



THE CANADIAN GUNNER
1971





THE CANADIAN GUNNER

Volume 7

December 1971

Captain-General, Royal Regiment of Canadian Artillery
Her Majesty The Queen

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The **Canadian Gunner** is published annually and is financed by the Officers' Regimental Fund of the RCA Central Funds.

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MESSAGE FROM THE COLONEL COMMANDANT



Major General H.A. Sparling, CBE, DSO, CD

With the passing of 1971, our Regular Gunners have entered their second century of service. Much has been written during the past year about this centennial and I do not want to unduly belabour the event particularly as the Regiment as a whole celebrated its centennial some 16 years earlier, 100 years after the Militia Act authorized a small Voluntary active Militia and several of our batteries of that day became a part of this force. It was in fact from these Militia batteries that the majority of the personnel were found to get "A" and "B" Batteries "on the road".

I do, however, want to congratulate all those who organized and participated in the various centennial parties during the year. 1 RCHA, in which "A" and "B" Batteries serve, put on an outstanding family programme. The regimental dismounted and mounted parades were of the expected high order and the fun and games which followed were obviously enjoyed by the whole regimental family. A particular feature of 5e RALC's celebration was most appropriate — the 100 gun salute fired in "B" Battery's birth place was carried out from its original gun practice position on Cap Diamant on the Plains of Abraham, the first round being from a 24 pdr of 1871 vintage. And in Ottawa, on Dominion Day, 2 RCHA, 30 Fd Regt and The RCA Band took part in the Centennial Programme of the Canadian Armed Forces in which Regular components of all "environments" recognized that this was also their centennial.

The final days of 1971 produced another important event in the life of our Regiment when Volume II of our History, *The Gunners of Canada*, came off the press. Now, along with the earlier Volume I, published in 1967, we at last have a comprehensive Regimental record from our early colonial days through the years to recent times.

To the host of Canadians who have served our Regiment over past years, *The Gunners of Canada* will recall events and places and comrades of lasting memory. The story will be read and read again with a justifiable feeling of pride that they were a part of this stalwart band of citizenry which served Canada's guns.

To our serving Gunners, Regular and Militia, our Regimental History will enable them to learn of the ways and means whereby their predecessors combined to mold the Regiment into a highly competent military body capable of meeting all challenges both in peace and in war. If today's Gunners and those of the future take full advantage of the experience and example set out so well in this historical work, they will find encouragement and guidance in finding solutions to Gunner problems of their times.

May I again thank the Editors and staff of *The Canadian Gunner* for their hard work in publishing this "voice of the Regiment". It is a most valuable contribution to the life of the Royal Regiment of Canadian Artillery.

A handwritten signature in cursive script, reading "H. Sparling". The signature is written in dark ink and is positioned in the lower right quadrant of the page.

FOREWORD BY THE DIRECTOR OF ARTILLERY



Colonel D.W. Francis, CD

Once again we are indebted to Commander CFB Shilo and to Commanding Officer 3 RCHA for editing and producing the 1971 edition of *The Canadian Gunner*. That they have done so in the face of mounting difficulties and dwindling resources is indicative of the devotion to the Regiment which we have come to accept as a normal and continuing commitment on the part of all officers and men. Nevertheless, I wish to thank them on behalf of the Regiment for undertaking this task and performing it so efficiently.

The past year has been relatively uneventful. Mercifully we have been spared the usual force reductions which result in new establishments and disbanded units. Theoretically, at least, we have had a year to absorb last year's changes and learn to operate effectively on the new establishments, inadequate as they are.

The main change during 1971 has affected the Directorate of Artillery, which has now become merged with the Directorate of Equipment Requirements (Land), thus "double-hatting" the Director. In addition, under the terms of CFAO 2-10, D Arty has been appointed "Branch Adviser" for the Artillery Branch. As such he is responsible for advising on artillery matters, but the interface between D Arty and Artillery Adviser remains cloudy, as they are virtually one and the same.

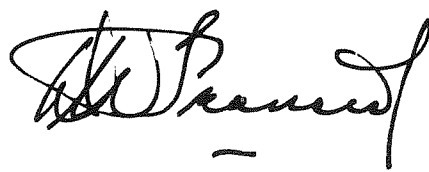
1971 saw the retirement of the Senior Regular Gunner, LGen DAG Waldock, CD. We wish him a long and happy retirement and we welcome the new Senior Regular Gunner, BGen EMD Leslie, DSO, CD. General Leslie needs no introduction as he has had a long and distinguished career in the Royal Regiment; he is currently Commander Canadian Forces in Cyprus.

The Colonel Commandant has covered in some detail the celebration in 1971 of the RCHA Centennial. Throughout the Regiment appropriate ceremonies marked the hundredth birthday of A and B Batteries, the first of Canada's regular force units.

Looking forward to 1972, it appears that we can expect another reasonably stable year in which to pursue the policies set out in the Government White Paper of 1971. I trust that 1972 will give us the opportunity to find solutions to the vexing problems of personnel, training and equipment which seem always to need attention.

For my part, I expect this coming year to give up the post of Director of Artillery on posting to a new job. The past three years have been rich in interest and challenge, having encompassed a period of almost constant change, both in the affairs of the Regiment as a whole, and in the organization and function of D Arty itself. It would be nice to look back on three years of progress, but my concern has been not so much with progress as with survival. Dwindling budgets and changing roles have imposed a continuous steady pressure on our establishments, the effects of which are well known. Notwithstanding, it would be wrong to leave the impression that things are all bad. Despite its reduced size the Regiment is as vigorous as ever and its personnel no less dedicated than their predecessors. Our training standards are high and our equipment is adequate to meet current needs. I'll not deny that my tour has had its share of frustration, yet the job has been deeply rewarding as well, and I am keenly aware of the privilege which has been mine in representing the Regiment during these difficult years. The rewards stem primarily from my contact with Gunners, Regular and Militia, as well as Allied, across the country and in various parts of the world. I am grateful for the unfailing support I have had from all Gunners, and I should like particularly to voice my appreciation to the Colonel Commandant for his wise counsel, his patience, and his example which has been a continuous source of inspiration.

I know that the same support I have enjoyed will be given unstintingly to my successor. I wish you all good luck and good shooting.


Colonel

THE COLONEL GEOFFREY BROOKS MEMORIAL PRIZE ESSAY COMPETITION

Eligibility Regular and Militia officers of the Royal Canadian Artillery, and Officer Cadets enrolled under the Regular Officer Training Plan, the Officer Candidate Training Plan and Reserve Officers University Training Plan, who have completed their first phase of training and who have selected the Royal Canadian Artillery as their corps.

Topics

- (1) *The Royal Regiment of Canadian Artillery has retained the doctrine that the eight-gun, two-troop battery is the most flexible and efficient organization for provision of close support in land force operations. However, for reasons of economy it has been necessary to reduce batteries to six guns, which in most situations can function most economically and efficiently as a single fire unit. Discuss the pros and cons of the single fire unit versus the two troop system and arrive at a conclusion as to whether a change of doctrine is indicated.*
- (2) *The Canadian Armed Forces have a stated requirement for a self-defence weapon system of the BLOWPIPE/REDEYE type for low level air defence of field headquarters and units. Discuss how such a system should be organized and controlled, bearing in mind the manpower and budgetary constraints faced by the Canadian Forces. Some of the aspects which should be considered are: passive versus active defence, control of air space identification, early warning, communications, training, trades structure, all arms versus artillery specialists, centralized versus unit control and methods of integrating existing small arms into the air defence plan.*

Rules Either of the above topics may be chosen.

Essay entries should be between 3500 and 5000 words in length. They must be typewritten and submitted in quadruplicate.

The title and page of any published or unpublished work to which reference has been made, or from which extracts have been taken, must be quoted.

Authorship of entries must be strictly anonymous. Each competitor will adopt a motto or *nom de plume* which will be quoted at the top of the entry.

A sealed envelope will be enclosed with the entry. This envelope will contain the service number, rank, name and address of the competitor but will have the appropriate motto or *nom de plume* only typewritten on the outside.

Entries are to be addressed to the Editor of the Canadian Gunner, CFB Shilo, Manitoba, and marked "The Colonel Geoffrey Brooks Memorial Prize Essay Competition". They must reach the office of the Canadian Gunner by 30 September 1972.

Prizes

First	\$100.00
Second	\$ 50.00

Judging The Head of Corps will arrange for a committee to judge the entries. The decisions of this committee will be final.

Results will be made known in the next issue of *The Canadian Gunner*, and the winning essay will be published in that issue.

If, in the opinion of the judges, no entry is of the required standard, prizes will not be awarded.

The Editor and Staff of *The Canadian Gunner* cannot be held responsible for the loss or return of any essay submitted; nor shall they incur any liability whatsoever in connection with the receipt, dealings, judging and reports of essays.

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1 RCHA



1 RCHA IN LAHR

The text of PERS 2010 message reads "REGIMENTAL PENNANT LOWERED FOR THE LAST TIME AT 051003P OCT 70". While the regiment became operational in Lahr at this time the move was not completed until April 1971.

We are now located in two separate areas on the Lahr Airfield. RHQ, Battery Commanders, BK's and Battery Offices are located in a first-class office building, complete with one of the best conference rooms outside of CFHQ.

All other offices, for Troop Commanders and below, and all equipment are located in an area called the South Marguerite. This area is only two miles away from RHQ and has been renamed Artillery Park.

The Marguerite consists of a large aircraft hangar surrounded by revetted aircraft dispersal bays. These dispersal areas are all connected by a concrete road and permit excellent tactical dispersal of vehicles. The main connecting road has been named "UBIQUE WAY".

The main hangar houses all guns and has office space for troop officers. The Tech Adj and MT NCO's however have a new 24-bay garage with all conveniences. Since this building is just fifty

yards away from the central hangar the whole complex provides an excellent working facility and adequate space.

The regimental and battery QM's are co-located on St Barbara's Road in an E-shaped building. Although the buildings are old, the interiors have been completely renovated and they provide a very good Q facility. The highlight of this set up is that Q staffs no longer have to spend half of their time moving stores between their respective QM's.

Several other small G.P. huts lie within the regimental lines and these are used to house the UAS, sport stores, post office and a lecture room.

The Air OP Troop, now the only remaining regimental Air OP troop, is located in the centre Marguerite. With major work projects taking place on their facilities they are making the best of a small area.

In summary, the regiment's situation in Lahr is the answer to a Troop Commander's dreams: an office in the same buildings as the guns, and RHQ 2 miles away.



The guns in Artillery Park.

EXERCISE TALLY HO

The latest in a series of *Tally Ho* exercises was conducted by 1 RCHA in April 1971. The exercise involved 200 members of the regiment in escape and evasion through 100 kilometres of the rugged Black Forest of southern Germany. The scope of the exercise was to practice the principles of the Geneva Convention, practice and develop leadership and cross-country navigation through hostile country, and test physical endurance.

It was a quiet Sunday afternoon. Members of 1 RCHA were in the thick of preparations for the annual technical inspection, and the villainous Schwarzlanders struck. The participants were captured and transported deep into the Black Forest to a prisoner-of-war camp. Clothes and belongings, less boots, were taken, and black coveralls were issued in lieu. Some clever individuals managed to retain small amounts of money that had been sewn into boot laces. One person possessing great initiative succeeded in concealing a small compass on a part of his body frequently over-looked by the searchers.

Through the diligence of a frustrated sanitary-duty man, a large tunnel was completed and all escaped from the camp in groups of ten. The task was to navigate the treacherous, hostile Black Forest to the safety of the now-liberated Rhine Valley and a sanctuary in the Langenhard training area near Lahr.

C Sqn the RCD, elements of 1 R22eR, L19 aircraft from Air OP Tp 1 RCHA, and military and civilian police were dispatched to capture the escapees. The local populace had been warned by newspapers and radio to report the fugitives to the nearest police station or telephone Lahr where a duty officer was present 24 hours a day.

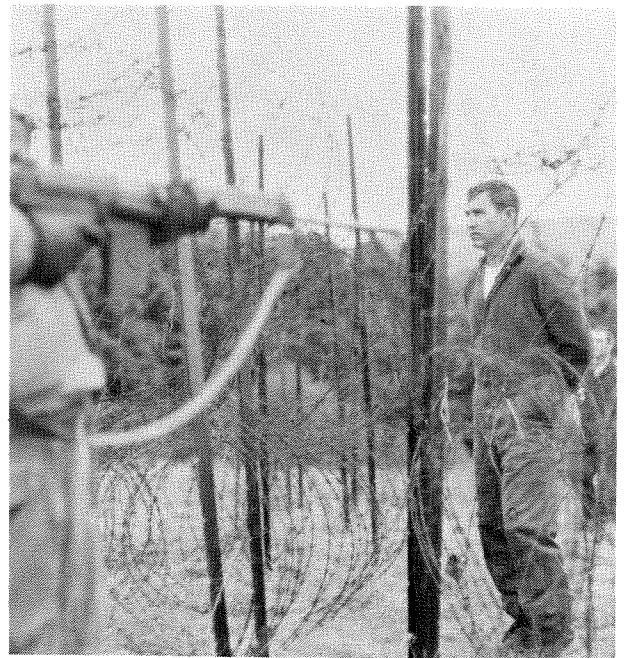
It was obvious that the route to safety would have to be away from main roads and built-up areas, and all movement would have to be by night. Some civilians were sympathetic and offered schnapps, food, and directions, but sympathetic civilians were exception not the rule; shortly after being sighted by a German farmer, a helicopter would appear scattering a team in all directions, which inevitably led to capture.

Those of the approximately 40 prisoners that thought the exercise was over after their capture were sadly mistaken. The following is a detailed account obtained from one of the unfortunates.

"I was captured around 0300 hours on the first night of the exercise. I was shoved in the back of an enclosed 2-1/2 ton truck and transported to a



Cpl Diamond and a prisoner.



Maj Thompson under guard.

stockade. When I arrived, I was roughly pulled from the vehicle and whisked into a small tent where I was forced to my knees in the mud and searched. Immediately, questions were fired at me, "Where were you captured? What unit are you with?" I was cold and wet. My head was spinning but I answered with only my name, rank and serial number. This did not please my captors and my hands were thrust behind my back and tied. I was blindfolded and escorted to another tent where I was ordered to strip. I was given a receipt and told to sign for my belongings. I did so. I was taken to another location and ordered to stand and not move or I would be shot. I must have stood for hours. Never had I been so miserable standing in the rain and cold. I was again taken away and ordered to sit. My blindfold was removed and I was facing a distinguished gentleman wearing Red Cross arm bands. He identified himself as the local representative of the Red Cross. He seemed concerned and asked how I felt and if I had been mistreated. I filled out a Red Cross questionnaire giving my unit, next of kin, and addresses to enable the Red Cross to contact my family and deliver mail. I was again taken away and ordered to stand. After standing in the rain for hours my body could no longer bear the

punishment. I began to weave and several times dropped to my knees only to be yanked up and ordered to remain standing. My guards finally took pity on me and took me to a medical van. A nursing sister was present and was very concerned about my health and that of the other prisoners. I found myself relaxing and having a pleasant conversation. Just when I felt that the war was over I was blindfolded once again and taken away."

The prisoner continued to be harassed for several hours and eventually broke down and talked. He had already given information to his captors knowingly. The receipt he signed was, in fact, a confession. The Red Cross representative was a phoney. Even the Nursing Sister was a trained interrogator with a hidden tape recorder. The blindfold confused him and the rain and cold destroyed his resistance. Consequently, he talked.

That exercise participant will probably never forget his experience, nor will the others equally duped. Those who escaped successfully know well the formula for their success and the others likewise their folly. Thus the lessons were driven home and all similarly enlightened. Tally Ho!

A BATTERY CENTENNIAL TOUR

On 8 Aug 71, 19 members of "A" Battery, 1 RCHA completed their battery centennial project. The project consisted of retracing the routes taken by 1 RCHA through the Italian peninsula in World War II. One representative each from RHQ and "C" Bty along with 6 RCA (Militia) personnel participated in the project. The group camped along the route using the small community bus for transportation.

1 RCHA's primary role in the Italian Campaign was the provision of artillery support for the Royal 22e Regiment, The Carleton and York Regiment and The West Nova Scotia Regiment all of the 3rd Canadian Infantry Brigade. On many occasions 1 RCHA provided artillery support for the other two brigades of the 1st Canadian Infantry Division. It must be noted that the 1st Armoured Car Regiment (The Royal Canadian Dragoons) was part of the 1st Division.

The route taken in 1943 took us through Catanzaro along the south coast to the instep of the Italian boot, up hwy 92 to Potenza over to Sprinazzola then up to the plain at Foggia and NW through the Gambatesia hills and along the Fortore Valley to Campobasso we travelled through the Sangro River Valley then north to the Morso River. At the mouth of the river we visited the Morso River Canadian Cemetery which contains the graves of just

over 1300 servicemen, the youngest having been killed at 17 years of age. We then visited Ortona where buildings still show the scars of the fierce fighting in Dec 43 at the Gustav Line.

In May 44 the 1st Division was redeployed south of the Gari River at the foot of Monte Casino. We visited Monte Casino and the British Commonwealth War Cemetery in Casino where the Graves of 600 Canadian servicemen are contained. We followed the route taken by 1 RCHA up the Liri Valley to Frosinone where the 1 Canadian Corp's drive for Rome came to a halt as the US Fifth Army was given the honor to enter Rome.

In early Aug 44 1 RCHA was deployed just south of Florence to carry out harassing fire tasks, then by late Aug 44, was redeployed in an area just south of the Metauro River, near Pesaro. During the next four months of fighting 1 Canadian Corps advanced to the Senio River over a distance of about 70 km. In March 1945 1 Canadian Corps was moved from Italy to join the 1st Canadian Army in NWE. Our visit came to a close when we drove over the low hills between Pesaro and Rimini and then across the lowlands between Cesena and Ravenna. From the Republic of San Marino we got a spectacular view of the Pesano-Rimini-Ravenna region, the last area in which Canadians fought in Italy during World War II.

B BATTERY CENTENNIAL TOUR

As part of the Regiment's festivities to celebrate A and B Batteries' Centenary, a small contingent from B Battery toured the World War I battle sites in France.

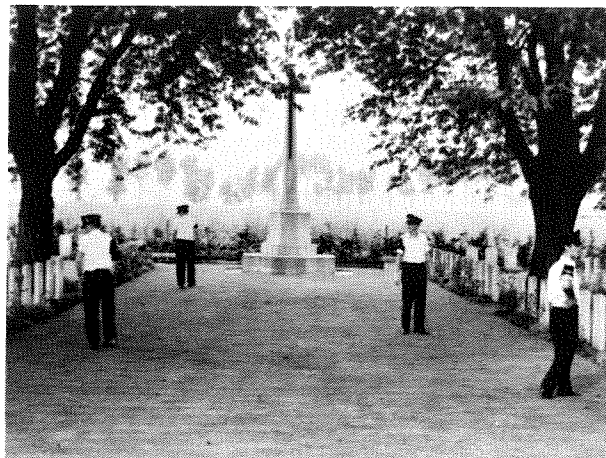
Armed with scrolls bearing the Artillery Crest, the B Battery contingent of Lt A.E. Roach, MCpl Blake CW, Bdr Holden LB, Bdr Martin JG, and Gnr Spurrell RE, set out to obtain the signature of the Mayor of each town where A and B Batteries, then of the 1st Canadian Calvary Brigade, were in action.

For the most part, the tour centered around the French cities of Cambrai, St. Quentin and Lens, where the Brigade fought delaying actions during the German Spring Offensive of 1918 and later during the Allies' last 100 days Offensive. As well, places such as Ginchy, Guillemont, Rosieres-en-Santerre, Masnieres, Chaunes, Gouzecourt and Falvy, many of which appear on the RCHA Memorial in Kingston, Ontario, were visited.¹

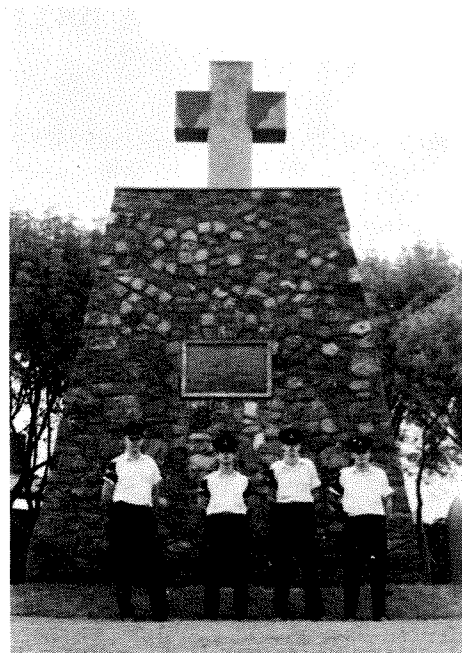
After successfully completing the official part of the tour,² the group went on to visit other areas of interest to Canadian Gunners. Numerous Commonwealth gravesites were visited, Le Cateau — the French town where the RCHA last trotted their guns into action; La Petite Couave Farm, Sanctuary Wood, and the Memorial at Thelus were of particular interest. The most noteworthy of these, however, was Vimy Ridge, where even today the land bears grim evidence of the devastating power of the guns.

From Vimy Ridge, the group made their way to Ypres, the town where the first German gas attacks were launched. Also in Ypres, as fortune would have it, were the elderly British veterans, "The Contemptibles", who have returned each year for Remembrance ceremonies. At "The Contemptibles" request, the B Battery group escorted their colours to the Cloth Hall for the reunion with the Mayor of the town and later, to participate in the ceremonies at the Menin Gate Memorial.

In the archway of the Memorial, the playing of the *Last Post* provided a most suitable climax to the B Battery Centennial Tour.



One of numerous Commonwealth gravesites visited.



The memorial at Thelus.

NOTE 1 Detailed accounts of the actions in or near these towns are found in "The Gunners of Canada" by Nicholson.

NOTE 2 The signed scrolls are now contained in a Centennial Commemorative Book held by 1 RCHA.



The Canadian contingent and "The Contemptibles" meet with the Mayor of Ypres.

THE GUNNERS

Reprinted from the journal of The Gunners' Association of Rhodesia.

*The Gunners are ubiquitous,
 Their morals are iniquitous,
 They're always up to escapades
 When not discharging cannonades.
 Though some are Field and some are Horse
 And some are Mountain, all are coarse.
 With limbers full of pigeon holes,
 They carry shrapnel shells in shoals,
 Though out on training, so I hear,
 They do not carry shells, but beer!
 They simply love to gallop past
 The Infanteers, who murmur, "Blast
 Those dirty bloody Gunners! Must
 They always cover us with dust?"
 The Infanteer walks miles and miles—
 The Gunner simply rides and smiles.*

GRAFENWOHR

One of the major changes in the life of 4 CMBG units after the move to Lahr was the switch from the British-run training areas of Bergen-Hohne, Soltau and Sennelager to those run by the American, German and French forces in central and southern Germany. The main areas with which we have now established acquaintance are those run by the 7 (US) Army Training Centre at Grafenwohr, Hohenfels and Wildflecken. As was the case "up north", the Regiment is fast becoming adept at surviving in these places both as an integral part of 4 CMBG and as a loner on unit practice camps. CPX's with other national formation artillery further increase our exposure time.

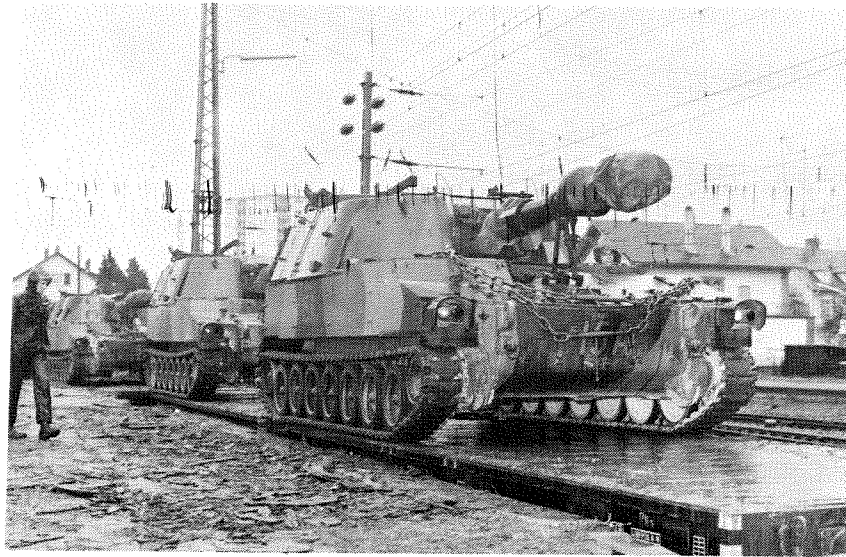
Grafenwohr is the main training area of the three mentioned. It is located about 60 miles north-east of Nurnberg and 20 miles west of the Czechoslovakian border; it covers approximately 57,000 acres, and is the location of 7th Army Training Centre Headquarters. Hohenfels is about 45 miles south of Grafenwohr, covers 40,000 acres, and functions as a satellite under direction of 7th ATC HQ. Wildflecken is about 185 miles northwest of Grafenwohr and covers 18,000 acres. Co-located at Grafenwohr is the 7(US) Army Combined Arms School which teaches approximately fourteen courses with a programmed annual input of over 6,000 students. The three areas are used by American units in a general training cycle of live firing and detachment level proficiency training at Grafenwohr, followed by

formation tactical training at Hohenfels. Wildflecken is used for general training by battalion-sized units or brigades, including specialty practices such as village clearing for infantry units. All three contain extensive facilities for special weapons firing and trials, and are used by several other NATO forces, especially German.

Now, about this Grafenwohr, known by enthusiastic boosters as "the big Graf". 1 RCHA holds the 4 CMBG title for exposure time to date. The two major visits were in January and February this year — the first as part of 4 CMBG and the second on our own hook.

The aim of the concentration in January was to complete annual classification, conduct dry and live firing practices to battery level, and — most importantly — to use fully and examine the facilities available. All three were accomplished with no fatalities, although we almost lost the DCO, RSM and entire QM staff on a few close calls in the Bivouac and Logistics war.

