershot 1930, 112 pages.

I wondered whether when your next Bulletin goes out to the RCAC a request might be put in saying I would like to borrow any of the above should any of the readers happen to have them or uncover them among "wartime momentos".

I might say I am having one hell of a good time with the project and have produced 22 chapters to date.

Yours sincerely,

(Sgd) John F. Wallace

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