You see, as we painfully discovered, the key to life in Graf is to learn to adapt and develop an effective in-fighting technique to counter the training and logistics regulations and their implementers. We learned that the only way to keep the camp authorities from towing away a parked, unsecured 5 ton or jeep was to chain and lock it — like



Capt BM Lees supervises the unloading of A Bty tracks on their arrival in Grafenwohr.



Once off the road, wheel movement in Grafenwohr can be a major problem.



C Bty M 548s swim after the guns during February firing practice.

the man said. Also, that spilled diesel fuel sinks into the ground at 1½ feet per day and that, yes, you will dig it up and replace the fill before leaving – like the mar also said. The need to construct barbed entanglements around the separate MT areas and tracked vehicle parks for security against non-Canadian thieves was pretty well discounted; however, against Canadian thieves? Contrary to initial fears by certain faint hearts, the Canadian animal-acts in the officers' club went over rather well. The camp accommodation staff and store-men taught us by example how to one-up the receiver. When the procedure was repeated in February we probably came out ahead, at worst we were even-up. This new situation dictated the implementation of a new SOP – 1 RCHA would henceforth be led into Graf by the RCPO going low profile to the Training Conference Room while the Quartermaster cut and hacked his way into camp with the advance party.

In order to simplify the several anticipated rail moves to the training areas (almost 500 KM by autobahn) and to practice operational movements, a unit SGP for rail movement was devised and initially used for this move. In essence, two identically loaded trains are used with 1½ batteries per train, each with cook and a battery kitchen vehicle, to operate the diner. The OC of the divided battery then commands the road move of the wheeled vehicles, a trip of about ten hours depending on weather

and traffic conditions. The SOP is sound and has subsequently been used six times for moves to and from training camps and exercise areas.

One requirement that the Regiment met in January was the loading of all first line ammunition on trains at Lahr. From the railhead in Graf the RSM and his M548 posse took it to a storage area 12 miles away and off-loaded. It was guarded there for a month and the drill was repeated for the return trip. Not to forget nearly 2600 rounds of training ammo, which underwent an amazing amount of shuffling and handling to reach the guns. Apparently some rounds were so grateful for the end of the trip that they climbed into the chamber unassisted. Amongst such attention-getting activity, the RSM literally fired one of his favourite Service Battalion Ammunition drivers. It must have been the one who, in week four, still refused to deliver fuzes, projectiles or primers to the same battery position on the same day.

Naturally, we accepted full liability for a few *faux pas*. For example, most units had people who just could not be cured of inadvertently using the Range Control net handset; one disadvantage of our rank structure (outdated but still used) is the futility of denying responsibility as a unit for the tie-up of that net by the transmission "Turn right at the next intersection ... Bombardier". And when



At the OP, LCol MD Calnan, CO of 1 RCHA, briefs Zero while BGen Camp, Commander of 7 US Corps Artillery, watches A Bty fireplanning procedures.



B Bty guns move into an assembly area during January practice camp.

one sub-unit righteously reported an “unsatisfactory state of police” (too much garbage around) upon entering an area, the last occupant – thereby responsible – happened to be a sister battery.

Once comfortably settled in, the several valuable training practices could be exploited. For the first time we were able to fire direct at full charge and, therefore, to calibrate telescopic sights and conduct anti-tank shoots. Adjustment to within 180 M of a special OF bunker and allowing tanks in the impact area permits realistic close adjustment. “A” Battery FOOs, and an RCD squadron joined forces for a realistic practice in which a close target was called and adjusted until, at fire for effect, shrapnel ricocheted from the tanks. Smoke was then ordered and the squadron made a covered tactical withdrawal.

With judicious planning for safety and impact area selection, quick actions can be made fairly realistic – an impossibility on the northern ranges. The absence of prescribed minimum safe fuze settings and a more realistic attitude to the likelihood of falling base plates (he should have worn his helmet – like the man said), allow for better use of the available impact area for carrier shell than was possible in Munster Lager.

All training is limited by the small size of the permanent impact area, night road-movement

control procedures, and conflicting interests on a range system used virtually every day and night of the year except for Christmas and Easter. The density of usage results in unpredictable but absolute limitations in firing smoke and illumination since it may cause difficulties for artillery units practicing for Annual Training Tests. In addition, tank ranges all face one common impact area and have priority over artillery firing. Illumination shoots are often terminated or delayed by night tank firing. “B” Battery took the honours in delays, as they managed to fire two rounds in two nights. Use of fixed-wing aircraft for air observation is curtailed by a general restriction on under-trajectory flying, as the number of units normally firing there result in a “fly line” too far away from the impact area.

The unit must perform many of the safety and planning functions normally done by Canadian and British range control staffs. Impact area definition, imposition of charge restrictions if required, firing co-ordination arrangements, and preparation of any necessary safety traces are all done by the Regiment. On the other hand, the final statement on safety being “the unit commander is responsible” allows us to implement whatever safety drills and controls we choose to devise except for a few absolute restrictions.

It is still not certain whether the visiting AIG's, WO Balma and (now) WO Rossie, were being

especially good to us out of respect for our extraordinarily high gunnery standards or out of compassion and sympathy for our valiant struggle to manufacture paper and conduct practical training for the first time in this location. Captain Zawyrucha's approach was a little more traditional, but then he escaped the initial two weeks of the conflict.

The practice camp in February was a unit affair and proved to be a hectic, physically demanding, and professionally satisfying experience. Having adapted to life in Graf (as much as anyone could be expected to), we jumped right in with elbow telescope calibration and sub-unit shakeout firing. This was followed on 23 Feb by the direct fire competition (seventeen individual guns) and quick action competition (six separate sections/troops) as part of the overall bid for the Elkins Trophy. Both these events were won by "B" Battery against quite impressive displays by "A" and "C" Batteries. The CO's 72 hour fire and movement exercise rounded out the practice camp.

During this exercise, we were visited by BGen Camp, Commander 7(US) Corps Artillery, who toured both gun positions and OP locations. Two RCD squadron commanders tasked the OP officers throughout and did much to keep them honest - somebody had to after three weeks of shooting into the same 5KM x 2KM area. The exercise ended on a note which the DCO and RSM hope is never heard again. You see, there is nothing more demoralizing to a unit than to have a surplus

of ammunition to be hauled back to camp and when the Regimental Coloured Smoke Shoot ended, all attention focussed on the one remaining round in stock owned by "A" Battery. It was one of those which lost its fuze in the mill - that fuze was with "C" Battery. Since the CPO of A had an aversion to firing unfuzed rounds, bets were placed on the Fire Orders net while the fuze went from "C" to "B" from "B" to "C" and finally from "C" to "A", where it was fired. With "cease fire" from the CO and final garbage patrol/area clearance performed by the Signals Officer, we packed to leave.

We will return in force again in Jan 72 with 4 CMBG. The training period will be slightly shorter and we now know how to make best use of the time there. The Battle Group will have the use of several different range facilities permitting implementation of a training cycle to meet all our training needs. By then, Grafenwohr will be to us much what it is to the owners - a good place to conduct technical live firing and movement practices to sub-unit level with limited tactical realism.

And, whenever activity slackens, the occupants of Graf can and do spend time philosophizing on such subjects as the effect of weather on morale or, more specifically, will the snow melt before we leave so that we spend two days picking up four months' accumulation of litter, or will it snow every third day so that we rest for a day before leaving.



Number one of C Bty begins the adjustment during a regimental fire mission.

HOHENFELS



1 RCHA cargo carriers convoy through the city of Landshut.

I could Tuesday—the-seventh: SMGs, Friday: Battle—run bore you but you’ve been on schemes. A comment or two on the differences between Canada and North West Europe; north with the BAOR and now here South in CENTAG.

Here movement by rail is a tactical way of life — chinks and chains are part of every vehicle’s EIS, twenty hour train rides part of every soldier’s regular experience. The Regiment has been divided into two equal organizations, one and a half batteries plus half of RHQ and a flying kitchen on each of two trains. The “flying” part doesn’t imply stew—ardesses; just someone’s idea of building a standard pattern kitchen 2½ ton that has a side ramp and sheltered walk from which to feed a steady flow of helmeted troops. Each train is commanded by a BC and has the complete crews of all the vehicles on board. We usually have a diner, compartments with 6 bunks each, and the occasional sheet.

Once at Hohenfels, a 44,000 acre American Reservation, we established a Brigade tented city, unlike the unit tented villages we were used to at

Sennelager. The camp proper contains all the American institutions — PX, barber, snack bar, racial problems and vehicle thefts. Even more so than the British work style, an American camp in Germany is rule bound, to the extreme detriment of tactical manoeuvring in support of live firing. We did some course shooting at a nearby camp in support of all arms Officer/Snr NCO training, but Hohenfels was dry. US systems discourage it, but the canteens were very wet.

A battalion combat group series was held for each of the two battalion groups, then a four day Brigade special in preparation for the two NATO exercises wherein the real differences lie.

1 RCHA participated in a 45,000 man, 3 nation exercise named *Gutes Omen* supporting a German Division in a two division FTX. The exercise had been war gamed during preparations to ensure the two divisions would interface at the appropriate times and places to test each’s readiness for operations. They forgot to war game 4 CMBC’s ability to move. Movement was on a “Free lines” system — implying every trail, lane and autobahn

available, and where unavailable, record your route so that her Majesty can reimburse the imposed upon property owner. Both the enemy and our allies resisted believing we were where we claimed at day break on the second day.

The third time a division rolls through a little town even the very little kids don't come out into the gardens to wave, but that's where you are out in the towns and forests and fields deploying as tactically and realistically as a no-chopping-trees-or-digging rule will allow. Recce parties scour the country for routes with strong enough bridges, while GPC's gloat when Pte Boucher reports he just 50 Cal-ed the F104 carrying the Minister of National Defence on an Armoured Recce Strike against the Canadians. The busiest man is often the Sigs Cffr - try raising a German, two US SOI's, and a Fornacode for three frequencies - "we gotta have a new push" in the US slang - calling his SLIDEX and seeing him on a full house - called Gasthaus over here.

Trying to keep track of him as well as the guns was Arty Tac. To confuse the issue we often dealt with 6 or 7 other units equipped with a mixture of weapons ranging from 175mm to Honest Johns, through the whole gambit of M108's to Dusters (M47 tank chassis with twin 40mm gun). The Inf Bn Comd's problem was to move in tactical bounds, on two routes, and somehow mix 12 of these tank-like anti-aircraft weapons into his order of march. A new problem for Canadian troops, too much AA. The German Major that owns them naturally insisted they must leapfrog, but no one could work out how to site them fast enough to keep up to M113s. They're also gas burners while all tracks of 4 CMBG are diesel.

With regard to supply, it is also the Commander's problem occasionally to resolve completely

different logistic systems. The German supply procedure requires that units pull back and lager. For *Gutes Omen*, the Brigade Commander decided it was easiest to feed all attached German units for the two days. Along with the number of units there is a language complication, besides the expected one. With an American unit on your regimental net, all in DS to a German battle group, some of the fire orders sound like the famed apology for sneezing. A new requirement is the constant use of liaison officers.

The next major exercise was in October, Exercise *Certain Forge*, a 10-day tactical exercise for the US division that flew over on the Reforger plan. 1 RCHA had under Operational Control, an Honest John Battalion and in General Support Reinforcing a Field Artillery Group of three 8-inch battalions. The Div Arty consisted of one Honest John battalion, four 8-inch battalions, and three M109 regiments as well as 1 RCHA.

But we get our highs as well - we're into coffee and C rations, use "heli's" for uppers (usually B58 Jet Ranger helicopters but 4 CMBG still has 6 Alouettes), and L19's for downers. Troop Commanders all have "Gunsmoke" radios and frequencies for FAC work, and the CO is tasked to coordinate Air Support. Cobras doing air assaults across the Danube River are impressive even without napalm.

Differences in sizes of forces, in locale, equipments, in experience, but the same soldiers, working in the Canadian way. The main difference with NWE is that you're right there when the Commanders of other nation's forces are compelled to admit our superiority - we are drastically and dramatically the only professionals left. Seven weeks in Hohenfels let the Germans and Americans be our witnesses, but more important, we know.

NAAPT B

In the 1971 edition of The Canadian Gunner, the editors included a riddle: what does the NAA PTB, which appears on the cover of The Field Artilleryman, stand for? In case some of you haven't discovered the meaning yet, we decided to publish the answer. NAAPT B stands for the first six words of a statement attributed to LGen T.W. Dunn, US Army, who said: "Not all are privileged to be field artillerymen".

ANOTHER FIRST FOR THE 1ST

Regiments can talk about their “firsts” and usually do, however, the importance of the occasions are usually forgotten or lose their meaning once the people involved have gone their separate ways. Firsts are something special, something that when not forgotten, but recorded, can be looked back upon by the individual, the unit, or the Corps, with pride and satisfaction. Accordingly, the part played by B Battery, 1 RCHA on the exercise conducted in Mourmelon, France; is of particular significance.

Mourmelon is a training area forty kilometres east of Reims in the champagne region of France. An excellent spot to hold any exercise, one should think. Although smaller than any training area used in Canada, it was suitable for the training of the 1 R22eR battle group that B Battery supports.

The conduct of the training was not unusual. Because the combat teams had not deployed together on an exercise for over a year, the emphasis was placed on basic Armour/Infantry tactics to prepare for the larger fall manoeuvres. As with any dry manoeuvre training, the full “impact” of the artillery could not be felt. Naturally, all the drills associated with the functioning of an artillery battery were practiced, but it meant little to the infantryman who could not see the rounds land.

Then the moment came, the moment when B Battery demonstrated its role in the combat team. At 0737 hrs on 08 Aug 71, B Battery fired its first round during the Mourmelon exercise, and in doing so, added another page to the history of 1 RCHA. What was the significance of that round? It was the first round fired by 1 RCHA on French soil since WW1. Who will remember it? BSM Glen Armstrong will! He fired it! As will Sgt Carpenter, RCASC for firing the second round and Sgt Wood, the third. In particular, Sgt Wood will remember it as the first time he has commanded an M109 during live firing. (Nor should he forget, being the first militia Sgt not on active duty to fire in France)

Albeit, in retrospect there were many “firsts” in Mourmelon and to different people they mean different things. To the gunner of B Battery, it was the making of history. To Sgt Carpenter, the battery cook Sgt, it was the experience of doing the primary job of the gunner he so ably provides for. And for the French hosts, it was the first time Canadian troops had used Mourmelon as a training area. It was also the first time, in the memory of the camp staff, that a battery had deployed in the



BSM Glen Armstrong fires the first round.

Mourmelon camp and fired over the town of Suippes to impact rounds into the old WW I battleground that forms part of the Suippes Training Area. But most of all, for the infantrymen who were present and saw the guns fire for the first time, it was an awakening to a power that until that time had deployed silently behind them.

2 RCHA



2 RCHA ACTIVITIES

Captain G. J. Oehring

When the 1970 Gunner was published, 2 RCHA was still committed to *Operation Ginger* in Ottawa. That operation lasted from 12 Oct 70 to 31 Dec 70. 2 RCHA was the first unit to be deployed and the last unit redeployed during the operation. This year, the unit event that ends the annual report is Exercise *Running Jump II* in Gagetown, N.B., 25 Sep to 15 Oct. Here's some of what happened in between.

EX MIDDLE WINTER I & II

These two exercises (need it be said?) were winter warfare schemes in, on top of, and beneath the twelve feet of snow that blessed Peta-wawa last winter. D Battery had a chance to prove the worth of the M113 family of vehicles in these conditions and F Battery learned how to cope with the crest problems created when a bulldozer moves said depth of snow for gun platforms. Elements of the regiment were on the ranges every week from New Years to Easter. Of course everyone once again learned that winter can be fun!

EX RAVEN LIFT

For this one, the Regiment had exclusive use of four CH113 Voyageurs from 450 Heavy Helicopter Squadron for one week. The eleven battery heli-deployments (in the snow again!) provided good opportunities to develop SOPs as well as a good working knowledge of chopper operations for all ranks who participated. The biggest lesson for some, learned very rapidly on the first deployment, was that gun positions, particularly in winter, require "maxi-maximum" preparation. The pilots also learned the significance of "Centre of Arc" when approaching "live" gun positions. However, by the end of the exercise all guns were accounted for, the Squadron still had four helicopters and the Regiment had some good SOPs.

EX PRIME TIME I

This early spring Practice Camp included deliberate (very) fire plans, the last of which included a standard barrage (just in case some CRA should ask for one sometime). Some other finer points such as airburst registration were practised as well, all to good effect. Soon after the exercise, rumours were rampant in CAS that every Arty IG would have to spend at least one week with the Regiment --- to brush up on these finer points of course.



D Bty Command Post negotiates a snow bank during Ex Middle Winter.



F Bty Recce Party tug their toboggan - loaded equipment from a Voyager during Ex Raven Lift.

EX BIRD BARBARA

This was an AMF(L) exercise which gave D Battery the opportunity to renew it's friendship with Munsterlager and Trauen, Germany. Hamburg need not be mentioned.

EX POWER PLAY

This was a Combat Group exercise, the first formation exercise in Petawawa for several years. The scope was ambitious: an advance by foot through rugged terrain on two widely separated axes, the crossing of a major water obstacle and minefield, and a fire-power demonstration at the end. The guns came through well and once again impressed the other arms with the superb quality and flexibility of artillery communications. Probably the most significant event was the capture, by RHQ (!), of two enemy Ferrets with crews.

EX PRIME TIME II

A late spring Practice Camp. Q Bty, 5e RALC, from Valcartier joined us for this one, and again every conceivable variation of the gunnery problem was exercised. The first few days were spent firing for the Artillery Instructors Course and they left happy (happily?). The Mortar Platoons of 1 RCR and 3 RCR also joined us for the period and some good, realistic fire plans were executed.

EX RUNNING JUMP II

This exercise in Gagetown witnessed another air deployment by D Battery and a combined road and sea move of RHQ and X and Q Batteries, 5e RALC, who were placed under command. F Battery contributed largely to the control and umpire staff and helped augment manpower shortages in the other Batteries and RHQ. The end of the exercise witnessed a reunion with E Battery, including some regimental sports, smoker and a Mess dinner that was attended by every Gunner Officer in sight.

SOME MILITIA

Again the Petawawa gunners enjoyed a close relationship with the five Ontario Militia RCA Regiments. For every major exercise we were able to borrow a few Militia officers and NCOs to mutual advantage. This included the ten who were able to get to Germany with D Battery on *Bird Barbara*. Each Militia Regiment in turn was able to send a battery to Petawawa for several weekends during the year, excluding the two-week Summer Concentration. 2 RCHA support to the Militia also included the conduct of the Arty Tech, Senior NCO and Capt Qualifying Courses in July.

THE ODD CPX ...

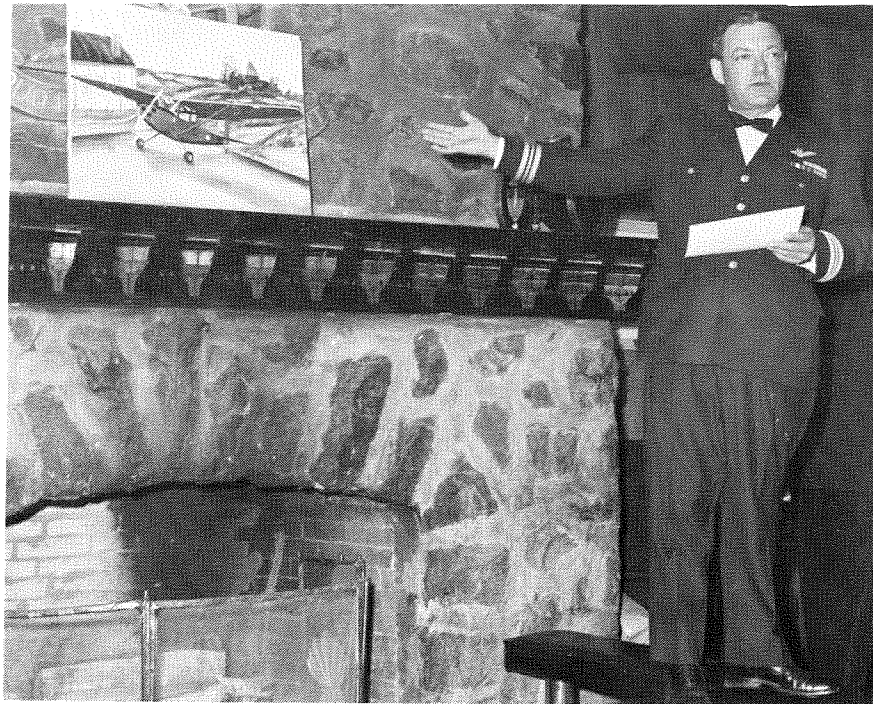
Good Heart, Board Green and *Bird Trail* all involved the Regiment in Feb - Apr and all included trips to Germany, Denmark or Norway for some officers and men. One month saw the CO in Norway, the RCPO and 10 in Denmark, the Adjutant in Norway shooting at mountains, and BC D Battery somewhere near Copenhagen.....



BGen Radley-Walters, Commander of 2 Combat Group, observes some live firing as part of his annual inspection.



On behalf of the 2 RCHA officers serving in Gagetown, Maj JA Cotter presents LCol DW Dawes and the Petawawa officers with a silver replica of the M 109.



On 1 April 1971, the Air OP Troop became part of 427 Squadron. Maj Don Foster presents an oil painting to the 2 RCHA Officers' Mess to mark the occasion.

EXERCISE BIRD BARBARA

The ranges of Munster South in Northern Germany provided the location for this ACE Mobile Force (Land) Artillery exercise which proved once again that five batteries from five different countries, using four different languages and different procedures can indeed work successfully together. *Bird Barbara* was designed primarily to practice the co-ordinated fire and movement of the Force Artillery of AMF(L).

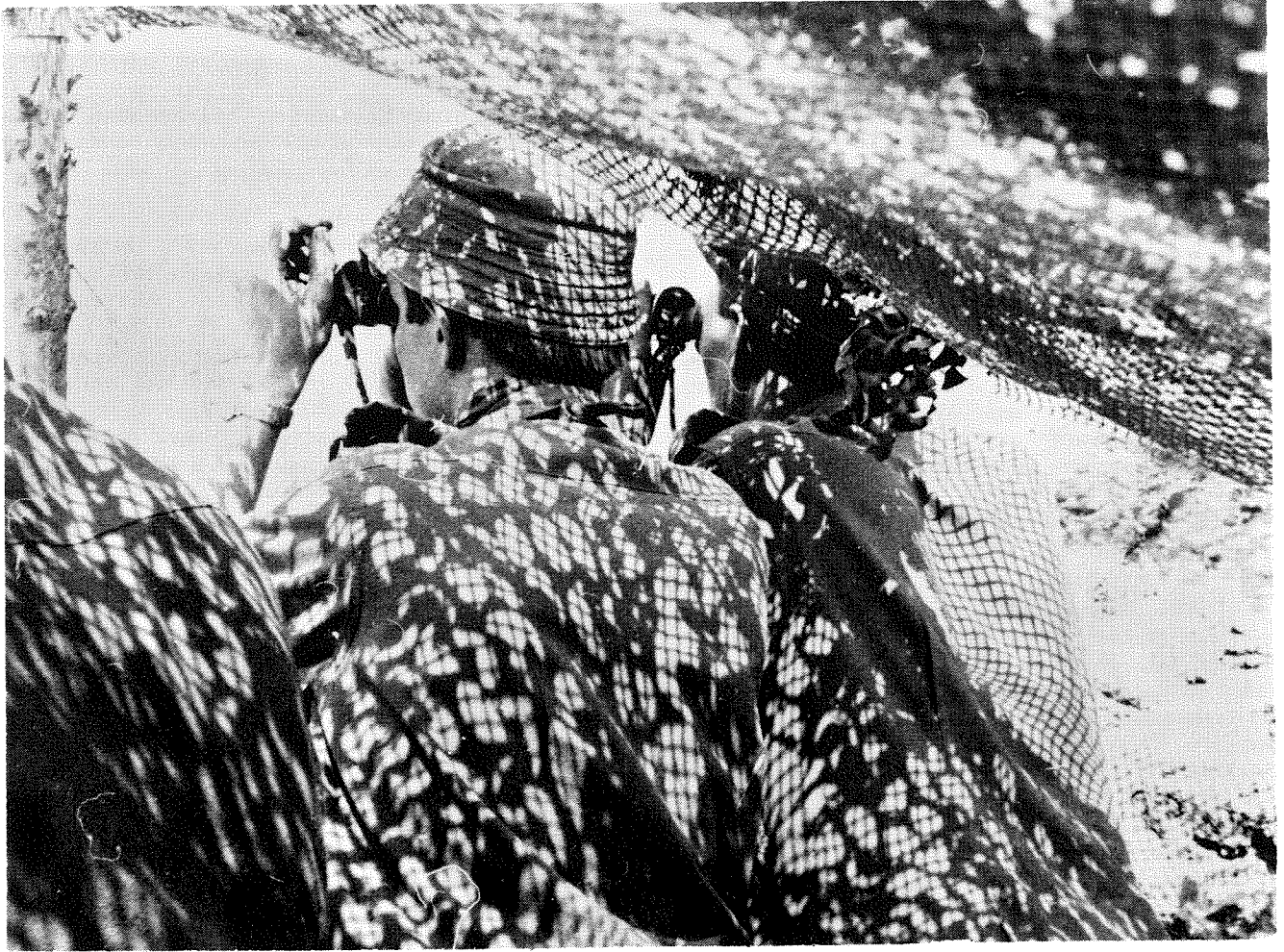
Participating in the exercise were D Battery, 2 RCHA from CFB Petawawa; 13 (Martinique 1809) Light Battery, RA; 2 Battery, 5 Artillery Battalion (Danish); 2 Battery, 235 Artillery Battalion (German); and 14 Gruppo Sousa Battery (Italian). Force Artillery

Headquarters was provided by 49 Regt RA. The Danish Battery was equipped with 155mm SP M109 Howitzers while the remainder employed the 105mm Pack Howitzer. English was the basic working language and the Force Artillery operated with a common Standard Operation Procedure.

Prior to the exercise, D Battery spent several weeks in preparatory training in Petawawa using the AMF(L) Arty SOP. This training included Command Post and communications exercises, dry and live firing exercises and familiarizing drivers with European rules of the road. Meanwhile the BK, Capt L.A. Branum, was putting in many hours preparing all the administrative details entailed by an overseas move.



A Bundeswehr Huey helicopter participating in a fire and movement exercise.



Capt Hugh Mundell and Sgt Bruce Murray in their OP on the Munster ranges.

The advance party, consisting of 14 all ranks, flew by Boeing 707 on 15 April. The main body of the Battery began the move by road from Petawawa to Ottawa on 20 April. From CFB Uplands, the men and equipment were flown by C130 Hercules to Celle, Germany. In all, the deployment consisted of seventeen C130 chalks flown on rotation from 21 to 28 April. The long 14 hour flight was followed by another road move of 40 Km to Lager Trauen where the Force was camped for the duration of the exercise. Vehicles and equipment that could not be airlifted from Canada because of insufficient aircraft chalks were supplied by CF Europe and CFB Soest. For the exercise, D Battery, commanded by Maj E.L. Schrader, consisted of 152 officers and men, six 105mm Pack Howitzers, 15 tracked vehicles and 21 wheeled vehicles. Personnel included ten officers and men from the RCA Militia on contact training, one Instructor in Gunnery, Capt R.L. O'Bannion, from the Combat Arms School, and four drivers and a cook from CF Europe.

From 28 April to 4 May preparation for the exercise continued with FOO parties and gun-end officers doing reconnaissance of their respective areas and familiarizing themselves with the very stringent Range Safety regulations. There was also time to complete the battle efficiency test, — the famed "Ten-Miler".

The exercise proper was divided into three phases; first, a period of dry deployments from 4 to 8 May, second, a 36 hour live Firing Exercise under the direction of Force Arty HQ on 11-12 May, and finally the AMF(L) Commander's Live Firing Exercise on 13-14 May. The first phase of the Exercise included practice in deploying the guns and personnel by helicopter. Two types of helicopters were used, the German UH1D (Huey) and the British Wessex. Although the Battery had previously worked with Voyager helicopters in this capacity, the Huey and Wessex emphasized the tremendous versatility and speed of movement of the pack howitzer.

The second phase of the exercise saw the FOO parties of one nation calling for fire from the battery of another using the AMF(L) SOP. In this phase, Force Arty HQ was practiced in translating and passing fire orders. Adjustment procedures and Fire Discipline were also practiced. This is basic gunnery but it brought to light some minor problem areas in communications and procedures which were quickly corrected. Differences in radio equipment necessitated frequent tuning to maintain communications. Another problem was that of illuminating ammunition. The candle of one type of round burns for only about one quarter of the period of that of the Canadian round, and consequently a different adjustment procedure is required when co-ordinating illuminating and HE rounds. Also during this phase the Battery was visited by the CO 2 RCHA LCol W.R. Dawes, and the RSM, CWO J.S. Richmond.

The setting for the third phase of the exercise was that elements of an Orangeland Airborne Division (not Fantasia — a welcome change!) had landed on the impact area of the range. The AMF(L) was tasked to destroy these elements. Each AMF(L) Battalion Group Commander (in our case, LCol Cheriton, CO 3 RCR) was given a tactical problem. The Battalion Commanders, with their affiliated Battery Commander, produced a fire plan utilizing all of Force Arty. This was aimed at co-ordinating the fire of all of the batteries. The aim was in

fact accomplished as each fire plan was executed as the Battalion Commanders had intended, a real achievement in view of the languages involved and the different ideas on fire planning that were encountered.

During the exercise, not all of the time was spent in the field. Each Battery's Officer Cadre hosted a "cocktail party" (notice the quotation marks!) as did Force Arty HQ. On 9 May a sports afternoon was held with each Battery competing in team handball, soccer, tug of war and volleyball. The Germans were the overall winners. 4 Field Regt RA also hosted the Junior Ranks of D Battery for two evenings of fun and sports at Dennis Barracks in Munster. Many from the Battery used their spare time to visit points of interest in Northern Germany, with A Troop taking the lead in tours.

Redeployment to Canada began on 19 May, with the main body complete in Petawawa on 24 May followed by the rear party on 28 May. The exercise was very profitable at all levels as is evidenced by a comment directed to the Battery by LCol Body, The Force Artillery Officer: "There is no doubt that the exercise was a great success. —It is easy to order a move or point out a target; it is much more difficult to reach the right place quickly or to hit the target. Nevertheless, you always managed it."

BEGINNINGS

On 20 October 1871, the first of Canada's regular armed forces came into being when Militia General Order 24 authorized the formation of two batteries of garrison artillery to provide for the "care, protection and maintenance of forts, magazines, armaments and warlike stores recently or about to be handed over to the Canadian government in the provinces of Ontario and Quebec". "A" and "B" Batteries, stationed at Kingston and Quebec respectively, also functioned as Schools of Gunnery.

On 10 August 1883, with the authorization of "C" Battery, the Regiment of Canadian Artillery came into being.

On 24 May 1893, the Regiment was granted the distinction "Royal" and a few months later, was reorganized into two batteries of Royal Canadian Field Artillery and two companies of Royal Canadian Garrison Artillery. With this change, "C" Battery became temporarily dormant.

On 1 September 1905, the Royal Canadian Field Artillery was formed into the Royal Canadian Horse Artillery. These, the original batteries of permanent force artillery, are continued today as "A", "B" and "C" Batteries of 1 RCHA.

THOUGHTS FOR EXCHANGE

Captain M. C. Tinniswood, RHA

My latin master at school was keen on quotations. I remember one in particular – “*Tempora mutanto et nos mutamur in illis*” – which for the non-classical minded translates – “*Times change and we must change with them*”. I think this sums up my year with 2nd Regiment, Royal Canadian Horse Artillery at Petawawa.

I had met Canadian Gunners before, when my Regiment was involved in the AMF role in England. My most vivid memory of them was at an AMF(L) guest night. What struck me, in particular, on that evening was that although the uniforms were different and the pay difference was staggering we were all essentially Gunners. It was not unnatural, therefore, to assume that on my posting to 2 RCHA I would have little difficulty in adapting to my new environment. I suppose that now I have mastered the vernacular and use such household words as “garbage” instead of “rubbish” and “gas” instead of “petrol”. I may be deemed, at least, a colloquially-naturalized Canadian. In fact, from the outset, it was never difficult to adapt to the change in the face of a constantly generous welcome.

From the purely military standpoint I find many differences between the British and Canadian *modus operandi*. What is difficult to grasp is that although the framework of operation is essentially the same (although on occasions more British than the British) there are differences in approach which are difficult to grasp because of their apparent sameness. Herein lies the danger of presumption without research. This fact has necessitated some careful preparation and thought in such mundane tasks as Committees of Adjustment and matters concerning Military Law.

The most obvious difference struck me on arrival, and would have horrified me had I not been told in advance, was in the rank structure. It was most odd to be surrounded by Bombardiers wherever one went. In my opinion, this detracts from the executive structure and merely cheapens the position and command of all NCO ranks above. This is closely allied with another fundamental difference, and that is the very obvious trend towards the managerial system rather than command. In spite of this, the end-product or achievement is usually of a high order. The average age of the soldier is much higher in the Canadian Gunners than in the British, and this may be one of the reasons that the general attitude between the Other Ranks and Officers is very much more relaxed. On the social scene, too, I find a considerable difference in approach. Formal functions tend to be very much more formal than I would have expected, to the extent of being formal for formality's sake. On the

other hand, informal functions seem to be very much more informal. It is difficult to adjust to these different approaches but I hasten to add that there are many ways of achieving anything and neither one nor the other is necessarily the better. When all is said, it is not so much the manner in which an achievement is made but the achievement itself and its effect that is important – “so many men – so many opinions” as Terence said.

Generally, I do not think I have been under-employed. On occasions one could have done with a 28 hour day. Nevertheless, it has been both an interesting and rewarding experience during which time I have managed to cover a lot of ground both literally and metaphorically. What has struck me most about the regiment is the ability of the Canadian Gunner to “keep his cool” and produce results in the face of apparently impossible odds. This has been particularly evident in F Battery where the constant changes of men and equipment and the circumstances surrounding its existence are unusual.*

Of Canada herself my impression, too, has been one of change; environmentally, militarily, politically and climatically. It is interesting for me to note that, were it feasible, one could place the British Isles in the Province of Ontario several times and still have some square miles left over. The vast barren wastes of Northern Canada have in their emptiness a beauty peculiar to themselves. In every Province one can find complete changes of environment and climate which is particularly impressive to me as an inhabitant of a relatively small island. Militarily, of course, there has been dynamic change. One hopes that innovation will become improvement. Politically, my impression is of a bouncing young country looking for an identity. One hopes that the vast potential will prove itself economical in the development of national identity and achievement. Climatically, there can be few countries with such diverse conditions. In Petawawa, alone, over a four month period a temperature variation of 150 degrees is perfect condition for Messenger's ideal soldier, who must be capable of “withstanding summer's scorching heat and winter's freezing cold”.

Today the key for achievement in such pressurized society is surely the ability to adapt to change. I believe that Canada has more potential for adaptation than most.

*Ed note – F Battery is officially supernumerary, but has done every task from AMF(L) to *Operation Ginger* in its year in Petawawa.

THE ODIN COMPUTER SYSTEM

Lieutenant C.R. Anderson

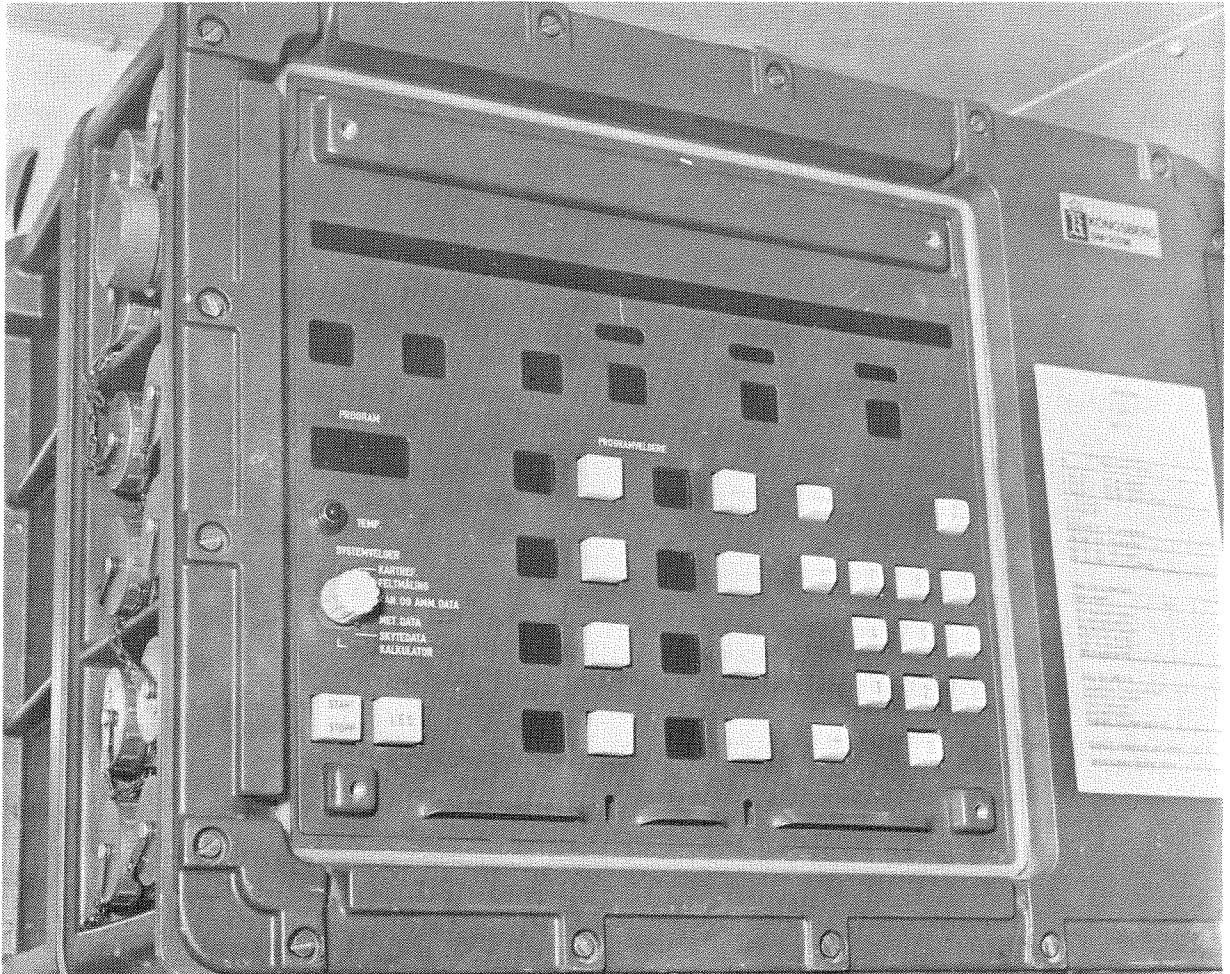
"Bureaucracies are well suited to tasks that require masses of moderately educated men to perform routine operations, and, no doubt, some such operations will continue to be performed by men in the future, yet it is precisely such tasks that the computer and automated equipment do far better than man."

— Alvin Toffler

In March 1971 2 RCHA conducted firing trials on the Odin Computer System which includes a general purpose computer, a laser range finder and a muzzle velocity analyser. Members of the Regiment were very impressed with all three pieces of equipment and in general consider the Odin System to be superior to contemporary British and US designs. The following paragraphs are a layman's attempt to describe the system in language that a GPO might understand.

The Odin System was designed by Norwegian engineers in close consultation with Norwegian gunners to automate the manual computation system now in use by the Royal Norwegian Artillery. The Norwegian system, incidently, is very similar to the Canadian.

The Odin is based on the Norwegian SM-3 general purpose computer, an integrated circuit type. The SM-3 has a basic memory of 16,384



The Norwegian SM-3 general purpose computer.

words each of 16 bits with a capability of expansion to 65,536 words. The SM-3 is a small machine slightly over two feet in width, 18½ inches high and 15½ inches deep. The weight is approximately 200 lbs including power cable, and the general lay-out can be seen in Fig. 1 below.

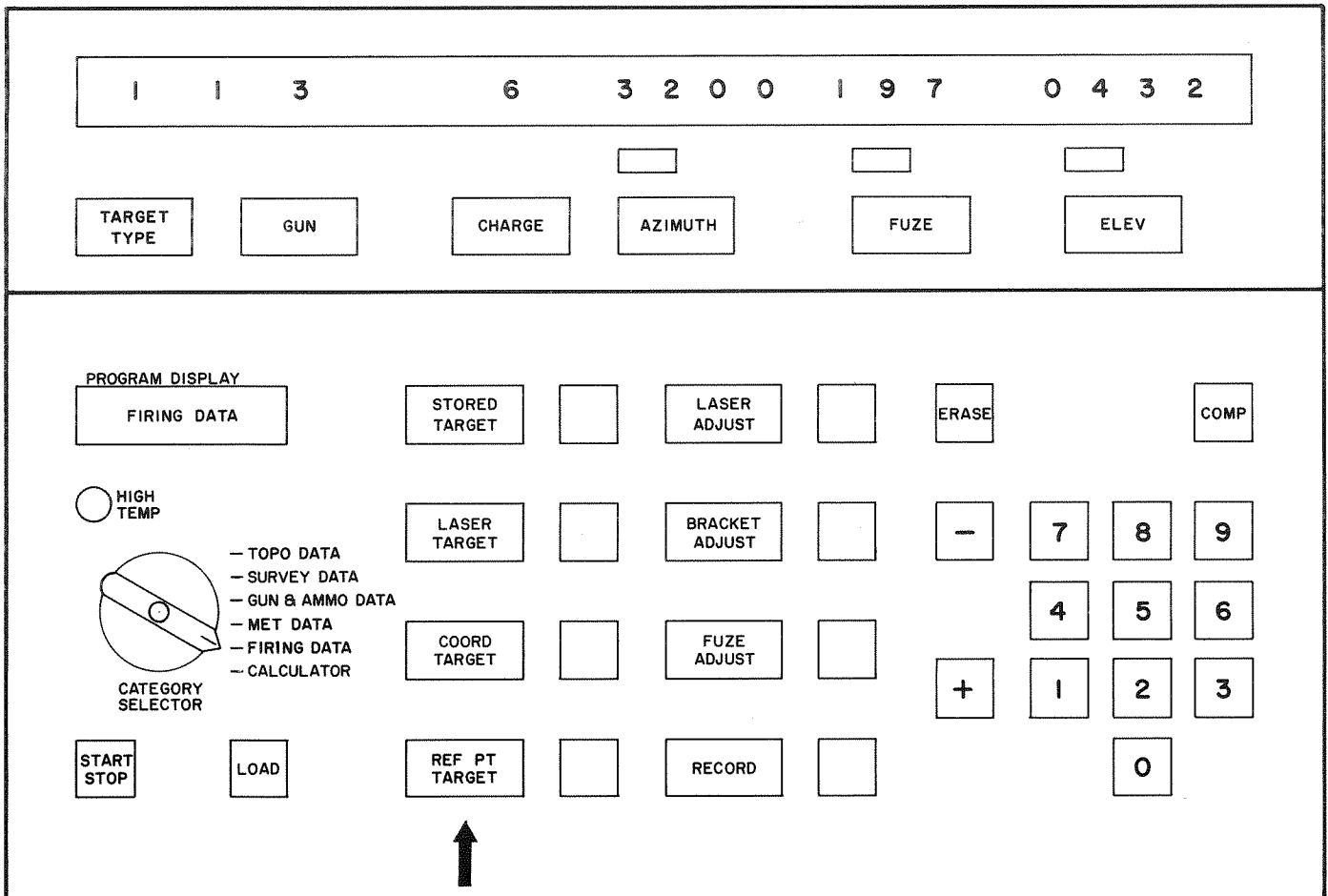
In Fig. 1 the computer is shown equipped with the Field Artillery Panel which includes the Artillery program. In this configuration there is no add-on hardware required with the exception of a vehicle mounting kit. The Odin operates on 24 volts DC with a power consumption of 350 watts per hour and can, therefore, be operated from an unmodified standard vehicle. The system operates through a temperature range of -40 to 55° C.

The Field Artillery Panel was designed with the operator in mind and ease of operation a paramount consideration. Because over 60 different inputs are required in the computation of firing data, Norwegian engineers decided not to employ a matrix of the FADAC type because of the slowness of entry and liability of operator error. Instead, in

the Odin system, all problems are grouped according to category and each category requires only up to eight inputs by the operator which are displayed for a visual check and may be corrected if erroneous information has been entered.

An attempt will now be made to describe how the computer solves the typical gunnery problems. Refer to Fig. 2. Note the category selector switch shown in the lower left hand corner.

- a. On arrival in the battery area the category selector switch would be set to the top position (topographical data). The co-ordinates of troop centres, OPs and the gun lay-out would be entered as would crest clearance data, safety zone data and grid. The computer will accept locations for nine troop centres, three different calibers, 36 OPs, 100 BPs, 10 safety zones and five obstacle (crest clearance) sectors. It is not yet programmed for the L5.



The Field Artillery Panel

- b. If survey data had to be calculated the category selector switch would be set to the next lower position, survey data. The operator may now carry out all common survey computations such as triangulation, trilateration, traverse resection and transformation of co-ordinates. As the category selector switch is changed, the information shown in the lighted windows at Fig. 2 would also change, and, for example, what is shown as Stored Target in Fig. 2 might become distance on a traverse leg. The category selector switch would then be switched to gun and ammunition data which permits the entry of muzzle velocity data for all charges and a ballistic constant (K) for each charge. The category selector switch could then be set to Met data which can be entered using the standard NATO format.
- c. Firing data is the next position for the category switch and is the one for which Fig. 2 is prepared. Targets can be engaged by any of four methods: stored target (recorded target), laser target (polar co-ordinates from the observer),

co-ordinates of target, or, with reference to a reference point or recorded target. This row of buttons is shown above the arrow on Fig. 2. Adjustment is carried out by sending new polar co-ordinates from the laser range finder or by normal target grid procedure.

The Odin is a very easy computer to operate. Artillery technicians of 2 RCHA were trained to perform all normal operations in about three hours. Maintenance appears to be simple and the hardware extremely rugged. Odin is fast and reliable, gun data being produced in about 10 seconds. Break-downs were few and simple to correct.

In summary, the Odin computer and its associated equipment seems to be ideally suited to the roles of the Royal Regiment of Canadian Artillery. Ultimately it could save us considerable training time and perhaps reduce the number of Artillery technicians required. Those of us in Petawawa who were exposed to the Odin computer sincerely hope that a computer system of this type will be procured in the very near future.

(A more complete article is contained in Edition 6/3 September 1971 of the Mobile Command News Letter)

INDICATING TARGETS BY THE SUPPORTED ARM

1. *The supported arm includes:*
 - a. *four fingers;*
 - b. *one thumb;*
 - c. *a hand;*
 - d. *a wrist; and*
 - e. *the lower arm up to but not including the elbow.*
2. *The method of support could be:*
 - a. *sling;*
 - b. *prop; or*
 - c. *any object upon which the arm could be supported.*
3. *Method of indication:*
 - a. *Rotate the body until the extended finger points to the target; or*
 - b. *Point extended finger at reference point, spread remaining fingers and wiggle pinky finger at the target.*

TACFIRE

Captain William W. Beverley, Jr.

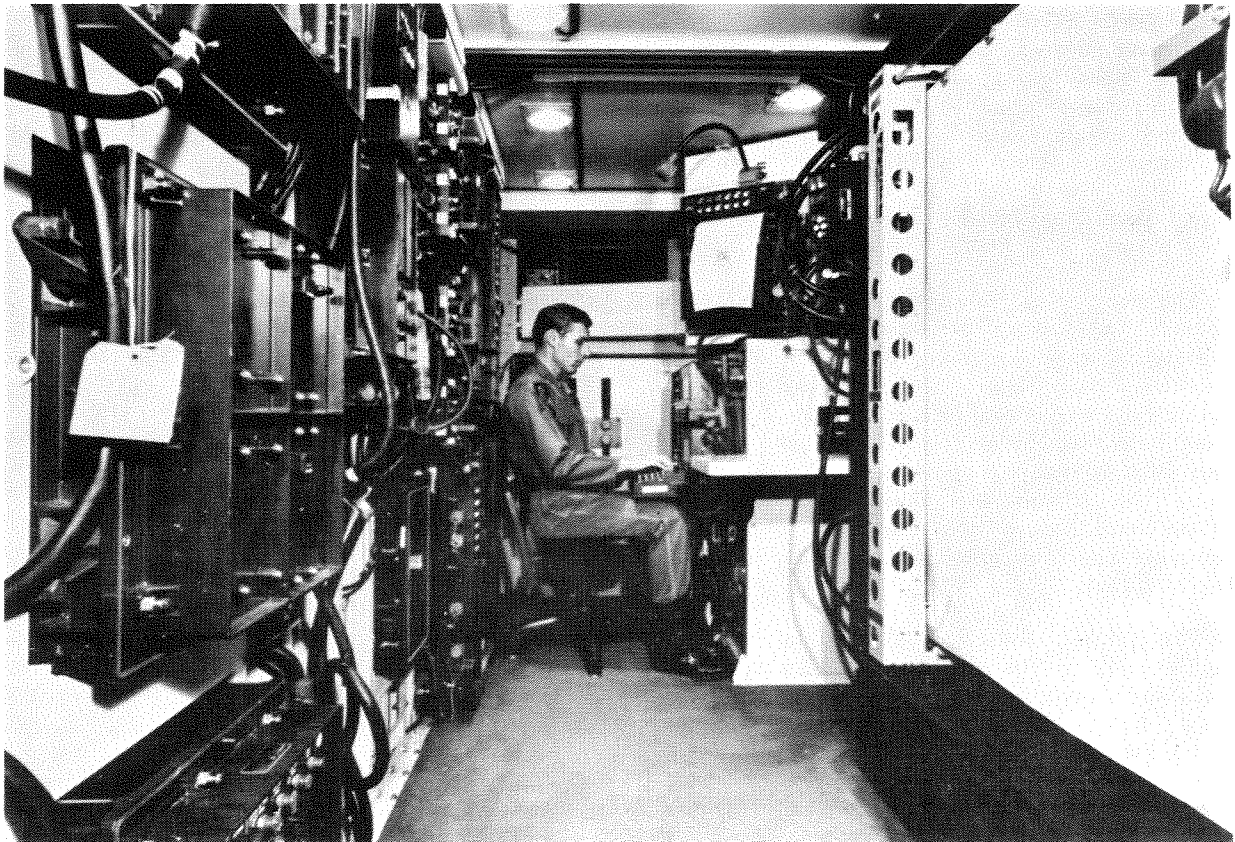
US Army

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Today, developments in modern warfare, its tactics and its equipment, have created new threats which the field artillery must counter if it is to maintain its dominant role on the battlefield. Highly mobile enemy forces, with sophisticated equipment to locate and destroy forward observers and weapons, demand quick and accurate fires from the field artillery. The weapons and ammunition are there. Modern artillery has remarkable accuracy, range and rate of fire; what has failed to keep pace are the fire planning and fire direction processes, which at present are not capable of responding with sufficient speed to meet the critical needs of the modern

battlefield. In addition, the volume of intelligence data collected and generated in a tactical situation has generally prohibited the timely and effective analysis, attack, or dissemination of intelligence targets or data. To correct this situation, TACFIRE (tactical fire direction system) has been developed.

TACFIRE is a tactical, automatic, data processing system with computer centers located at cannon field artillery battalion and division artillery levels. TACFIRE will assist the field artilleryman in many of his tasks with more speed, more accuracy, and with greater effect and economy than is possible



Interior of the S-280 shelter.

with currently used methods. TACFIRE will assume the time-consuming burdens of computations and data handling that are now done manually or manually with the help of FADAC.

The objective of TACFIRE is to increase the effectiveness of field artillery fire support through improved response, better and more rapid use of artillery target information, improved and faster fire support planning, and greater efficiency in the determination of fire capabilities and allocation of fire units to targets. TACFIRE automates the same field artillery techniques, procedures, and terminology that have been proven successful in manual systems.

TACFIRE functions are performed in a continuous process with a constant interface of functions as the situation dictates.

The ammunition and fire unit programs keep account of the fire unit status and the ammunition available to support those programs concerned with placing fire on enemy targets.

Preliminary target analysis, nuclear target analysis, nonnuclear fire planning, chemical target analysis, and fallout prediction programs will assist in fire support coordination. The purpose of the element programs is to assist in planning and coordinating conventional, nuclear, and chemical fire support and in analyzing all available fire support means. Preliminary target analysis assists the fire support coordination center in determining the best means to defeat a target. This program considers available Army, Navy, and Air Force fire support means and provides data for decisions to the fire support element.

The nuclear target analysis program selects all fire units which can defeat designated targets with available yields to achieve the required degree of damage without violation of given safety data. It produces data which describe the target, fire unit, yield, and height-of-burst combination for the most effective use of nuclear weapons. It will also produce a list of nuclear munitions required to destroy or neutralize a specified list of targets. This program provides input data for the nuclear schedule of targets.

The primary functions of the nuclear fire planning program are to match target, fire unit and weapon assignments and to create a nuclear schedule of targets. It will also prepare a list of contingent effects for targets and fire unit combination as specified. The computer transmits the nuclear schedule of targets and contingent damage effects upon command.

Chemical target analysis is performed for all chemical fire missions and for chemical fire planning. It produces the optimum choice of the fire unit, type of agent, and quantity necessary to achieve specified criteria.

The fire planning program provides for the selection of targets for an integrated fire plan. Fire plans will be produced in significantly less time and with improved accuracy and completeness over the present manual operation. The program assigns fire units, number of rounds, types of ammunition and fuzes, and the specific time each target is to be attacked. Planning is done in accordance with guidance stored in the computer and incorporates limitations imposed by boundaries, no-fire lines, fire coordination areas, air corridors, and the amount of ammunition available. As an example, the Div Arty computer can produce a nonnuclear fire plan for the attack of 150 targets by 30 fire units in fifteen minutes as compared to several hours required with manual methods used today.

The artillery target intelligence function at division artillery provides assistance to the S2 in all phases of the intelligence cycle—collection, evaluation, interpretation, and dissemination. The result of this process is a complete, current, and accurate target list available on command.

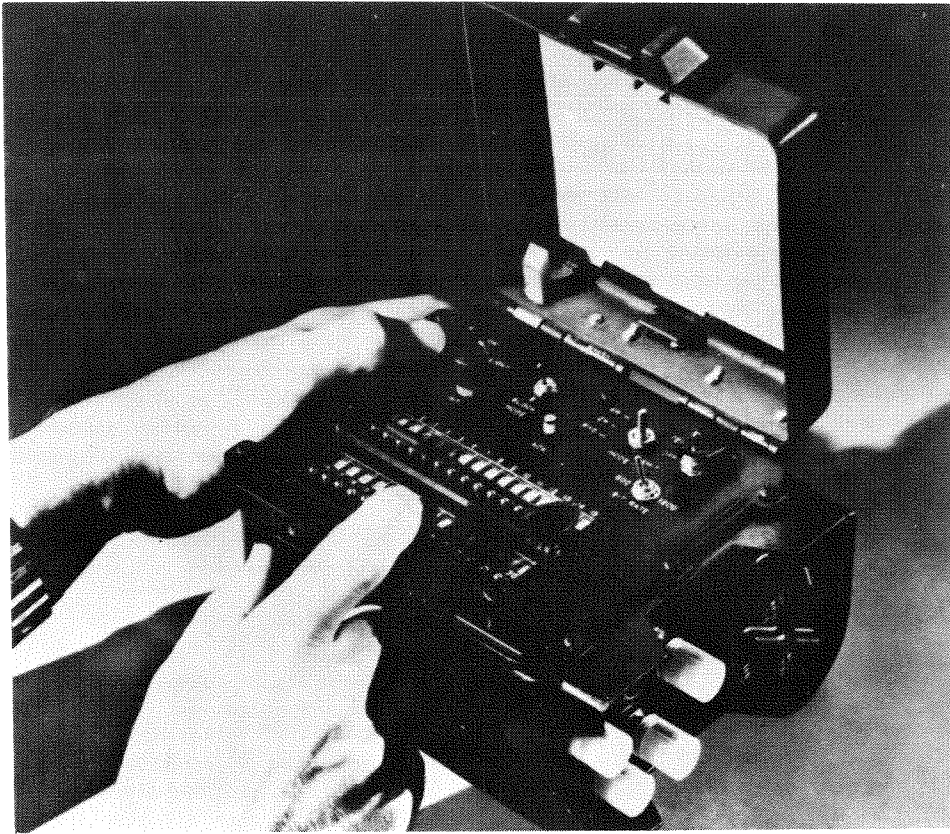
The tactical and technical fire control functions enable the artillery commander to direct fires on enemy targets in a rapid and efficient manner. The computer accepts fire mission requests and produces fire commands appropriate to the specified target.

The survey program provides timely information and processing for all operations of the survey information center of division artillery and survey parties of both division artillery and battalions. The function provides for rapid storage, retrieval and computation of survey data.

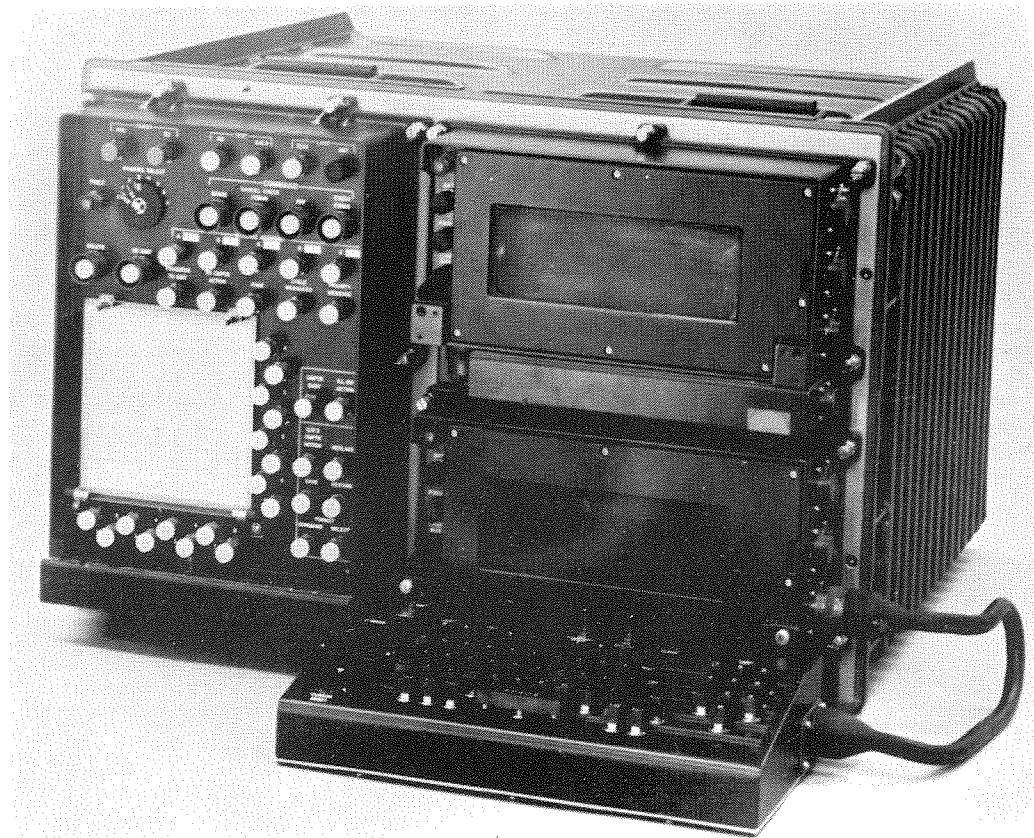
The meteorological data function is responsible for updating met messages and distributing met data as directed by the Div Arty fire direction officer.

The fallout prediction program receives nuclear sighting reports, receives prestrike fallout requests, validates sighting reports to confirm a strike, stores and applies meteorological data, and determines applicable fallout risks for an attack based upon existing parameters. It generates fallout prediction messages and an effective downwind message to allow units to evaluate their situation relative to a sighted burst or predicted burst.

As an illustration of how the TACFIRE system operates at battalion level, assume a forward observer has just transmitted a request for fire to the battalion FDC, which is housed in one S-280 shelter. The observer used a fixed format message entry device (FFMED), connected to his organic radios or telephone, to send the messages in coded digital form. At the battalion FDC, the request is authenticated, expanded and entered directly into the computer. The artillery control console (ACC) provides a visual presentation of firing data generated by the AN/GYK-12 computer plus the original



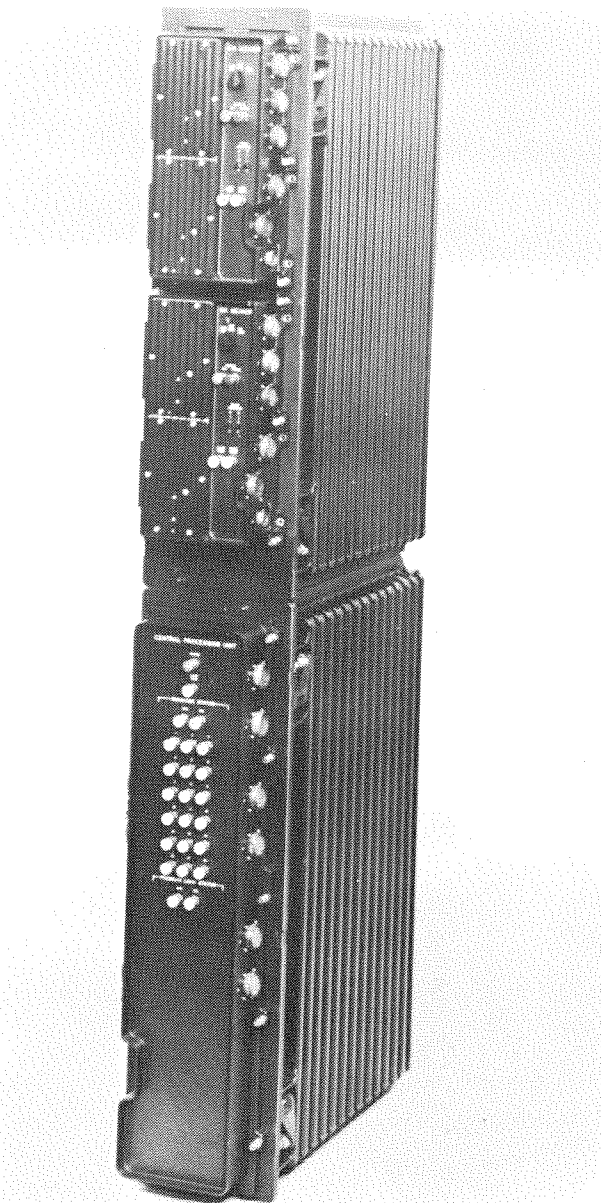
Fixed format message entry device (FFMED).



Artillery control console (ACC).

fire request, after the fire mission has been processed.

Also located in the battalion FDC is the digital plotter map (DPM), a 4-by-4 foot plotter for large-scale display of the tactical situation on an overlay or map, and an electronic line printer (ELP) that is used to provide a hard copy record of all incoming and outgoing messages. These devices give the FDO ready access to fire orders and commands for several missions, and allow him to monitor the situation, quickly establish priorities of targets during peak loads, and generally retain full control of the FDC operations. They also provide a complete hard copy record capability.



AN/GYK-12 computer.

Once the fire commands produced by the computer are reviewed by the FDO, the ACC operator activates a switch on the ACC to send the commands to the batteries, where they are printed on an electronic line printer of a battery display unit (BDU). The battery radiotelephone operator activates the ACKNOWLEDGE switch on the BDU to transmit a signal back to the battalion FDC. The battery executive officer then announces the fire commands to the guns from the hard copy furnished him by the BDU.

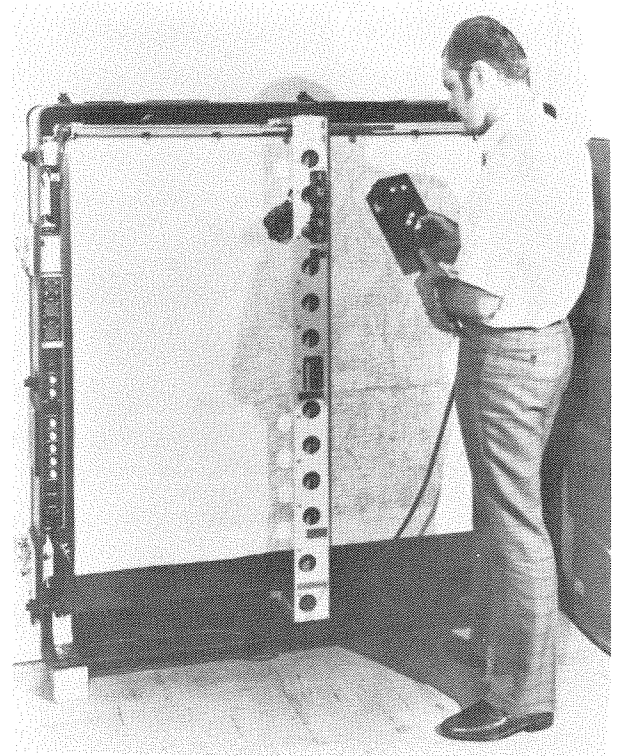
The speed at which these computer decisions are made will result in printed fire commands at the battery in less than 10 seconds from the time the call for fire is originated.

The TACFIRE computer center at division artillery is housed in two S-280 shelters because of additional equipment requirements. The division artillery equipment is identical to the battalion equipment but is supplemented with an additional memory drum, a second printer, and an electronic tactical display (ETD). The ETD provides a rapidly updated graphical display of the tactical situation. Data from the 4-by-4 foot digital plotter map can be expanded and displayed on this device. The S2 and the S3 may use this device independently or simultaneously to help accomplish their staff functions.

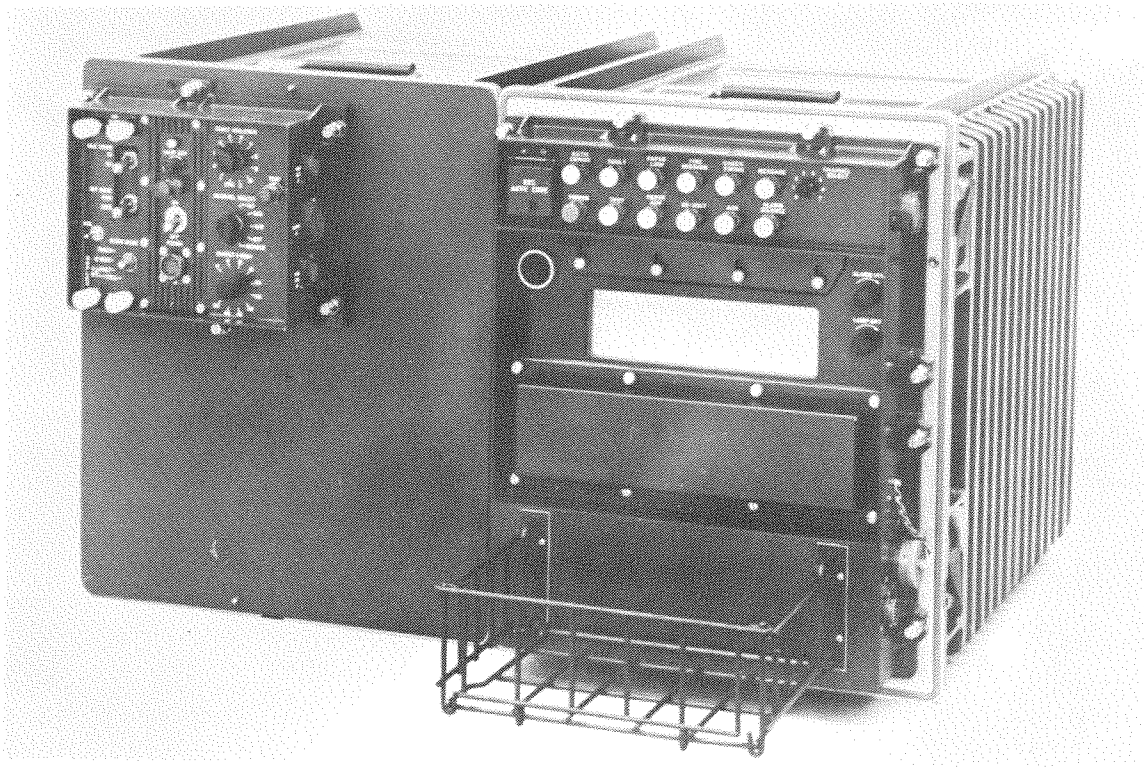
Unlike the fixed format message entry device, the variable format message entry device (VFMED) will provide two-way communications between users at the division, brigade, and battalion fire support element and to the missile battalion fire direction centers. It is similar to the BDU but has a display and edit scope and an alphanumeric keyboard to facilitate editing and composing messages. The VFMED provides an input/output capability not found in the BDU, for the BDU is an output device only.

A unique feature of the TACFIRE system is the maintenance concept for the system. A maintenance and diagnostic software routine checks the system on a scheduled basis when the computer is not busy. Any failure that occurs can be rapidly detected and isolated to a few cards through the use of built-in computer programs. Rapid fault isolation down to the specific card is facilitated by a built-in, handheld GO/NO-GO circuit card tester called a module test set (MTS). Operating personnel can locate and replace a faulty card and restore the system to normal operation in less than 10 minutes.

The US Army Field Artillery Board has conducted a manual/FADAC comparative service test which began on 14 December 1970 and was completed 30 April 1971. This test was conducted to measure the performance of a field artillery organization using the manual/FADAC system in accomplishing TACFIRE functions for later comparison with the performance of a field artillery organization equipped with TACFIRE. New equipment training for Board personnel scheduled to participate in the TACFIRE service engineer test (ET/ST) began 25 January 1971. The TACFIRE ET/ST is scheduled to begin on or about April 1972 and will last for approximately 10 months. The TACFIRE system will be fielded throughout the Army's field artillery units during the mid-1970's.



Digital plotter map (DPM).



Battery display unit (BDU).

E BTY CAS



E BATTERY EVENTS

In its first year of operation as an independent battery, E Battery has undergone many changes both in organization and personnel. Due to its heavy commitments to the Combat Arms School, the battery has also suffered during the growing and transition period of the School.

The battery has had quite a face-lift since one year ago. Many personnel have been posted overseas or to base. The Air OP Troop has become part of 422 Helicopter Squadron, and 'G' Troop was disbanded to help bring the other troops up to strength. Unfortunately, although the battery is approaching its allowable level of personnel, its commitments have increased instead of decreasing. This was inevitable as the Combat Arms School became more settled and started running more and more courses. Coordination of these tasks with the resources available, has now become the task of the Training Officer. As the battery now approaches its second year of Combat Arms School support it has a better knowledge of requirements and problems encountered. With this background, E Battery should fulfil its tasks in traditional Gunner style.

EX NIMROD CAPER III

The month of March saw some lucky souls leave some of the one hundred and fifty inches of snow for the more tropic climes of Port Antonio, Jamaica. Lt Fenton Hickey went along as a Platoon Commander in Alpha Company of 2 RCR while Lt Brian Brake was the Platoon Commander of "13" Platoon, a mixed bag of gunners, tankers, signallers and engineers.

Somehow '13' Platoon managed to come out of the Jungle Warfare School with top marks and all returned to Gagetown with tales and souvenirs.

OPENING OF PARLIAMENT

On 2 March, E Battery provided a hundred-man guard of honour under Major D.J. Walters for the opening of the forty-seventh Parliament of the Province of New Brunswick. The Late Wallace S. Bird, Lieutenant-Governor of the Province inspected the guard.

A fifteen gun salute was also fired on this occasion by E Battery. Lt Bernie Saunders commanded the salute troop.



The late Wallace S. Bird, Lieutenant Governor of New Brunswick, inspects the guard of honour.

AIR OP TROOP

The first of April marked the end of E Battery's Air OP Troop. The unit was formed as part of the 1st Regiment on September 2nd, 1961 with Major Ace Card as the first Air OP Troop Commander. Using the base sports field as its first airfield, the troop has continued to make use of the field in addition to its hangar space at Fredericton Airport. During its last year of operation, the troop was heavily tasked for photo-reconnaissance requirements for CAS and the Combat Training Centre.

Reviewing officer for the handover parade was Col H.E. Theobald MC, CD, Deputy Commander of Base Gagetown. Col Theobald then witnessed the official handover to 422 Sqn by Capt W.R. MacNeil to Major Norm Ramsey, CO of 422 Sqn. Capt G.F. Gower had the distinction of being the last Air OP Troop Commander.

Becoming part of 422 Sqn has not isolated the pilots from their Gunner background. Lew Cuppens has become the most notorious scrounger of fire missions in Gagetown history. The troop, or fixed wing flight, as it is now known also participated in the battery's fall gun camp.

As a parting gesture, Capt Gerry Gower, on behalf of all ranks, presented an oil painting of an L-19 taking off from the ranges. This presentation was made at a corr boil during gun camp and was accepted by Major Frank Barrett, CO E Bty. The picture now hangs in the battery office in the headquarters building.



Maj Norm Ramsey, CO of 422 Tac Hel Sqn, assumes custody of Air OP Troop from Capt Butch MacNeil.

CHANGE OF COMMAND

On the 23rd of June, E Battery bade farewell to Major D.J. Walters as he relinquished command to the new CO, Major N.H. Barrett. The reviewing officer was the Base Commander, BGen D.A. McAlpine, who took the salute as the battery marched past under Major Walters and rolled past under Major Barrett.

Following the parade, BGen McAlpine addressed the battery, congratulating it on its achievements since 2 RCHA left Gagetown and the support they had given their CO during the trials of reorganization and adjusting to a role largely concerned with supporting the Combat Arms School.

During the parade, Major Barrett fell out the previous 2IC, Captain W.R. (Butch) MacNeil, and fell in the new 2IC, Captain R.M. (Malcolm) Hyslop. Major Walters left the battery to attend the United States Army Command and General Staff College at Fort Leavenworth, Kansas. Captain MacNeil was posted to the Canadian Forces Land Command and Staff College at Kingston. Major Barrett came to the battery from CDS - DSD at CFHC and Captain Hyslop was posted from the Combat Arms School.

FALL GUN CAMP

September saw the battery get away from CAS commitments long enough to hold their own gun camp. Several unique features were incorporated as the battery exercised with the 2 RCR Mortar Platoon and the fixed wing flight of L-19's from 422 TAC HEL SQN.

The first week was largely taken up with competitions, annual classification and artillery familiarization for the Tankers of C Sqn 8 CH. Although D Troop had the best time of the day in the Quick Action Competition, C Troop won the Quick Action aggregate by the narrow margin of five points. Sgt McCavour of C Troop won the Direct Fire Competition. The Direct Fire Competition was unusual in that charge 7 could not be used and charge 3 was the only charge that could be used safely. Sgt McCavour and his detachment were presented with the 'Top Gun' pennant by the new Base Commander, BGen S.V. Radley-Walters.

The Base Commander was also out to watch the battery and C Sqn participate in a CFSP/BAT-TLE RUN. Unfortunately tropical storm *Idah* did not cooperate and the battery was only able to fire one trace before the weather socked in. It is hoped that we can continue and expand such training.

Moving all the way to the CLINVILLE ROAD the battery prepared for Exercise *Pistol Gun*. Five days and many rounds later, the battery found itself at the Lawfield Grandstand providing support for 2 RCR as all battalion officers came out to get in some practice at calling down fire.

With Exercise *Pistol Gun* finished, the battery went right into Exercise *Mobile Warrior*, the annual FMC demonstration for Staff College students. This year's audience was considerably larger than last year's, and included the Defence Minister, Donald Macdonald, and LGen Turcot, Commander of Mobile Command. The battery's portion of the exercise consisted of a battery deployment and Air OF shoot, battlefield illumination, and a fire-power demonstration. Following the exercise, four guns moved south to pulverize the position used for the company-in-the-defence demonstration.



Float-equipped L-19 takes off from Swan Lake.

CAS SUPPORT

Support for the many courses run by the Indirect Fire Company has constituted the majority of E Battery's taskings during the past year.

Throughout the year, Basic and Advanced Technicians Courses provide the bulk of training commitments. The fall sees a heavy demand on battery time by the Advanced Officers Course as they endlessly fire-plan their way up and down the Lawfield and Hersey target areas.

Other courses receiving E Battery support are the Artillery Instructors Officer Course, Pay Level 6A and 6B courses, and Artillery Air Observers course.

The summer months were heavily committed to support for the ROTP program. RCTP training in fact was the only artillery course run during the summer and many days were spent in support of Phases 2, 3 and 4.



The Gagetown land is rock-hard in winter, as Bdr Collins finds out while digging spade holes during CAS support.

US NATIONAL GUARD

During the month of July, the Gagetown ranges hosted the 1st Battalion 152nd Artillery Regiment of the Maine Army National Guard. The visit of the American gunners provided many an occasion for formal and informal social gatherings.

The highlight of the visit was a softball game between E Battery and their American counterparts. E Battery ran up an early 7 to 1 lead but had to hold on to earn a hard fought 7 to 6 victory. Following the game, all ranks gathered for a few refreshments and the presentation by Captain Malcolm Hyslop of a RCHA memorial plaque to the American Commander, Major Earl Adams.

During their stay in Gagetown, the battalion was visited by the Maine Governor, K.C. Curtis. He was greeted on his arrival at Base Gagetown by a thirteen-gun salute fired by E Battery under the command of Capt John Miller.

REGIMENTAL REUNION

Exercise *Running Jump 11*, Canada's largest military exercise since unification, provided an

opportunity for E Battery to carry on a little socializing with its parent unit and foster a sense of togetherness. A Regimental Sports Day had been planned but a change in flight schedules only permitted time for a softball game. The opening ball was thrown in by LCol Dawes, and D Battery went on to edge E Battery 6-5. Following the game, everyone retired to the Cambrai Club for a continuation of the previous night's Regimental Smoker. A Regimental Mess Dinner was held and was attended by all gunner officers on base, both on staff and on course. Unfortunately such occasions are only too brief and rare.

MILITIA ACTIVITY

The Battery provided instructional help for New Brunswick and Nova Scotia Militia units throughout the year. This was mostly weekend help but the 1st Field Regiment and the 84 Independent Battery from Halifax and Yarmouth managed to stay for a one-week gun camp and efficiency competition.

Following their tour of the ranges, twenty young militia soldiers served with E Battery during the summer and gained much valuable experience during the busy summer months.



C Troop CP crew takes time out for a coffee during the battlegroup exercise in April.

SPORTS

The nature of E Battery's role has not afforded its personnel the opportunity to participate fully in a comprehensive sports program on the base, but in those activities that the battery has participated, we have been remarkably successful.

In January, the battery Broomball team won the base championship by defeating 3 Service Battalion 2-1 in the final. This game earned the team the right to represent Gagetown in the Zone 7 & 8 Championships in Shearwater. Unfortunately the fates were not with the team on its out-of-province play.

In July, the battery softball team came on strong to win the base softball trophy. Finishing third in regular season play the team beat the first and second place teams (1 FD AMB and CAS) to earn another piece of silverware for the trophy cabinet.

One of the more unique contests that took place was the almost weekly broomball match between the officers and the men. However, somewhere along the line someone forgot to tell the officers about such necessities as broomball shoes, shin-pads, and brooms that weren't broken. At the end of many weeks of humiliation and sweat, the officers finally managed a tie at the end of the season.



"The Mean Bunch" - E Bty Broomball Team.

WORLD WAR II AND THE DEVELOPMENT OF SOVIET ARTILLERY TACTICS

Captain M.D. Maher

At a time when the artillery of other nations were consolidating their experiences of World War I and training their personnel in large-scale attacks, the early Red Army Officers visualized wars of manoeuvre with small mobile units and guerillas playing the dominant part. This was because the Czarist officers had been replaced by a new type of officer, often a peasant who was militarily naive. Despite Trotsky's efforts to continue the use of ex-Czarist officers as military technicians, Stalin, who supported the new group of officers, won out. The Soviet Army was placed on a territorial-militia basis with severe budgetary restrictions imposed. The army, and in particular, the artillery, suffered from an acute shortage of modern equipment and technicians.

During the next twenty years, there was very little military development except for the adoption of the tactics used by the Western powers in 1918. When Stalin came to power he realized the importance of artillery and the country's industry was given the task of producing more modern guns. One of his first tasks was to appoint Voronov his Chief of Artillery. Voronov, a gunner himself, set to work to try to update the tactical employment of Artillery. He was faced with a monumental task since most of the gunner officers were incapable of grasping even the most fundamental technical drills.

The Podgorodyne Artillery School was reorganized and the entrance requirements were made stricter. Gradually a new breed of gunner officer was produced, technically proficient and confident in his ability. Graduates, however, were few in number when the German invasion took place.

DEFEAT

At the outbreak of World War II, the Russian Artillery found itself with excellent guns, but with obsolete means of bringing fire to bear in fast moving situations. The emphasis previously placed on small mobile units left the Russians without any effective means of concentrating artillery fire. This was further aggravated by the lack of communications equipment. Only on occasions were batteries able to bracket the enemy and even then little damage was done because insufficient guns and ammunition were used.

Voronov's training methods were vindicated during the early period of the war when, during the defence of the Dneiper River, personnel from the Artillery School were given control of the Soviet Artillery. Keeping the river crossings under accur-

ate fire, the guns took a heavy toll of the attackers. This stemmed the tide locally but elsewhere troops were being surrounded and annihilated, resulting in the loss of large quantities of the best of the Russian Artillery.

The artillery was blamed for the defeats during this period. The other arms claimed that they would have been successful had they received the necessary fire support. Despite this criticism, Stalin retained faith in his Chief of Artillery and backed his recommendations for reorganization.

REORGANIZATION

Voronov now had the authority to implement his plan of reorganization. The overall aim of Voronov's plan was to make the Soviet Artillery comparable to that of the German Army. This was a long range plan to increase the artillery throughout the army, establishing a general reserve and adopting the German system of Artillery control. This system was based on retaining control at the highest level of command possible to ensure that the artillery would not be allotted piecemeal to any specific operation. Very early, during this buildup of the massive reserves of artillery, it became apparent that, in order to supply and administer this multitude of regiments and brigades, large artillery organizations would have to be created. Thus artillery divisions and later artillery corps were formed. All of this was going to take considerable time; time to train personnel, to manufacture communications equipment and to manufacture guns and ammunition. Time was one commodity the Soviets lacked and with the Germans rapidly approaching Moscow, Voronov initiated an interim plan. This interim plan had to be capable of overcoming the major problems facing the Soviet artillery: the lack of trained personnel; the lack of guns and communications equipment; and the inability to concentrate effective fire. Until the new methods could be learned, Voronov put the guns up front where the gunners could see and hit the enemy.

A combination of circumstances helped to make the initial use of guns, in the direct fire role, a success. Most of the German troops in the area around Moscow were Panzers, yet the swampy terrain limited their areas of operations. Consequently the guns destroyed great numbers of tanks. The lessons learned in the use of direct fire artillery became part of the Soviet Artillery tactical doctrine. In fact, Russian tacticians developed this concept until a great portion of their artillery was used in this manner.

The success of the direct fire use of guns was partially attributable to the weapon used. The Soviet's 76mm gun, discarded by the West in the '30's, had a high muzzle velocity and was ideal against tanks. Its light weight made it easy to move into anti-tank positions and, with the Russian's skill at camouflage, difficult to observe. This skill at camouflage appears to be a natural ability of the Russian soldier and had been enhanced during the training in guerilla tactics during the early '30's.

Perhaps the most significant factor influencing the decision to retain the direct fire gun was its economy of ammunition which compensated for the heavy ammunition expenditure by the indirect artillery. Furthermore, the use of individual guns saved on communications equipment at a time when this equipment was in short supply.

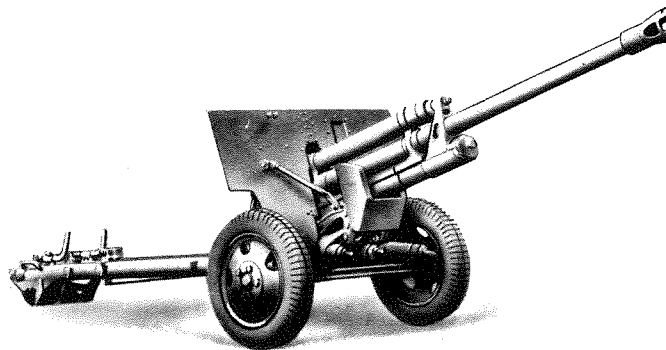
Voronov did not stop at direct fire guns. He convinced Stalin that vast numbers of artillery units were required. To get more weapons faster, it was decided to manufacture mortars. The 120mm mortar was adopted as standard and Stalin created a government ministry to supervise the production of this weapon. Generally, these weapons were used to form mortar battalions, but some were made organic to the infantry units. However, all were manned by artillery personnel.

Gradually, as the war progressed, the basis for the tactical employment of the artillery was evolved.

TACTICAL EMPLOYMENT

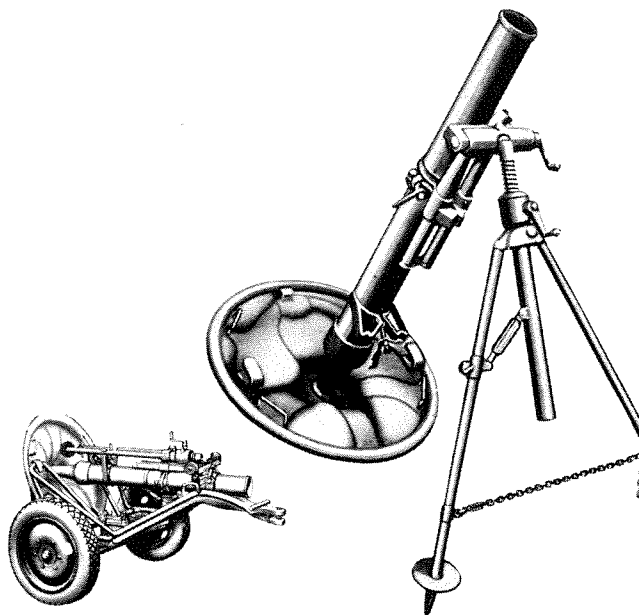
During the attack phase the tactical control of the artillery varied. The fire plan was drawn up by the army Artillery commander in minute detail. It usually prescribed the maximum rates for all guns for the first three to five minutes in order to inflict casualties by the use of massive surprise fire. Next, precision fire was placed on individual weapons to destroy them. The precision fire was seldom precise but with a large number of targets being fired upon, some were destroyed. During this period of the fire plan, the fire was suddenly changed to high-volume area fire to inflict casualties and prevent enemy activity. In the final few minutes of the fire plan, the maximum rate was again used, supplemented by the fire of tanks and direct fire guns. On occasion the direct fire guns were used to follow immediately behind the assaulting troops to be used against counter attacks. This avoided the necessity of pre-planning DF's which was beyond the capability of the Russian Artillery.

This fire plan usually called for a rolling barrage up to the second line of trenches, where it lifted on signal and travelled to the third line.



The 76 mm Anti-Tank gun, Model 42.

Weight of shell	13.7 lbs
Maximum range	13,000 metres
Armour penetration at 300 metres	4.3 ins
Weight in action	2,455 lbs



Travelling position.

The 120 mm Mortar, Model 1938.

Weight in action	578 lbs
Weight travelling	1,058 lbs
Bomb weight	35 lbs
Minimum range	450 metres
Maximum range	5,600 metres
Maximum rate of fire	12 rpm

Certain strong points might be kept under artillery fire, while being bypassed. The fire continued until the point was destroyed or the fire lifted on signal from the following waves of infantry.

Once the attack started, the artillery control reverted to normal commanders, but this was normally done on a displacement schedule.

After the attack had been completed, much of the artillery was brought back under higher control for use in defensive fire tasks. However, this consolidation of the defensive fire plan took considerable time and therefore there was a great requirement for direct fire guns to give the necessary protection against counter-attacks.

This methodical preparation was well suited to the Russian mentality and its effectiveness was proven throughout the war.

As the war progressed, one failing in Voronov's plan became apparent. Due to the rapid expansion of the artillery, there were not enough educated people available who could be rapidly trained in the new techniques. Thus, the artillery depended on substitutes. Direct fire guns, simplified mortar batteries, elaborate preplanned task tables and the massive expenditure of ammunition took the place of flexible fire. The Russian system was incapable of shifting fire rapidly and accurately to meet changes in the situation. This was mainly due to an inefficient observation system. This system required the battery commander to establish his OP in such a position that he could see the battalion base point and also as much of his battery's area of responsibility as possible. This usually meant he was established some distance from the front lines and would have to establish additional OPs forward and to the flanks. All orders from these sub OPs were directed to the battery commander, who sent commands to the battery. Although this concept was taught, the number of personnel available and the fact that the OPs had to be manned on a 24 hour basis, made it unuseable.

Once the battalion base point had been registered, all future engagements were based on shifts from this point. This method proved compatible with the extent of training of the artillery during the war but has gradually been replaced.

POST-WAR DEVELOPMENT

Since the war, the Soviets have been training their personnel in gunnery techniques comparable to those being used by the Western powers. This is due to the increased number of officers graduating from the service schools and the increased proficiency of the others gained through war experience. However, it was not until the

post-1950 period that the Soviet Artillery was capable of conducting the forward observation methods as understood and used by the Western Powers.

One interesting fact of their observation methods is the use of bilateral or cross observation. This is used mainly for the adjustment of heavy weapons due to the importance of saving ammunition. However, this method is slow and requires considerable pre-planning.

One of the main drawbacks to the adoption of more flexible methods of fire control was the lack of communications equipment. This was given a high priority in the post-war period with the artillery receiving the bulk of the sets. Once this problem had been solved, the Soviet Artillery was capable of performing most of the fire control techniques as used by the Western powers. Furthermore, the Soviets recognized the possibilities of using radar in fire control and now employ this method to a great extent.

CONCLUSION

It can be seen that the Soviet Artillery is a force to be reckoned with. Although its methods, during the late '40's were based, due to necessity, on the use of direct fire guns, massive artillery bombardment prior to an attack, and the use of many guns, it made great advances in the following decade.

It is extremely unlikely that any of the factors which contributed to its success, during the Second World War, will be done away with. In the post-50 period these methods were continued, but with greater flexibility due to better trained personnel and better equipment. It is believed that the Soviets plan to employ one-fourth of the artillery in direct fire roles. In 1946, Colonel General Chikisov stated that attacking troops should normally have 30 of these guns per mile of attack front, i.e. one every 60 yards.

The Soviet Artillery has reached a standard of efficiency comparable to Western artillery and when one considers that they have vast numbers of weapons available, it can be seen how important a part they could play on a future battlefield.

Stalin frequently emphasized that artillery is the "God of War" and the Soviet press has made this an accepted truism throughout the country. Artillery Day is celebrated annually with the thunder of guns and the artillery is called "the principal shock force" and "the primary striking force" of the Soviet Army.

THE SHRAPNEL ROUND: DEVELOPMENT AND DEMISE

Captain L. T. B. Mintz

The development of artillery to the modern day has been the work of centuries. During that time countless ingenious and brilliant discoveries were made, weapons produced and in turn became obsolete as the art became more advanced. One such invention which enjoyed popularity for approximately 150 years was the shrapnel round.

During the war between Spain and England 1779–1782 the need for an airburst round was realized. This came about for several reasons. The distance from the nearest English batteries to the Spanish lines was 1,700 to 2,000 yards at which range the English fire was ineffective. Many of the mortar shells burst at the muzzle from the heavy charges required at that range, and the shell that withstood the shock flew wildly. Many good shells were smothered in the sand of which the Spanish works were constructed; and round shot was useless against sand banks 22 feet high.

Case or grape were useless as they would only carry one-sixth of the distance, and round shot against handfulls of men working in isolated groups was equally valueless. A Captain Mercer, an infantry officer, suggested firing the 5.5 inch shell of the royal mortars with short fuzes, from

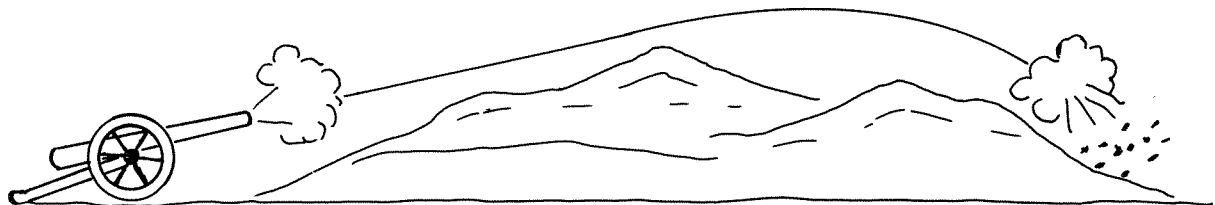
the 24-pounder guns which had the same calibre as the mortars. A trial was conducted on 25 Sep 1779 and the calculated fuzes, it was found, often burst the shell over the heads of the Spanish working parties. Mercer's proposal was immediately adopted.

These fuzes, which had been used since the middle of the 18th century, were made of wood, ribbed on the outside, with a core of powder. Each "rib" represented a fraction of time in the burning of the fuze, which was cut off at the rib marking the required fuze length.

Mercer's plan served the English well throughout the remainder of the war, although it was a makeshift idea and possessed several weak points, the main one being the small number of fragments and the inability to direct them on to any particular point. The war with Spain proved that the English had no really effective weapons against troops beyond the range of case. This need was filled by Lt Henry Shrapnel, R.A., (later General) who invented a gun projectile in 1784 which he called "spherical case".



CASE OR GRAPE SHOT



SHRAPNEL SHELL

FIG 1

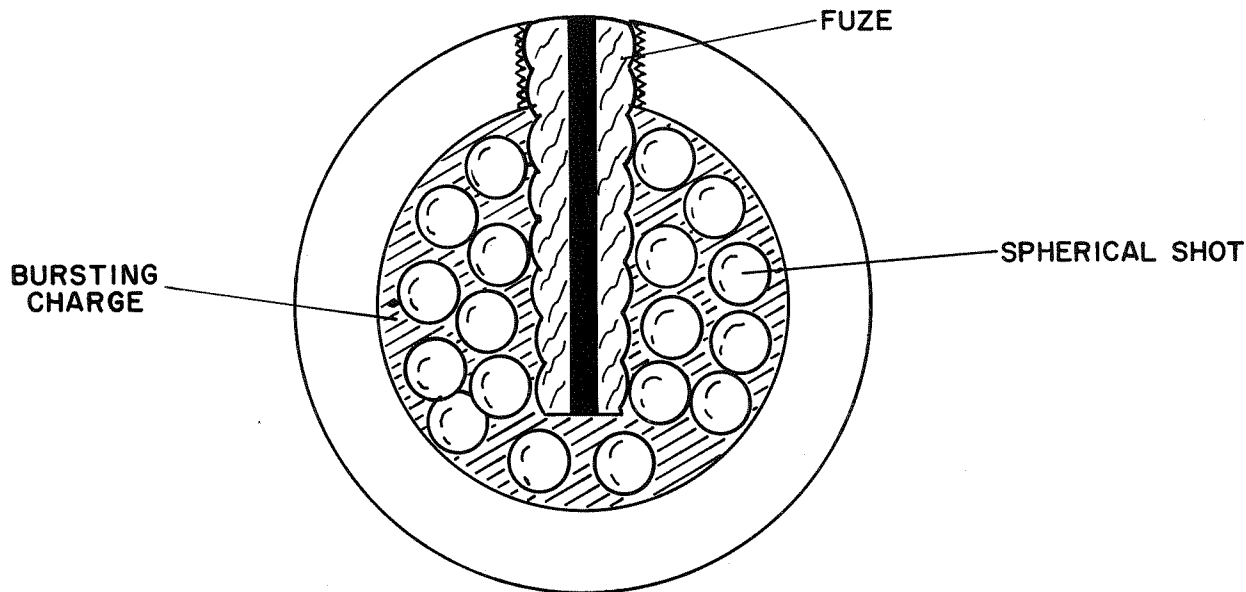


FIG 2 SHRAPNEL'S "SPHERICAL CASE"

This projectile was a hollow shell containing a fuze and spherical shot surrounding a small charge of powder. The fuze was calculated to ignite the charge above the target, the charge being just sufficient to open the shell. The small shot then continued in their original line of flight at a slightly increased velocity. The advantage of the small bursting charge was that it did not scatter the shot, thus ensuring that the maximum number hit the target.

After disregarding this invention during the following 20 years, the authorities began to take interest in it when England again faced war in 1804. A trial of Shrapnel's shell was then ordered and an Ordnance Committee decided in favour of it.

At this stage in the discussion of the shrapnel shell a major improvement in time fuzes of the period must be mentioned. Until the middle of the 19th century there was little or no improvement in time fuze construction (see Fig 2). The repeated failures of the shrapnel shell made an efficient time fuze very necessary and in 1849, Captain Boxer proposed his wooden fuze which fulfilled nearly all requirements. Improved during the next few years, it consisted of a wooden cone with a centre channel of powder and side channels filled with pistol powder. These side channels had radial holes bored into them at close intervals representing fractions of time. They were then stopped with clay and the whole fuze covered with paper and

numbered at the appropriate holes. To set the fuze, a hole was bored straight through to the centre channel at the required length of burning and the fuze then placed in the shell. On being fired the flash from the propellant charge passed over the whole of the shell (due to windage in the bore of the gun) and ignited the powder in the centre channel, which burned down until the bored hole was reached. The flash then passed down the side channel and so into the shell, exploding it.

In addition to his time fuze Boxer contributed another great improvement to the shrapnel shell, namely the insertion of a diaphragm which separated the bursting charge from the shot. This was a great improvement on the early patterns (see Fig 2) where the shot and powder were mingled together. This earlier system caused many premature bursts owing to the friction between powder, shot and shell, which of course could not occur with the introduction of the diaphragm.

With the advent of rifled canon about 1860 the shrapnel shell assumed an appearance which would be more familiar to the modern gunner.

By the beginning of World War I the body was a drawn steel tube with a solid base, and a diaphragm supported by a shoulder, closed the base cavity for the bursting charge of black powder. In many shrapnel shells this bursting charge was

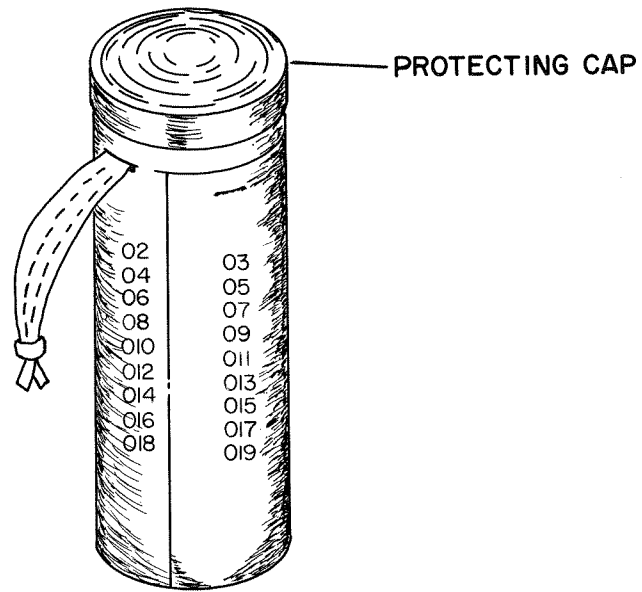


FIG 3 BOXER'S TIME FUZE

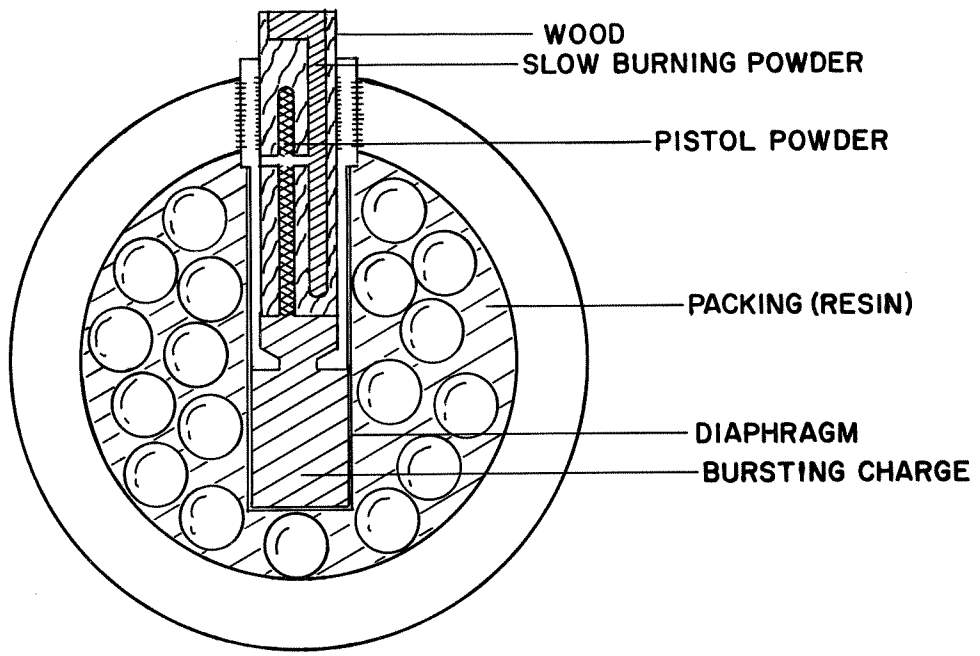


FIG 4 BOXER'S TIME FUZE AND DIAPHRAGM SHRAPNEL

further contained in a tinned cup. The cavity above the diaphragm was filled with approximately half inch shrapnel balls or bullets composed of lead and antimony. The balls themselves were held in place by a matrix of resin.

In larger shrapnel shells, a head which closed the forward end of the cavity, was screwed into the body and fastened with brass pins. A combination fuze (time and percussion) was screwed into the head. In most smaller shrapnel shells or those in the class of the British 18 pounder, the fuze screwed directly into the top of the shell cavity and no head was used. (see Fig 5). The fuze was connected to the bursting charge by a central tube extending through the head and diaphragm.

When the gun was fired, set back armed the fuze and ignited the powder train. This train could be adjusted to burn for a desired number of seconds and was set to explode when the projectile had reached a predetermined point above and in front of the target. After the specified number of seconds, the time train ignited the magazine charge in the combination fuze and the flame passed down the tube to the base charge of the shrapnel. The exp-

losion of the base charge did not rupture the case but ejected the diaphragm (steel disc), bullets, head and fuze. The bullets were projected forward with an increased velocity and due to the rotation of the projectile they were dispersed to the left and right. The paths of the bullets formed a cone of dispersion about the prolongation of the trajectory. The pattern that this cone made on the ground was an irregular oval with its longer axis along the line of fire as indicated in Fig 6.

For many years prior to 1914 divisional field artillery guns in most armies were supplied with shrapnel and high explosive shell in the ratio of about 75 to 25. The French military authorities were one of the first to reverse this ratio and planned their ammunition supply in World War 1 on the basis of a high percentage of shell. The battles in France clearly demonstrated the superiority of shell over shrapnel and shell was used in ever increasing quantities by all the powers involved. By the end of the war the ratio of shrapnel to shell being used was approximately 20 to 80.

In a 1929 text the argument of shell versus shrapnel was summarized as follows:

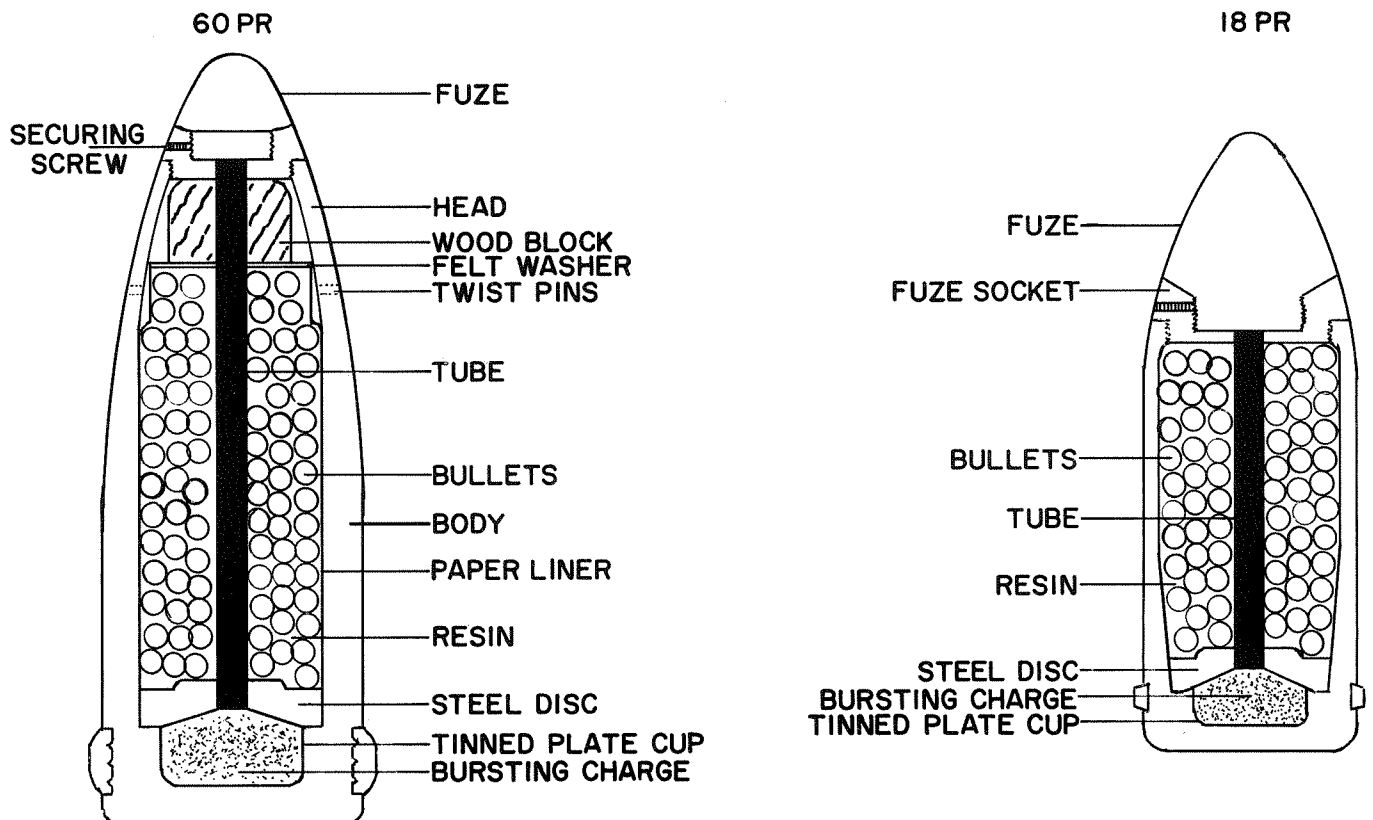


FIG 5 - TWO WORLD WAR I SHRAPNEL ROUNDS

1. Shrapnel

- a. Shrapnel is clearly superior to high explosive shell against thick skirmish lines and troops in the open. But the development of machine gun fire and the introduction of the .50 inch machine gun have reduced the necessity of shrapnel fire against troops even under these conditions.
- b. A 12 gram shrapnel ball, striking with a velocity of 500 feet per second will put a man out of action. Shell fragments are irregular in size and can not be relied upon to break up or spread according to a fixed rule.
- c. The spread of shrapnel is 25 times that of high explosive shell.
- d. Shrapnel is superior in grazing fire, as the added velocity on burst greatly increases the spread in the direction of range.
- e. Shrapnel gives the balls an increased velocity in the direction of range and of deflection. This increased velocity along the trajectory is about 250 feet per second.

2. High Explosive

- a. High explosive shell is effective against field works, field guns, field mortars, and machine gun nests, where shrapnel is almost powerless.
- b. The greater effect of shell against troops in trenches is undeniable as the burst scatters the fragments in a direction perpendicular to the trajectory. Trench fighting and barrage fire have diminished the usefulness of shrapnel.
- c. The shell has greater effect on morale on account of the violence of its concussion and its noise of detonation.
- d. The manufacture of shell and shell fuzes can be accomplished more quickly and at less expense than shrapnel and combination fuzes."

It is obvious that the warfare considered at that time is strikingly different than that envisaged today however those were the arguments considered valid.

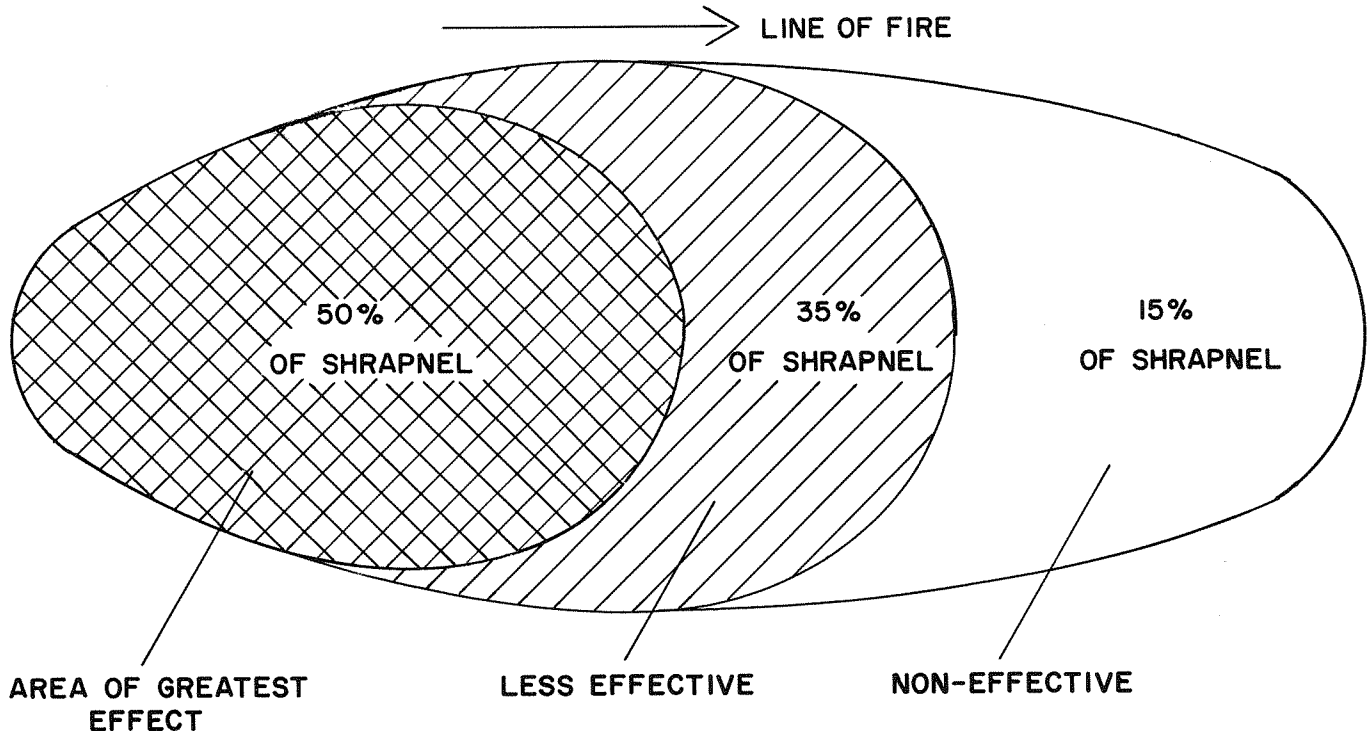


FIG 6 DISPERSION PATTERN OF SHRAPNEL

There were three main reasons for the demise of the shrapnel round. The first of these, and one that our 1929 text failed to mention, is that to be effective, the shrapnel round had to function in the air and at a position on the trajectory which would cause the bullets to carry forward with slightly increased velocity to the target. Time fuzes, even in this modern age are not perfect and numerable malfunctions occur. It is reasonable to expect then, that in the era of World War 1 the fuzes in use were certainly no better. If the time fuze did not function properly the shell was virtually wasted because although it functioned on impact the bullets simply blew into the ground.

The second reason for the demise of the shrapnel round is that it was primarily an anti-personnel weapon. The bullets were of little value against material targets of the type which began to be presented in World War 1.

The third and certainly one of the most important reasons for the shrapnel round falling from favour is that the high explosive shell cost considerably less to produce than the shrapnel with the added bonus of being a much more versatile round.

The shrapnel shell introduced in an era of deep infantry columns, in which its long beaten zone was capable of producing great lethal effect, progressively lost its value as infantry formations were extended. It was not until 1935 that it was finally eliminated from the field artillery, high explosive shell then becoming the normal field gun projectile.

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QUALIFICATION REQUIRED OF FIELD OFFICERS AND ADJUTANTS

Field Officers and Adjutants of Garrison Artillery, Engineers and Infantry and Rifles not in possession of a Certificate of Equitation, are required, unless under very exceptional circumstances (to be reported upon by the District Officer Commanding) to qualify for such within one year from 1st July, failing which they will be liable to have their appointments cancelled.

(Reprinted from Militia General Orders; 1896)

25 POUNDER MEMORIAL

HAMILTON OFFICERS' INSTITUTE

As an observance of the Canadian Artillery's Centennial and as a memorial for all those who died serving the guns in war, a memorial plaque was unveiled on October 20th by the Lieut. Governor of Ontario, Hon. W. Ross MacDonald. LCol Harvey A. Farthing, E.D., C.D., was in charge of the committee that planned the observance. The plaque is affixed to a 25-pounder on the lawn of the Institute. Former gunners of all ranks participated. A reception followed the unveiling ceremony.

The text on the plaque is as follows:

THE 25-POUND GUN/HOWITZER

This 25 pdr. Gun, (built in Sorel, Quebec), bearing the tactical signs of the 11th (Hamilton-Wentworth) Field Battery, symbolizes the guns of the field artillery which served The First Canadian Army in the Second World War in Sicily, Italy, and Northwest Europe; subsequently in Korea. The 25 pdr. also served other commonwealth and empire armies on farflung battlefields in Africa, Sicily, Italy, Singapore, Malaya, India, Burma, and Northwest Europe.

Traditionally, its guns are the colours of The Royal Regiment of Canadian Artillery. In the hands of skilled and determined gunners, the 25 pdr. worthily upheld the motto of the regiment:

Ubique

Quo Fas et Gloria Ducunt

*This plaque was unveiled on the
20th day of October, 1971*

by

*Colonel, The Honourable William Ross MacDonald, PC, CD, QC, LLD
Lieutenant Governor of the Province of Ontario
commemorating the 25 pdr. guns,
and those who served them
in war and in peace*

DEDICATION!

*We served! the guns among unknown men
In lands beyond the sea;
Nor Canada! did we know, till then,
What love we bore for thee.*

GOD SAVE THE QUEEN

*Captain General
The Royal Regiment of Canada Artillery*

3 RCHA



3 RCHA HAPPENINGS

EX NORTHERN GUARD

In January, G Battery followed the cold and snow to Dundurn Saskatchewan for Exercise *Northern Guard*. We joined 1 PPCLI, B Coy 2 PPCLI, LDSH, the Air OP Troop and other assorted elements for two weeks of winter training.

The battery flew out of Brandon for Saskatoon on the 12th and 13th of January. For most, it was then a simple matter of driving through Saskatoon and 15 miles on to Dundurn. Commanding an M577 Command Post Carrier through downtown rush-hour traffic is a unique experience, but for the CPO, it was a long cold pull behind a recovery vehicle.

The next day we moved into our tents and huddled around those magnificent Yukon stoves. The Tent Group Commander's severest test of leadership came about 0500 hrs daily when it became necessary to decide who would go out to change the gas can.

The first eight days were spent in unit training. We learned (or rather, relearned) a few lessons. Navigation in virgin snow, often at dusk, proved to be a real problem. We encountered the enormous problem of wheeled vehicles mixed with snow, and we proved, several times over that a wheeled gun-tower will not go anywhere in snow. G Battery came up with two ways around the problem: one was to use the APC's of the recce party to bring the guns on to the position from the point where the wheels bogged down. The M113 proved to be an excellent tower since the low towing eye increased the stability of the Pack Howitzer. The other solution involved helicopters as prime movers. The tracked Command Posts and recce vehicles would, of course, proceed to the area and prepare the position. (The carriers were quite useful for clearing gun platforms.) This method was practiced on our helicopter-training days and was used, successfully, during Exercise *Northern Guard*. The battery rounded out the unit training with some live firing into the postage-stamp impact area.

The battery participated in two exercises, *Raison D'Étre* and *Northern Guard*. Both practiced us in cold weather operations with our supported arm. We also achieved some expertise in setting up an arctic tent in a high wind in the dark, and in how to sleep 8 bodies in two carriers.

The battery brought back many memories of Camp Dundurn, some pleasant, some not so pleasant. One thing that they all have in common is unbelievable cold.

FLOOD CONTROL

The flood forecast for Saskatchewan as of April Fool's Day was, "minimal threat barring abnormal precipitation". Above-average temperatures, however, resulted in rapid run-off in the prairies, and eleven days after the TCHO prediction (wrong on all counts), Regina experienced a flash flood when the banks of the Wascana Creek overflowed. Flood control operations, as TCHO informed us, were begun immediately with personnel from CFB Moose Jaw, but hardly a word was said about Lumsden.

The town of Lumsden is situated about 15 miles north of Regina, nestled in the valley of the Qu'Appelle River — probably to take advantage of what little scenery exists on the prairies. In antediluvian days, Lumsden could claim reknown as "one of Canada's ten most picturesque communities". After the flood, some of the natural features had re-arranged themselves, but Lumsden could still be described as picturesque.

Our regiment's involvement with the Lumsden flood began on Monday, 13 April (more omens). Flying the friendly skies of ATC, 200 personnel moved to CFB Moose Jaw and then proceeded by bus, in shifts of seventy, to the flood site. Fortunately, dyking operations were well advanced by the time we arrived, and our only immediate requirements were to liaise with the municipal authorities and EMO representatives, and to assist with dyking in critical areas. The headquarters operated from the Lumsden Civic Centre (the town's Centennial construction project), and our HQ personnel soon settled into the routine of dispatching sand and sand-bags to the work points. It also had to cope with an



occasional phone call from a worried Regina mother whose boy had "run away" to fight the floods, but problems were generally few. Meanwhile, the working bodies were kept busy reinforcing old dykes and facing them with polyethylene to prevent the erosion of rotting sand-bags.

As we learned from the townspeople, the last major water disaster to strike Lumsden was the "Flood of '69" - people there still speak of it with awe - and by the end of the first day, dyking was completed to a level two feet above the 1969 flood level. In the days and nights that followed, while we waited for the Qu'Appelle to crest, we spent our time patrolling the dykes and building up sand-bag reserves in "strategic" locations. Of course, considerable time was also devoted to the fine art of "Shooter". By Thursday evening it had become apparent that the town's preparations were sufficient to meet any threat, and accordingly, Mayor Johnson agreed to release 3 RCHA personnel on Friday.

The last shift left Lumsden for the last time at about 1000 hrs Friday, and flood control for 1971 became a thing of the past, as did tuning in to the Stanley Cup series on an AN/PRC 25 set. Over the next few weeks, the gradual disappearance from conversation of such place names as Jamieson's farm, the Steel Bridge, and the West Dyke marked the passing of spring and the arrival of.....

COMMANDER'S INSPECTION

Brigadier General C.J.A. Hamilton MBE, CD, conducted a semi-annual inspection of 3 RCHA on 8 Apr 1971.

During the formal parade and inspection in the morning, the General inspected the cleanliness of weapons, anti-gas masking drills and other "signs of professionalism". The rest of the morning was devoted to an inspection of regimental facilities and equipment, followed by lectures which had been assigned to Bombardiers (much to their surprise) during the parade.

After an informal luncheon in the Officers' Mess, J Bty proceeded to the ranges where they demonstrated their capabilities in deploying the guns and engaging targets.

After the demonstration, the General attended an informal gathering at the Sergeants' Mess for the WO's and Senior NCO's of the Regiment. Meanwhile, G Bty began to relax having been keyed up for a "call out" all day. The day was finalized by an informal buffet for Regimental Officers, their wives and guests from CFB Shilo.

General Hamilton stated, in his parade address, that he felt a unit undergoing inspection should feel that it is being inspected. 3 RCHA had that feeling.



BGen CJA Hamilton at C Troop's OP.

EX NIGHT TRAIN II

The aim of Exercise *Night Train II* was "to improve the night operations capability of all members of 3 RCHA".

The aim was achieved by advancing Father Time twelve hours and remaining in that state for five days. Training, and all unit "daily" routine, commenced at 0800 "PM" and ceased 1630 "AM".

The first day - or night - was devoted to individual training. Lectures, films, daily maintenance, preparations for a movement exercise and remaining awake filled our initial eight hours.

The following night proved to be both educational and humorous. Lieutenant-Colonel Simonds decided that the time to re-discover SAWYER TRAIL had arrived. Captain Vic Troop (who should seek employment with Manitoba's Travel Bureau) devised an elusive and probably scenic route over and around SAWYER TRAIL. The journey confirmed road movement, night driving and navigation lessons - and taught humility.

The remaining three nights were comprised of concurrent but separate exercises for each of the three sub-units.

Exercise *Triple Light*, a Small Arms Practice, involved the engagement of targets under artificial illumination. Rifles were fitted with infra-red sighting systems, and the soldiers fired at targets appearing at irregular times and distances. Sections armed with C-1s, C-2s and SMGs engaged advancing forces illuminated by para and trip flares. In all instances, the enemy hordes were repelled - or at least terrified.

Exercise *Dark Horse* was designed to practice drivers and co-drivers in tactical night driving, map using, and practical problem solving. In contrast to the preceding Regimental movement exercise, emphasis was placed on single vehicle movement. The fun (?) part included changing one perfectly good tire for another, evading ambushes, and finding the proper route without being heard or observed.

Completing the trio of exercises was *Owl Prowl* - a patrolling caper. Appropriately dressed and carrying delectable box lunches, escort and recce patrols were dispatched nightly. The weather was perfect, usually wet and always cold. The accuracy of the patrol reports, however, signified the efforts which soldiers put into the exercise in spite of adverse conditions.

With the aim of *Night Train II* achieved, the week ended in the usual Happy Hour, which continued into coffee break.

PRACTICE CAMP

1 Airborne Battery joined 3 RCHA, contributing additional enthusiasm and guns to two very successful weeks of gunnery.

A competitive atmosphere, which remained in force for the duration of the camp, was generated on the opening day. Both units displayed their expertise by engaging in Quick Action, Open Action and Anti-Tank competitions. Captain Tak Taka-hashi's troop put a broad smile on Major Doyon's face by winning both the Open and Quick Action encounters. Bombardier S.W. Harper and his "G" Battery detachment combined speed and accuracy to gain an impressive victory on the Anti-Tank Range.

Technical proficiency was confirmed on the second day as the combined units engaged targets by employing most of the current procedures. The highlight of the day was the engagement of an 800 metre linear. The accuracy of our survey complemented the consistency of the guns to provide decisive neutralization of the enemy. In this case, the enemy was a calibration ladder - the ammunition, HE TIME, - the result very gratifying.

Two exercises, based on re-enforcement of airborne forces in defensive and offensive operations, completed the Practice Camp.

The defensive exercise commenced with parachutes silhouetted against the early morning sky as the Airborne Battery assumed its initial posture. The Airborne Gunners married up with their equipment realistically dispersed throughout the Drop Zone. Shortly after leaving their aircraft, the Battery commenced firing and construction of a defensive position.

The operation expanded as the Regiment commenced a simulated air move to an airhead (L-Parade Square). The unit's "chalks" moved from the Airhead to the Assembly Area. As tactical groups were formed they were dispatched to the Concentration Area and finally the gun positions.

As the tactical situation intensified, the OP's and guns responded to the challenge. During this exercise, DF Planning procedures, passage of tactical and technical information, and technical drills were emphasized. Captain TAD Fetterly and his AIG's, Warrant Officer Walker and Sergeant Hardy from the Combat Arms School, aided by Warrant Officer Resch and Sergeant Brow from the Regiment, ensured that maximum benefit was gained from each aspect of the exercise.

This first exercise was attended by a team from the Defence Research Establishment, Suffield. Their aim was to gather data to enable more complete



“Once more into the breach, dear friends!”

studies of the audio conditions and their effects on a detachment as a gun fires. The static exercise and the intensive firing provided a wealth of data suitable for analysis. We should hear their results through the Surgeon-General's Office in the next few months.

An evasive enemy, possessing cunning and mobility proved a challenging opponent for our final, offensive exercise. Victory was equally evasive until most artillery procedures inherent to offensive operations had been employed.

The participation of a mortar group from the Second Battalion, Princess Patricia's Canadian Light Infantry provided additional realism for the exercise. This realism included the opportunity to practice and assess FSCC procedures.

The format was quite simple: a two or three serial fire plan was executed in support of a company quick-attack, and in most cases the initial assault was repulsed revealing a more potent adversary than initially appreciated. The Battery Commander was required, therefore, to co-ordinate the fire of the Regiment, mortars and aircraft in support of a Battalion attack. Victory, if only temporary, was signified by the adjustment of DF's.

This format gave all ranks the opportunity to test their capabilities and expand their gunnery knowledge. The IG's and AIG's ensured that the maximum training value was gained from each experience.

Fireplan *Pegasus' Pride*, a six ton HE finale, proved a fitting climax to the exercise and the Practice Camp.

EX POWDER KEG

The "Fantasians" were unable to make it to Wainwright this year due to other engagements. However, the aggressive and oil-hungry "Flatlanders" substituted as an enemy force during 1 Combat Group's Exercise *Powder Keg*. Essentially, the exercise was similar to the previous year's *Random Shot* in that all phases of war were rehearsed, but a change in direction was evident. Movement took the Combat Group forces from the Battle River, down Khaki Trail, across Ribstone Creek, and into the area of Gunner and Patricia Hills.

With G Battery in DS of 2 PPCLI and J Battery in DS of 3 PPCLI, the enemy was pushed from Gopher Hole to Muskrat Den and Ox Corral until he was finally thrust into Animal Farm.

Weather-wise, the Regiment's spirits were dampened somewhat during the initial phase of the exercise as a steady and typical Wainwright drizzle provided tactical cover for the preparation of defen-

sive positions on the heights overlooking the Battle River. A change in the weather was accompanied by a change in the fortunes of war, and Day Two saw 1 Combat Group take the offensive. Victory was within reach.

Realism for the gunners was effected through the use of several hundred blank cartridges, and their use effectively punctuated the three days of night occupations, digging, and difficult reconnaissance.

Powder Keg's singular effect was to stress the reality of operational kinship among the combat arms, but lessons were learned. The most important one for the gunners pertained to the problem of providing adequate fire support during mobile operations. During *Powder Keg*, as in *Random Shot*, we discovered that the combination of a short-range weapon and a restricted number of fire units hindered the strike-effectiveness of the supported arms. On more than one occasion, the advance came to a grinding halt because four troops could not be deployed rapidly enough to stay within range of the main body.



Capt GR Manson brings in the 3 RCHA Battle PT team on Waincon Sports Day.

LIEUTENANT GOVERNOR'S VISIT

The Lieutenant Governor, the Honourable W.J. McKeag, and Mrs McKeag visited Shilo on 28 May 1971. On this occasion they were welcomed by a "Royal Salute" and a "Guard of Honour" provided by 3 RCHA. The salute was fired by members of J Bty and was commanded by Capt R.S. Wilson while the Guard of Honour was commanded by Capt D.H. Brown.

Social events during the visit of the Vice Regal couple included a mixed luncheon at the Officers' Mess, a Tea Party and a Band Concert

at the Country Club, and the Officers' Mess Annual Spring Ball.

During the Tea Party, Capt Wilson presented Mr McKeag with the engraved cartridge case of the first round of the Salute fired that morning. The engraved cartridge case of the first round of the Salute fired in Winnipeg during the Lieutenant Governor's investiture into office was also presented by Capt K.W. Wenek who had commanded the Saluting Troop on that occasion.

CHANGE OF COMMAND

After two and one-half years, 3 RCHA said farewell to its CO, Lieutenant-Colonel Simonds. He has been posted to CFHQ, Ottawa, as DERL 2.

Lieutenant-Colonel W.D. Wellsman, CD, assumed command of 3 RCHA from Lieutenant-Colonel C.R. Simonds, CD, on June 28. Due to regimental commitments at the time, there was no official change of command parade held until September 16.

A ceremonial parade was held on September 16 at CFB Shilo which saw Lieutenant-Colonel Wellsman officially assume command of 3 RCHA from Lieutenant-Colonel Simonds, Brigadier-General C.J.A. Hamilton, MBE, CD, Commander of 1 Combat Group, was the Reviewing Officer. After the parade and inspection, Lieutenant-Colonel Wellsman and Lieutenant-Colonel Simonds signed handover documents with Brigadier-General Hamilton as witness.

SSEP

Once again members of the 3rd Regiment were given an all expenses paid vacation in Western Canada. On this occasion, they were tasked with organizing and instructing one of the federal government's proposed answers to student unemployment - the Student Summer Employment Program (5B) that was held in CFB Wainwright, from 12 July to 22 August 1971. This program was designed to provide meaningful and gainful employment for militia personnel and also qualify them to the junior NCO level. The promotion of physical fitness and the development of good citizenship attributes within the candidates were included in the scope of training.

To achieve the aim of the program, 3 RCHA provided approximately 110 all ranks. Under the hand of Major S.D. Green they were organized into four 3-troop batteries and a small headquarters element. A transport pool of regimental vehicles provided administrative support for the day to day operation of the program.

The subjects covered varied in scope, and ranged from the theory of methods of instruction to practical leadership training. Also included was a four-hour presentation by two members of the Alberta Department of Alcoholism and Drug Abuse. Physical training, recreational sports, drill, fieldcraft and initiative training rounded out the program. The course concluded with a four-day, modified, escape and evasion exercise. For this exercise, the students were taken roughly ninety miles from camp, given maps and compasses, and told to make their own way back while performing various tasks

own way back while performing various tasks en route.

The quota for the program was 480 candidates and all but fifteen vacancies were filled. The course was successfully completed by 385 students, and several letters and comments were put forward by the students' parents for a job well done.



Capt RS Wilson presents Lieutenant Governor WJ McKeag with a souvenir casing.



LCol CR Simonds signs the change of command documents while BGen CJA Hamilton and LCol WD Wellsman look on.

ARTS 71 AND RSS

Captain R.J. Beardmore

Wainwright. Combat Group Concentration and formation exercise. Militia Concentration. SSEP (5B). Civilians, students, long hours, and irregular holidays. These are some of the thoughts that summer 1971 brings to the minds of a large number of 3 RCHA personnel. To six people, it brings to mind something else, something which made me keenly aware of two seemingly insignificant entries in the base telephone directory -- aware also of two small offices tucked away in the large headquarters building.

ARTS was held at Wainwright during the summer of '71. ARTS is not an extension faculty of the University of Alberta. However, it does involve education -- even co-education.

ARTS stands for Area Rank and Trade School. Its composition was a headquarters, staff, and students for the eight courses which were conducted. The courses were Major Qualifying, Captain Qualifying, Lieutenant Qualifying, Senior NCO RCIC, Senior NCO RCAC, Artillery Technician, Administrative Clerk and Small Arms Instructor. All of the

students were militia personnel from Pacific Militia Area (the province of BC) and Prairie Militia Area (geography between the Lakehead and the BC border). The headquarters and staff were a combination of regular force personnel from 1 Combat Group and militia personnel from the two militia areas.

Co-educational classes were enjoyed by the students of the Major Qualifying, Lieutenant Qualifying and Administrative Clerk courses. The rest of us appreciated the presence of the ladies as well.

Through working with ARTS '71, I realized that there is a deeper involvement of regular force personnel with the militia than I had originally thought. Therefore I conducted an informal investigation and discovered that a rather extensive organization does exist to assist the militia units. This organization is responsible to FMC and is basically the same in each of the five militia areas.

Each Militia area has a headquarters, for which a typical personnel breakdown is as follows:

MILITIA		REGULAR FORCE	
POSITION	RANK	POSITION	RANK
Commander	BGen	Commanding Officer	Col
SSO Ops & Trg	LCol	SSO Area	LCol
SSO Log & Adm	LCol	Compt	Capt
SO Ops & Trg 3	Maj	SO Log & Adm 2	Maj
SC Log & Adm 3	Maj	SO Ops & Trg 2	Maj
SO Ops & Trg 3-2	Capt	SO Log & Adm 2-2	Capt
SO Log & Adm 3-2	Capt	SG Ops & Trg 2-2	Capt
		Trg LO	Capt
		MWO Log/Adm	MWO
		Chief Clerk	WO
		Log Clerk 2	Sgt
		Log Clerk 3	Sgt

It is interesting to note that the senior appointments for the various departments are filled by militia personnel, and in fact, the militia is responsible for decision-making in these departments. Each department head, however, has a regular force assistant who acts in an advisory

capacity for his counterpart.

Each militia area is further broken down into militia districts, and a typical personnel organization of a militia district headquarters is as follows:

MILITIA PERS		REGULAR FORCE PERS	
POSITION	RANK	POSITION	RANK
Commander	Col	SSO District	LCol
SSO	LCol	SG Ops & Trg 2	Maj
Ops & Trg	Maj	Pers O	Capt
Log & Adm	Maj	Chief Clerk	MWO
Trg Coy	Maj	Records Clerk	Sgt
Ops & Trg	Capt	Finance Clerk	Sgt
Log & Adm	Capt		
Log & Adm	Capt		
Trg Coy	Capt		
Finance	Capt		
Recruiting	Capt		

Each Militia Area has a number of regular force personnel working within the area under the designation of Regular Support Staff (RSS). This team includes those personnel working at the militia District Headquarters.

A number of other regular force officers and men (distinct from the two headquarters mentioned) belong to RSS, with their numbers and corps dependent upon the number of militia units and their corps within the Militia Area. The RSS are generally scattered throughout the area in twos and threes to assist the militia units, which are also scattered throughout the area.

The function of the RSS is to assist and advise the militia units in all aspects of training and administration towards the fulfillment of the militia's roles. The militia's roles are:

1. to provide trained individuals for augmentation and reinforcement of the regular force;
2. to provide trained sub-units to support field force for the defence of Canada and the maintenance of internal security;
3. to provide trained personnel for augmentation of the Civil Emergency Operations organization; and

4. to form the base on which the regular force could be expanded in the event of an emergency.

In doing their jobs some of the RSS travel to the weekly parades of all the militia units within the area. They supervise the administration and training of the militia units, help set up and run all types of exercises and assist the militia units in preparing for their annual inspections. (The RSS task involves a great deal of travel and frequent sacrificing of week-ends.)

Sometime in the future, when you are told you have been posted to the RSS, you will madly hunt for this article, which I hope will give you at least a general idea of what you may be doing.

The two entries in the Wainwright directory? They are:

Regular Force Support Officer	4389
Regular Force Support Staff	4389

In reality, two people. Each has an office and a phone sharing the same number, but now we know something about their functions.

5 RALC



EXERCICE OURS VIGILANT

The ides of March saw X and Q batteries carrying out the final preparations for Exercise *Ours Vigilant*, their first live-firing exercise with helicopter deployment. Observers had attended our sister regiment's Exercise *Haven Lift* in Base Petawawa and returned full of enthusiasm for the vertical approach.

The usual peacetime and maintenance problems prevented 450 Tpt Hel Sqn from full participation in the exercise. The squadron was able to provide only two CH 113A VOYAGEURS with ten hours of flying time left on each machine. Plans were revised, however, and each battery was able to complete three deployments with live firings from each landing zone.

For many, this was the first ride in a helicopter and for virtually all it was their first attempt at deployment by helicopter. They quickly found that many of the standard deployment drills must be modified and that new drills must be established for this special mode of transport. The principal points noted were as follows:

- a. Unless the pilot is familiar with the gun position, he cannot recognize number one gun for pick up and it has to be indicated to him. Similarly, in diamond formations, even experienced pilots have trouble determining which is number two unless they have been well briefed and understand the layout of gun positions.
- b. Rope guys save time and are convenient in orienting the gun on the line of fire, particularly in deep snow. There must also be an obscure law which says that one may never prove the obvious. On two placements on the second move, howitzers without guys settled in beautifully on line while the third, with the guys, spun around. Retribution was obtained on the next move when these two sank in four feet of snow about two thousand mils off line.
- c. The pendant is neither necessary nor preferred by the pilots, unless there is light fluffy snow in which case the extension enables the helicopter to hover high enough above the ground to avoid blowing up a blizzard.
- d. Gun detachments quickly adapt to moving by helicopter.
- e. It helps if you can be recovered by helicopter; howitzers placed in the Q Bty afternoon position by helicopter were to

be removed by M 113. These APCs got stuck as the spring snow began to freeze around late afternoon and four hours were needed to move the six howitzers two hundred metres to the main road.

EXERCICE PLEIN MOUVEMENT I

The last week of May found 5e RALC deployed on the Valcartier ranges for the annual regimental exercise. The aim of the exercise was to practice the batteries and troops of RHQ at regimental level with emphasis on defensive operations. The regiment had become expert in internal security during operations *Essay* and *Casino* and at last its members were having an opportunity to serve the guns.

Drills and procedures quickly came back and command posts were soon maintaining reams of target records. The 2 RCHA Met Section was a great asset as little prediction had been carried out in the preceding year because of the lack of this facility. Sgt O'Neil's group, augmented by members of 5e RALC Met Section, provided timely and accurate met data and realistic fire plans were produced to include predicted targets.

A group of 25 gunners from our affiliated militia units joined the regiment for the exercise. They were integrated throughout the unit and were able to assume the responsibilities of layers and detachment second-in-command with minimum supervision by the end of the exercise.

Valuable assistance was provided by the Combat Arms School IG team of Capt Zawyrucha, WO Baird and Sgt New, who soon had us back to using "approved" methods.

Night occupations were completed after a long move over the seldom used east gate road. The RCPO was horrified to discover the Maintenance Section's repair teams on regimental net for the move, but was amused with the voice procedure used by the vehicle technicians. All went well and reports of "Ready" from the batteries soon pre-empted chatter about the wrecker's boiled-over radiator. Live firing was conducted successfully after the move, thus adding much realism to the night exercise.

Although Exercise *Plein Mouvement I* only lasted seven days, it served as a good refresher on deployment and firing procedures at battery and regimental levels. Throughout the period, the regiment occupied an average of three positions a day and fired over three thousand rounds. It was a welcome relief from the three-, six- and eight-hour stand-bys, and a pleasant opportunity to "get back to our job".

SUMMER NEW VIKING

On 12 June 1971, la batterie X, 5e Regiment d'artillerie legere du Canada, brought up to full strength by the addition of 30 men from 5e Escadron des Transmissions du Canada, departed Ancienne-Lorette airport for Resolute Bay, NWT, to take part in Exercise New Viking. The night of 11-12 June was the last darkness any of us would see until 23 June, as the complete exercise would take place from 575 miles to 970 miles inside the Arctic Circle, "the land of the midnight sun".

Exercise *New Viking* is a program set up by Mobile Command to show every man in the command environmental conditions in the Arctic, during both winter and summer. It definitely is not winter training. To quote Maj Patterson, CO of exercise *New Viking*: "A soldier can learn basic infantry skills and tactics anywhere and the principles will not change. Only the environment in which he applies these principles changes".

After a flight of approximately six and one half hours by C130 Hercules aircraft, we arrived at Resolute Bay, a small settlement on the south shore of Cornwallis Island. Our reception was almost as austere as the landscape. "Get your equipment in that truck. The Battery Commander, Battery Captain and Battery Sergeant Major ride in this APC; the rest start marching. Your bivouac area is three miles down that road". These were the words of welcome by Maj Patterson. On reaching the *New Viking* HQ at 2300 hours, our tent group commanders drew equipment and rations and we proceeded to set up a bivouac on the sun-drenched sea shore overlooking Barrow Strait. Add to this lovely setting the fact that Barrow Strait was frozen solid and that the temperature was about 32° F.

From 13 to 16 June, our time in the Resolute Bay area was spent in hardening ourselves and learning about conditions. We moved three times, covering approximately 20km. All moves were made using snow shoes and pulling 200 lb toboggans. By 16 June most of the snow had turned to slush, making the going very difficult. During this period we received instruction on northern navigation and we learned to use the astro compass (magnetic north was due west and magnetic variation changed as much as 100 mils every 1000 meters one moved). We also had a talk on living off the land, but it was agreed that a better title would have been: "Don't Get Lost Up Here". On the evening of 16 June we received a warning order for a long range patrol to Sachs Harbour, a settlement on Banks Island. With that knowledge we headed for the Airport Hotel for our mid-exercise hot meal. During the meal, a \$5.00 a plate dinner paid for by DND, we were informed

that the location of our patrol was changed. We were now going to Eureka, a settlement on Ellesmere Island, approximately 300 miles south west of Alert. That bit of news increased interest and forced a few back for second helpings.

June 17th began with heavy fog all around us. It burned off by about 0900 hours and the first chalk of 50 men, complete with stores and rations for nine days, left for Eureka. The second chalk, identical to the first, left at 1340 hours. The battery was complete in Eureka by 1500 hours and had a bivouac set up by the side of the runway in skirt order.

Eureka was different from Resolute in that there was virtually no snow and there were many high mountains. Because of the lack of snow, everything we needed from now on, would be carried on our backs. This meant no tents and all the extra gear people had been carrying was put aside to make room for five days worth of rations, naphtha, and stoves. It was amazing to see the things people found they didn't need. Our bivouac area with tents, toboggans, snowshoes and much other spare gear remained under the watchful eye of our BQMS, WO L.P. Leblanc, and two dcgs he had befriended. Then we put our watches to Zulu time (-3hrs) and tried to get some sleep, as reveille was at 0500 hrs. For some reason, possibly excitement, sleep eluded most of us and the quiet hours were spent chasing arctic hares which abounded in the area. We had been told that five men could live for a week on a shoulder roast of one of these hares and still have enough left over for sandwiches. Man, can those hares run!

At 0700 Z 18 June, the battery started on the first leg of its route. The ultimate objective was a mountain approximately 15 km away and 1700 feet high. The mountain was farther north and higher than any other point visited thus far by other units on Exercise *New Viking*. We were also to carry out a number of tasks en route. We were to:

- a. prepare a route sketch to our objective;
- b. determine the feasibility of using vehicles to travel the same route;
- c. construct a cairn at a particular grid reference on the route; and
- d. collect specimens of plant life.

However, at that particular moment nobody was looking much farther than the first bivouac area. Those five days of rations plus personal gear in the pack weighed anywhere up to 80 lbs and after a couple of hours felt like a ton. By 1200 hrs we had covered 13 km and had reached the end of the first

leg. One hundred very tired men went about setting up a poncho village – a bit of a trick with no trees or branches available. The few cases of blisters we had were treated by Cpl Racine, our self-appointed doctor. Those who had chased arctic hares the night before had no problems sleeping this time.

At 0700 hours the next morning, 19 June, the battery was on the trail again. This time the load was much lighter, as we had eaten one day's rations and cached two days worth. By approximately 1130 hours we had travelled 11 km and were at the 1200 ft mark of the mountain that was our final objective. Here we set up our bivouac area for the night and had lunch. At 1330 hours we started for the top. Once there, we erected two cairns and built a large X which was about 20 meters from tip to tip. The view from the top of the mountain was magnificent and we could even see our tent lines back at Eureka. We found later that we could just see the southernmost cairn from the tent lines. After the cairns and the X were finished, it was back to the bivouac area to melt snow to fill our water bottles.

The 20th June was pretty much a repeat of 19 June as we retraced the trail back to our food cache. The big difference was that most of the way was downhill and therefore we covered the distance much more rapidly. We arrived at the food caches at about 0930 hours and quickly set up our bivouac.

After lunch the battery split in two and went on a foraging trip, A troop going 4 km upstream along a small river near our location and B troop going the same distance downstream. These trips proved most interesting in that many fossils and sets of horns were found. We saw plenty of musk-ox tracks and hoped to see the herd, but they had left the area by the time we arrived.

The 21st of June is the longest day of the year in the northern hemisphere. However, with our 24 hours of sunshine per day we didn't really notice the difference. We broke camp at 0700 hours and moved about 1000 meters to the area where we were tasked to build a cairn. The orders from the Battery Commander, Major Pierre Marceau, were that the cairn was to have a base 10 feet square. But as our measuring device was WO LeBreton and he is only six feet long, the Battery Commander settled for a six foot square base. It was a bit more difficult building here than on top of the mountain. Although there was no shortage of rocks, they were round as opposed to the flat type on the mountain. This caused a number of cave-ins which tasked WO McGraw's engineering skills to the limit. By 1000 hours the cairn was finished except for a bit of centre fill. This fill was put in by 100 men standing around the cairn and throwing small rocks into the centre of it, while singing "O Canada". It was quite a sight!



A battery bivouac during New Viking.

By 1200 hours the Battery had moved 8 km and set up bivouac again. Along the route we saw four musk-oxen of which there must be 100 pictures in la Batterie X. Also it was near this bivouac area that we nearly lost WO LeBreton. He went looking for the Battery Commander and Battery Captain who had walked on ahead of the Battery. He missed their location and spent 45 minutes walking in circles until he stumbled into them.

After lunch, foraging parties were sent out again, this time in groups of 10 men. Some scaled a 2700 ft mountain, others explored a pass through the mountain range. These trips ranged anywhere from 10 to 16 km. A fair bit of booty was brought back including a number of radio-sondes, a piece of wood with "Soviet Union" written on it and the inevitable horns. We also came across a very weather-beaten sign that we believe was placed there by the "Devon Explorers Club".

On 22 June, our last day on the trail, everyone was anxious to get going on the 12km trek back. Most men just wanted to get to the tents to get a rest from the constant wind and sun but a few had

eaten too well and were short of rations. Word came around that we were going to stay out one more day and that caused a mild panic. However, once on the trail the panic died down as we were headed in the direction of the tents. The pace was very fast as everyone was anxious to get back. At 1115 hrs the Battery was met by the BOMS, two dogs and a fairly tame long-tailed jaeger (bird) at the tent lines. The BOMS, being quite a story teller, was desperate for someone to talk to after spending five days alone. That in itself made for a very welcome home coming.

The rest of the 22nd and the morning of the 23rd June were taken up cleaning equipment, eating and sleeping. At 1545Z the first chalk left Eureka for Resolute Bay followed by the second one at 1635Z. The pilots of both aircraft kindly flew over our mountain to give us a look at our cairns and the X. We stopped in Resolute Bay just long enough to turn in stores and load box lunches, then took off for Quebec. The last chalk arrived at Ancienne Lorette Airport at 2215 hours Quebec time. We had a good exercise, but it sure was nice to be in darkness for a change.



Maj Pierre Marceau inspects the cairn built near Eureka by X Bty.

EXERCISE PRIME TIME

In June, Q battery deployed to CFB Petawawa to join 2 RCHA for Exercise *Prime Time*. The exercise combined familiarization with the concept, organization, and role of CAST Combat Group with the 2 RCHA regimental practice camp. Further purpose was added to the exercise by way of fire support for the Artillery Officers Instructors Course.

The night road move from BFC Valcartier to CFB Petawawa was extremely smooth with the exception of road construction which inadvertently blocked the exit from the Montreal Metropolitan Expressway to a critical gas halt. To the bewilderment of some Montrealers and the entertainment of those members of the convoy who had successfully negotiated the detours, impromptu drills were developed, with the GPO of D Troop leading C Troop's guns three blocks North of Chabanel while the GPO of C Troop was heading in the opposite direction with D Troop's guns in tow. With the BC's agile shepherding, all was eventually resolved.

The exercise itself was extremely beneficial to all members of the battery and particularly so for the technicians and OP parties. More than 1200 rounds of ammunition were expended in the form of BC's quick fire plans and a twenty serial deliberate fire plan that included a somewhat non-standard standard barrage.

Exercise *Prime Time* afforded the opportunity for many ex-members of 4 RCHA (a major portion of Q Bty) to revisit old places and faces. From an ideally located bivouac at Mattawa and Brindle, maximum use was made of both the beach and the generous hospitality shown by all members of 2 RCHA.

A battery smoker which took the form of a field day culminated the exercise and was highlighted by the presentation of a "beret vert" to LCol Dawes in return for a most rewarding stay in CFB Petawawa.

MILITIA TRAINING

5e RALC once again provided support to our three affiliated militia regiments this summer, namely: 2 Field Artillery Regiment, Montreal; le 6e Regiment d'artillerie de campagne, Levis; and le 62e Regiment d'artillerie de campagne, Shawinigan. The theoretical phase, which was conducted from 12 July to 13 August, consisted of basic artilleryman training on the 105mm M2A2 for 75 militiamen and a Basic Technician Course for 20 militiamen. Both courses were conducted by Q Battery, under command of Capt Doug Eriscoe.

During the week of 14-21 August, the eager, young gunners were able to test their newly acquired knowledge by joining their parent militia regiments for the annual militia artillery concentration. A total of five gun troops were deployed, requiring the assistance of most officers, senior NCOs and communicators of 5e RALC.

The new artillerymen enjoyed this part of their training immensely, especially living and working with regular force gunners. At first, they were somewhat shaken by the operational atmosphere, but they soon adapted. All militia gunners showed interest and enthusiasm during the whole exercise, and they performed well in the gun battery competition that was held on the last day.

A "roaring" smoker was held on the last evening, together with a well prepared barbecue. This was an excellent opportunity for the gunners of 5e RALC to mix with their cousins from the three militia regiments.

SPLASH

Splash will only be reported to the observer when the target description includes, Lake, River, Bog or Stream.

STUDENT SUMMER EMPLOYMENT PROGRAMME

During the summer of 1971, "La Bie X" was tasked to conduct Phase II of the Base Valcartier Student Summer Employment Program (SSEP II).

The battery was reorganized as the SSEP II division with a headquarters and three companies. Maj Pierre Marceau commanded the division with Capt Norm Connolly as 2 i/c, Capt Clair Chamberland as Chief Instructor and Lt Norm Bernier as Assistant Chief Instructor. The companies were commanded by Capt Murray Wilson, Capt Skip Beese and Lt Tom Ross. They were relieved for short but much deserved vacations by Lt Ken Spencer and Lt Rick Burnford. The platoon commanders were senior NCCs, while platoon sergeants were a luxury enjoyed on rare occasions.

The forecast intake was 280 students but when all had arrived, it was discovered that we had sixty-one extras for a total of 341, including sixty unilingual anglophone candidates. This caused considerable reorganization, but the required changes were made, the lesson plans were amended, and training began.

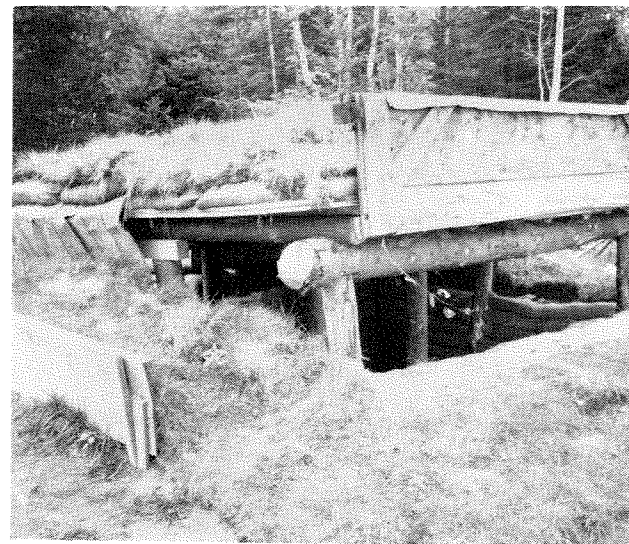
The stated aim of SSEP II was "to train leaders within the student population of Canada". To achieve that end, a course very similar in content to the regular force Jr NCO course was adopted. The candidates received lectures on leadership based on CFP 131(1) The Junior Leader's Manual, on fieldcraft with emphasis on march and bivouac discipline, on methods of instruction, map using, physical training, and a GMT refresher on rifle and foot drills. Several debates were conducted covering topics ranging from welfare to capital punishment, pollution and hair styles.

Less than one third of the course was spent in the classroom because emphasis was placed on physical fitness and practical application of leadership techniques. Many one-day tasks of a useful nature were completed. Small cabins were constructed as targets in the artillery impact areas, range barriers were produced, and bridges and tracks were improved. The tasks were designed to provide the candidates with an opportunity to prepare plans, organize resources, account for stores, issue orders and supervise the workers.

There were several marches, varying in length and difficulty. The compass march was accompanied by pouring rain from beginning to end. The survival march saw several live chickens receive pet names and status only hours before they became a not so tender supper. The forced march produced, of course, a crop of blisters and sore legs.



One of the targets built by SSEP candidates.



An OP built by SSEP candidates.

Many lessons were learned about the bush and how to handle both axes and men. They learned with some assistance from the instructors that pollution control starts at home and that the responsibility for littering our countryside is not only attributable to our major industries.

Questionnaires were circulated at the end of the course. A careful analysis indicated that the food was not considered a special feature of the training, and that while most would have appreciated more pay, they considered that the course had more than monetary value. Individual assessments were not given, because the students were enrolled in a Department of Manpower and not a DND course,

and because the number of instructors available would have made it very difficult to provide proper assessments. The aim was to present a course that would expose the candidates to the theory and practice of leadership. They were also presented with situations that required stamina and determination and encouraged self-examination.

Each candidate took with him his own assessment of himself as a leader and a man. It was indeed encouraging to note that very few candidates withdrew from the course and that 70 percent of those questioned considered that the course had more than monetary value.

EXERCISE RUNNING JUMP II

Throughout the summer, rumors were heard in 5e RALC of strange developments going on East of Canada. Reports kept coming in with warnings of the imminent danger of Fantasia invading Brandia and stating that Canada was preparing to come to the aid of Brandia as part of its commitment to NATO.

Then everything became clear. Exercise *Running Jump II* was to be an exercise to practice the deployment of Canada's ACE Mobile Force (Land) followed by the Canadian Air Sea Transportable (CAST) Combat Group.

Canada's area of responsibility was to be Central Brandia which was, for exercise purposes, the CFB Gagetown Training Area.

Although 5e RALC was not on the order of battle of the CAST Combat Group, both X and O Batteries were to come under command of 2 RCHA to form the CAST Combat Group Artillery Regiment. In addition to providing individual augmentation to 2 RCHA, RHQ of 5e RALC was tasked to form the divisional artillery control for the exercise.

All preparations were made as for an actual deployment overseas, including documentation of personnel, medical records and inspections, preparation of equipment and briefing of all participants.

RHQ deployed to Gagetown as Artillery Control on 19 September. RHQ of 2 RCHA concentrated in Valcartier on 28 September and moved to Gagetown during the period 30 September-3 October with X and O Batteries of 5e RALC. This move of the main body involved sea, air and road movement.

The employment phase of the exercise lasted from 3 October to 11 October. It provided a much needed opportunity to exercise our batteries in a tactical setting at battalion and brigade level.

The exercise "Cease Fire" was given at noon 11 October and by 0500 hrs on 12 October, 5e RALC was regrouped as a unit and was returning to Valcartier by road.



Lt Michel Lemieux gives a briefing.

CENTENNIAL CELEBRATIONS

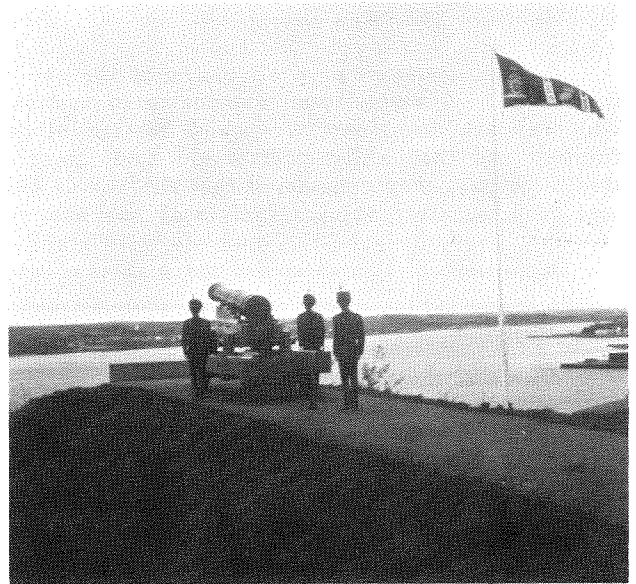
The centennial of the founding of the regular forces in Canada with the formation of A and B Batteries of Garrison Artillery was celebrated on 30 October 1971 by 5e RALC. The ceremonies appropriately took place on the Plains of Abraham next to the Citadel where B Battery was formed and garrisoned one hundred years ago.

Following the inspection by Lieutenant-General G.A. Turcot of a 50-man guard of honour, a 100-gun salute was fired from Cap Diamant, overlooking the St Lawrence River. General Turcot fired the first round with a 24-pounder, one of many deployed on the Plains as commemorative monuments. This gun had been prepared for firing by the gunner element of CARCE, under Capt Paul Robitaille, and its employment as the pistol gun added a colorful and historical touch to the ceremonies. A commemorative brass plaque indicating the gun's role in the salute was unveiled after the firing.

A drive past of the regimental colors and command vehicles followed. The results of two weeks of steaming, sanding, and painting the guns and vehicles by Warrant Bernie Thompson's crew were obvious. The DCO was gratified that his calculations for the time past a point, plus a non-scientific fudge factor to allow for a standing start on a sharp upgrade around a bend in the road were exact; the last gun rolled by the saluting base at the same time as the last round was fired.

The Royal Canadian Artillery Band participated in the programme. The full-dress uniforms, and the renditions of the Screw Guns, the Trot and Gallop, and other artillery selections helped give the ceremonies a definite "gunner" flavor.

The celebrations continued with a "vin d'honneur" at Base Valcartier for the guests and their wives, and for all the members and wives of the unit. A mixed mess dinner at the Officers Mess in the evening, at which Gen Turcot was presented with a brass 23-pounder replica, concluded the day's activities.



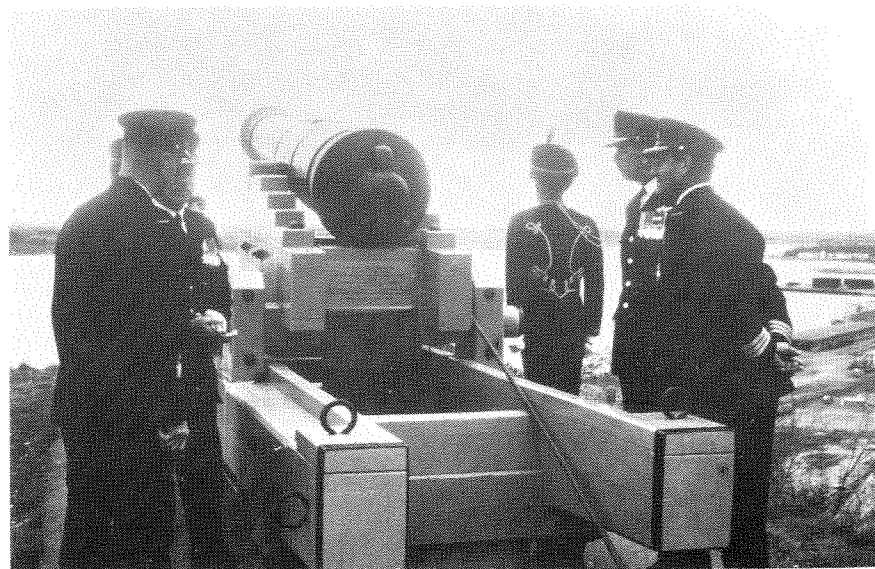
The 24 pdr used to fire the first round of a 100-gun salute, at Cap Diamant on the Plains of Abraham.



LCol JJA Doucet leads the drive past.



Accompanied by Capt Dave Hyman, LGen Turcot inspects the 50-man guard of honour.



A commemorative brass plaque on the 24 pdr is unveiled by LGen Turcot.

1 AB BTY



1 AIRBORNE BATTERY IN 1971

Captain S.S. Takahashi

Once again, in the training year 1970–71, the travelling gunners of the Airborne Battery demonstrated the appropriateness of the motto *Ubique*. Numerous exercises and activities took battery personnel across Canada and even into Alaska. In all types of weather and in a variety of terrain, many miles were logged. Valuable training and experience were gained, in spite of the many tales told in the messes.

In mid-October 1970, the Canadian Airborne Regiment was called into Montreal for *Operation Essay*. Within a few hours of arrival, the battery, augmented by Recce Platoon and "C" Company of the Iere Commando Aeroporte, was ready for Internal Security Operations. On a 24-hour rotational basis, the battery was tasked as Eagle Force (Helicopter), Speed Force (Vehicle), Standby Force and Reserve Force. The Eagle and Speed Forces were designed for Cordon and Search Operations accompanying the Surete de Quebec (QPP). The missions, although unsuccessful in locating the missing Mr. Cross, were performed in an efficient and professional manner. During the Standby and Reserve periods, the Battery carried out training in crowd control, helicopter operations, rappelling, small arms refresher and unarmed combat. The battery left Montreal in mid-November to prepare for the regimental winter exercise.

In late November, the regiment departed Edmonton for exercise *Acid Test III*, an ALCANUS exercise in Alaska. The first week was spent on two independent commando exercises. B Troop accompanied 2 Commando in a paratroop at temperatures reaching 60 degrees below zero. The exercise became a fight for survival as two battery personnel became casualties of frostbite. A Troop was air-landed due to the limited time available for their exercise. The next two days were spent rigging and preparing for the joint Canadian–U.S. exercise. *Acid Test III* began with an equipment and personnel paratroop from the C* 141 Starlifter aircraft. The temperature had "warmed up" considerably to about 20 to 30 degrees below zero. Due to U.S. loading policies, the guns were transported by helicopter to the Drop Zone. The highlight of the exercise for the guns was operating with "skis". These skis were a modification of toboggans thought of by the CO, Maj R.R. Doyon, and transformed into working models by Sgt Girard and Bdr Senechal. With the use of towing straps, the guns were towed by skidoos. This mode of transportation was successful for short moves during the exercise. *Acid Test III* proved to be one of the toughest exercises for the Airborne Battery and no one appeared too displeased when it was over.



Behind the primary weapons of 1 AB Bty, Sgt Girard instructs a detachment in manpacking the 81 mm mortar.



A gun crew and its Pack How is airdropped during a live-firing exercise in Wainwright.

The new year started with ski school at Kananaskis. The battery participated in cross-country skiing, which everyone enjoyed with the exception of one individual who sustained a broken leg. This was a relatively quiet period and a prelude to the activities in March.

In early March the Battery parachuted into Wainwright for the annual Mortar Competition. Each troop completed a four mile cross-country snowshoe march to a baseplate position where they fired a number of targets with the 81mm mortars. After a close match, B Troop proved to be the winners and was awarded the mortar trophy. After a week's "rest", the battery then undertook an exercise in Suffield. Exercise *Perfect Pair* was a live firing and endurance test over a 72 hour period. Another "first" was achieved in that live ammunition was paraded with the guns for the exercise. Movement was carried out using the skis and helicopters.

After another brief rest in garrison, the battery was off to Wainwright for the regimental concentration called exercise *Ready Now*. The concentration consisted mainly of individual and unit training in preparation for the Practice Camp in Shilo. While the OPs were involved in Company Test Exercises with the Commandos, the guns gave demonstrations to the infantry on quick actions, open actions and practiced target grid procedures. The guns were moved back to Edmonton to prepare for the move to Shilo while the OPs and Battery Tac remained in Wainwright for the final regimental exercise.

This year the Airborne Battery participated in a combined gun camp with 3 RCHA. The first event to take place was a competition day consisting of a quick action, an open action and a detachment commander's anti-tank shoot. The battery walked away with the honours as A Troop came first in the quick action and open action. In the battery competitions. A Troop won the trophy presented annually to the winning troop, and the Detachment Commander's trophy was taken by Sgt Brown and his gun crew who had the highest number of hits and the fastest time for the first hit. The gun camp then moved into high gear with a 72 hour defensive exercise including the digging in of the guns. The battery parachuted into the Round Plain to pre-positioned guns. To test the effectiveness of the positions, the exercise concluded with a withdrawal and firing of live rounds at the defensive positions. Prior to the next exercise, the battery spent a day on continuation parachuting at Flewin Field with the support of two Otter aircraft from the Air Reserve. The next phase was a 72 hour offensive exercise including numerous fire plans at the Battery Commander and Troop Commander levels. The entire gun camp turned out to be a huge success and extremely profitable for the gunners of the Airborne Battery. The battery returned to Edmonton for a well-deserved rest and to prepare for the next exercise.

In late June and early July the battery was tasked to supply the enemy force for exercises *On Guard II* and *III*. These were internal security operations held on the west coast of Vancouver

Island. Each troop provided 25 personnel to act as guerillas while the OPs were deployed with the Commandos. Meares Island, where the actual exercise took place, proved to be one of the most formidable areas ever visited by the battery. The heavily wooded and rocky terrain was constantly enveloped in rain and fog.

The remainder of July was spent in preparation for the Mobile Command Inspection. During this period and in August, the leave month, many changes were seen among the battery personnel. Approximately ten per cent of the strength changed.

September began the new training year and commenced with a parade and inspection for the Commander of Mobile Command. As soon as this

was concluded, the Battery prepared to parachute into Wainwright for the Regimental Battle School. A Troop carried out live firing for the Commandos in support of offensive and defensive exercises. B Troop, in the meantime, was tasked to accompany 2 Commando to Gagetown for *Mobile Warrior*. At the conclusion of the demonstration, the troop remained to act as enemy on exercise *Running Jump 11*.

As the battery prepares for exercise *Northern Lancer* in Resolute, it certainly becomes evident that the Airborne Gunners do not let any grass grow under their feet. The myriad of exercises and activities are such that the opportunities for travel and experience are unlimited. Therefore, 1 Airborne Battery can truly be said to be "Everywhere".

DAILY ROUTINE FOR FIELD ARTILLERY BATTERIES

(ca. 1900)

<i>Reveille</i>	5.30 a.m.
<i>Roll Call</i>	5.45 a.m.
<i>Rations</i>	6.00 a.m.
<i>Breakfast</i>	6.45 a.m.
<i>Sick Report</i>)	
<i>Warning for Parade</i>)	7.15 a.m.
<i>General Parade</i>)	
<i>1st Drill</i>)	7.30 a.m.
<i>Stables</i>)	
<i>"Boot and Saddle"</i>	8.30 a.m.
<i>Squad Parades</i>	9.00 a.m.
<i>Guns move off)</i>	9.30 a.m.
<i>2nd Drill</i>)	
<i>Stables</i>	12.15 p.m.
<i>Dinner</i>	12.30 p.m.
<i>"Boot and Saddle"</i>	1.30 p.m.
<i>Squad Parades</i>	2.00 p.m.
<i>Guns move off)</i>	2.30 p.m.
<i>3rd Drill</i>)	
<i>Stables</i>	5.00 p.m.
<i>Tea</i>	5.30 p.m.
<i>Guard Mounting</i>	6.00 p.m.
<i>Retreat</i>	7.30 p.m.
<i>First Post</i>	9.30 p.m.
<i>Last Post</i>	10.00 p.m.
<i>Lights Out</i>	10.15 p.m.

HISTORICAL NOTES



CANADIAN ARTILLERY: 1869

*Reprinted from the Report on the State of the Militia
for the year 1869.*

With regard to the Field Batteries of Artillery, (ten in number) they are in a perfectly serviceable and effective condition, and this satisfactory result reflects great credit, not only on the officers in command of these Batteries, but on the individual officers and men composing them.

The guns, 42 in number, and 441 horses, (with the exception of the 6 pounder Armstrong battery at Halifax, which is not horsed) consist of muzzle loading, smooth bored 9 pounders, and twenty-four pounder howitzers, in the proportion of 3 nine pounder guns, and one 24 pounder howitzer to each battery, these are a good description of gun for field batteries, from the former, the projectiles fired are solid shot, shrapnell shell, and case and from the latter, common and *shrapnell* shell case-shot, and carcasses. The use and management of these guns, are perfectly well understood by the men, who are not hampered by useless trappings. On all occasions, whenever called on, these batteries are fairly horsed, and the harness and tackle, are nearly new; these batteries are kept always supplied with the usual amount of service ammunition, and they are in a fit condition at any moment to take the field. I may add, in connection with this arm, that Canada possesses great resources, for the formation of field batteries of Artillery. The young men of the country are well accustomed to work with teams, and *waggon*s, and being very intelligent, and handy at such work, are easily trained for the duties of field artillerymen, and there is, throughout the country, a large supply of hardy and useful draught horses.

At various reviews, which were held last summer, these batteries worked well in brigade, taking up positions in good style, and firing with ease and rapidity; and they only require, in addition to the periodical practice instruction in firing shot and shell, to be trained at the annual drills in Brigade, in co-operation with Cavalry and Infantry, to acquire and maintain an adequate and reasonable degree of efficiency.

The power and value of Field Artillery, is so well known, and the moral effect produced by it, during operations in the field so great, that the maintenance of these Batteries in a state of efficiency at all times, is a matter of the greatest importance.

The Garrison Artillery numbers at present 3,558 officers and men, and is organised into 7 brigades, and 19 independent batteries; the larger portion of the latter being attached to the rural battalions of their different localities for administrative purposes.

The Head Quarters of five of these Brigades are at Ottawa, Montreal, Quebec, St John, N.B., and Halifax, N.S., and the remaining two form a portion of the Grand Trunk Brigade, which has a distinct organisation, and is intended for the defence and security of that important line of railway.

For the practice and instruction of the men in Gun Drill, these Artillery Brigades have the use of heavy guns of position at their respective Head Quarters, and as soon as additional guns of position can be obtained, it is proposed to distribute them to those independent batteries not already furnished with this necessary means of instruction.

The Garrison Artillery are clothed with the same description of uniform as the Royal Artillery; for small arms they are in possession of the long breech-loading Snider-Enfield Rifle, and they have all been drilled as Infantry.

For the purpose of instructing the officers of the Militia in Artillery Science, there is at present but one school of Gunnery, formed by the Royal Artillery at Toronto, which has been largely attended and has proved of great service; but, inasmuch as it is indispensable for the defence of the Dominion that a sufficient number of trained Artillery officers should be forthcoming when required, I would beg to recommend that Schools of Gunnery for the instruction of the Militia Artillery officers and cadets be formed wherever a portion of the Royal Artillery may be quartered for a certain period, at least, in each year.

SCHOOLS OF GUNNERY: THE FIRST YEAR

*Reprinted from the Report on the State of the Militia
for the year 1872.*

The results already attained by the establishment of the Schools of Gunnery at Kingston and Quebec, (A and B Batteries) are very satisfactory.

These Schools of practical and theoretical Artillery Science were established under the system detailed in General Orders, October, 1871, (a copy of which will be found in the Appendix); none are admitted to these schools for duty and instruction except duly Gazetted Officers or enrolled non-commissioned Officers and men belonging to some Corps of the Active Militia.

The periods of admission to the Gunnery Schools are for three and twelve months, and a limited number of Officers and men may be re-admitted for a further period, if it be found necessary to do so, in order to maintain a sufficient staff and nucleus for carrying on the instruction and duties.

Whilst attached to the Schools of Gunnery (A and B Batteries) for duty and instruction, all officers and men are under the rules of military discipline as prescribed in clause 64 of the Militia Act, and thus Artillery Schools, as real as Corps of the Royal Artillery itself, have been formed for Garrison duty as well as for theoretical and practical instruction in Artillery Science.

Although the Kingston School of Gunnery (A Battery) has only been in operation for about 16 months, and the maximum authorised strength, at any time, limited to 4 officers and 131 non-commissioned officers and men, the Commandant reports that 12 officers and 223 non-commissioned officers and men have joined that School since its formation, and about 30 more are at this date (17th March, 1873) waiting for admission.

8 officers have obtained first class certificates and two officers a second class certificate; 7 first class and 8 second class certificates have been given to non-commissioned officers and men; no certificates have as yet been given to any of the men at present at the school, but they will of course be entitled to receive certificates according to professional merit on passing the necessary examination in Artillery Science before they leave the School.

The Commandants of the Gunnery Schools have been very particular in granting certificates. It is indispensable that an officer in any arm of the Military Service should have some education, and no certificates should be given to any one who cannot write correctly from dictation, and show a reasonable knowledge of arithmetic.

LCol G.A. French reports that although "A" Battery (School of Gunnery) has to perform nearly as many duties at Kingston as formerly devolved on a Regiment yet 80 officers and 186 non-commissioned officers and men have received instruction here during the year ended October 26th, 1872, the periods of instruction varying from two to 12 months, the majority being for the latter period.

On the conclusion of the first year, on the 26th October, 1872, a proportion of non-commissioned officers and men who had completed 12 month's course of instruction, and who were desirous of readmission for a further period, being *good characters, and desirable men in other particulars*, were readmitted. This system is being continued, and, if carried out systematically and with judgment, will have the effect of securing eventually, to the service of the Dominion, a picked body of first class artillerymen either for duty or instructional purposes.

LCol T.B. Strange, the Commandant of the Quebec School of Gunnery, B Battery, reports for my information as follows:

"The examination papers submitted—marked A, B, C, D, E, G, H, I, J, K—and published in appendix show that the practical and theoretical course of instruction of the officers, and the small number of sergeants who were able to avail themselves of it, has been of an advanced character, including the following subjects:

"Artillery drills and exercises, garrison and field gunnery.

"Artillery material, including the examination and sighting of ordnance, laboratory, &c.

"Minor tactics and military history.

“Fortifications and sieges.

“Rough military surveying, with pocket compass and sextant.

“I beg to suggest an artillery certificate, applicable to the higher course of study, in addition to the present gunnery certificate.

“I have much pleasure in expressing my entire satisfaction with the intelligence and application, as well as with the natural military qualities *shewn* by the officers who have passed through my hands.

“The duties of all ranks have been performed to my satisfaction, and the absence of actual crime, with the exception of drunkenness, which, however, has greatly decreased, is encouraging.

“The most obviously advantageous method of utilizing scientifically-trained officers during peace is that adopted in the United States, where a large proportion of those educated at West Point are employed on public works.

“The gigantic railroad, canal and boundary surveys undertaken by the Canadian Government give ample scope for the employment of assistant military surveyors and engineers, who would thus form the nucleus of a practically scientific staff corps, whose intimate knowledge of their own country, and the maps they would construct, would be of incalculable value in the event of war, and useful in peace. These services are at present, in some instances, done for us (and I have no doubt with great ability) by foreigners, whose knowledge of our country might not always be to our advantage.

“It would be very desirable that a party from the Gunnery School should be attached as assistants to the Royal Engineers on the boundary survey. When the latter return to England, their Canadian assistants would have acquired sufficient skill to become the nucleus of a Canadian staff corps of engineer surveyors.

“Royal Artillery and Engineer officers are educated together, and their training now covers the whole ground of important subjects taught at the Staff College, Sandhurst; artillery, infantry, and riding drills are already taught at the gunnery schools as well as rough military surveying.

“On the 5th August, the services of the battery was rendered on the requisition of the Mayor and Sheriff (who both attended in person), during the elections at Quebec. The battery was formed as infantry, with a mounted detachment as troopers, to clear the streets.

“I reported the circumstance to the Deputy Adjutant General commanding No. 7, Military District, from whom I had received an order to turn out. I was subsequently directed to send a detachment to Montreal for the same purpose; and in the month of September, 1872, to send an officer and twenty-five (25) non-commissioned officers, gunners and drivers, with two 7-pounder muzzle-loading rifle guns and their equipment, for service in the Province of Manitoba. Thirty-nine (39) volunteered: the surplus were taken as infantry. They were a remarkable fine body of intelligent and trained soldiers including many artificers.

“The number of horses—eight (8)—is inadequate for instruction in field artillery movements. Forty (40) horses would be sufficient for a permanent instructional field battery and riding establishment, especially if officers going through courses were given forage for their own horses, as allowed last year for the cavalry school, such horses being available for gun draught. The artillery horses might, under these circumstances, be able to perform the transport and fatigue duties for the store and supply department driving *waggon*s being almost as good practice as driving guns. A considerable saving of money would be the result, combined with efficient instruction, and a field battery always ready for service, which, during annual training at camps or on emergencies, might be distributed among the field batteries, to whom the addition of a few well-trained wheel and lead drivers, with their horses would be invaluable.”

“The gun practice of “B” Battery was carried on from King’s Bastion, Citadel, at a target on the ice. Artillery marksmen having been selected in accordance with the system submitted for your approval, the results were published in general orders and *shew* a high figure of merit, combined with quickness in laying heavy guns. Mortar practice was carried on from the Lewis curtain.”

With regard to the Military Schools of Canada I think it will be generally admitted that the time had arrived to establish such schools on a more efficient basis, and this, it will be seen, has been done very effectually as regards the Artillery.

THE QUEEN'S PRIZE: 1896

Although the National Artillery Association competitions had begun a number of years earlier, no Canadian teams competed until 1881. In that year LCol W.R. Oswald of the Montreal Garrison Artillery had suggested Canadian participation to the Dominion Association and had supplemented his suggestion by a large personal subscription. The team, under command of LCol Oswald, won renown in repository drill by downing the Woolwich Arsenal team to bring home the Governor General's Prize.

Again, in 1883 a team commanded by LCol A.H. MacDonald of Guelph and in 1886 a team led by LCol Armstrong of St. John N.B. upheld the Canadian reputation in repository drills by winning the Governor General's Prize.

The 1886 team also won two firing competitions, the Londonderry Cup and the Merchants of Montreal Cup which had been taken to England in 1884 by an English Volunteer team which had taken part in the Canadian competitions at the Isle d' Orleans. The British team also captured the Queen's Prize for that year.

After 1886 there was no further competition between British and Canadian teams, nor was much consideration given to continuing these visits until 1895 when LCol Minden Cole of MBGA pressed for renewed Canadian participation.

Serious consideration was given to the matter by the Dominion Artillery Association, but at the Annual Meeting held during February 1896 in Ottawa, Maj Donaldson, Secretary-Treasurer, gave a report which "regretted funds were not available to send a team to the competitions in August". The Association Council, in their report, recommended the formation of a committee to consider the revival of the practice of sending a yearly team to Shoeburyness.

MGen Gascoigne, in his address to the meeting, clearly outlined the extent of the official support by requesting to be allowed to head the subscription list. Inasmuch as the Association did receive an annual grant this attitude was not unexpected.



The Canadian Team which took part in the National Artillery Association Meeting at Shoeburyness in 1896.

On the eighth of April an extraordinary meeting of the council approved a draft proposal for sending a Canadian team. Total expenses were expected to be about \$3,700.00 of which \$2,000.00 would be contributed by the Association with each unit sending a representative contributing \$75.00 towards general expenses. It was stipulated that selection was to be made from the militia and not from the permanent corps. A final proposal, accepted on 15 April, indicated that the team would consist of a Commandant, Adjutant, one Sergeant-Major and 25 NCO's or mer. The Sergeant-Major and three of the OR's were to come from the permanent force. There were specific allocations to each unit but not all were able to fill their vacancies. Personnel selected, as well as being competent gunners, had to be 5 ft 8 1/2 in tall, not less than a 36 in chest, and weight not less than 160 lbs nor more than 200 lbs; age between 22 and 35 (see footnote 1).

Selection for membership was not taken lightly and those appointed carried the honour of their units. They were feted in their appropriate messes and their departure to join the team at Quebec was made the occasion for a full regimental parade.

Fifteen days were spent at Quebec rounding out the teams and getting the men used to working together. From 0630 to 0730 they worked with 64 pounders, from 0900 to 1200 and 1400 to 1600 in shifting ordnance, alternatively mounting and dismounting 9 pounders, and working with disabled field guns. There were three days of firing practice on Isle d'Orleans.

The team sailed from Quebec aboard the S.S. Lake Ontario. One third of the men were from the Field Batteries and were only partially trained in infantry drill. The fine weather allowed daily drill practice so that when the team disembarked at Liverpool on the morning of 25th July, the detachments had reached a very creditable level of drill.

The party was met by a deputation from the Liverpool Volunteer Artillery and the band of the Royal Naval Reserve played them to the special train provided by the London & N.W. Railway. On arrival at London they were met by the Secretary of the N.A.A. and other officers of the Volunteer Artillery who drove them to Mansion House where the Lord Mayor, Sir Walter Wilkin, welcomed them. The Lord Mayor, at a luncheon for all ranks, handed LCol Cole a permit to march through the City of London with fixed bayonets, an honour which LCol Cole was pleased to accept. After lunch in full marching order, with bayonets fixed and with a police escort the team marched to the Fenchurch Street Depot to board the train for Shoeburyness where they arrived at 1815 to find all in readiness for their arrival.

During the first week of camp, before the other competitors arrived, the team worked through the drills three times daily commencing at 0600. Particular attention was paid to 64 pdr guns on naval slides, a pattern entirely new to the team. That work was directed from an 80 foot conning tower. LCol Cole and his range-taking detachment received ample physical exercise rushing up the 90 odd steps in order to have the DRF (depression range finder) properly adjusted within the time limit.

The teams from Scotland, Guernsey and England began arriving on Saturday the 1st of August and by evening that day, over a thousand officers and men had arrived to take part. During the week that followed, work began at 0500 and the whole of the competitions was completed without delay or confusion. Despite some misinterpretation of the rules, the Canadians, resplendent in their white jerseys emblazoned with a large green maple leaf, did well in all competitions.

In the repository competition, the team dismounted and removed a 64 pounder to a new carriage in 14 minutes 49 seconds to win on the time element by 8 points over the 4th Durhams. The Durhams however achieved a lead of 11 points on drill to win the Governor-General's cup 226 to 223. The Canadians had been expected to continue their supremacy of other years in this competition; however, the Durham team was largely the same detachment who had won the competition for the previous two years. The team-work of the Durhams was said to have been magnificent to watch and in the opinion of many, in losing by only three points, the Canadians had in fact upheld their reputation.

Although the Canadians had not used 16 pdrs (their work in Canada being done on 9 pdrs) and although the moving targets of infantry and cavalry charging towards the guns were a novel sight, the team, with a score of 237 points, captured the Queen's Prize consisting of the cup, individual badges, and £110 to be divided among the men.

With a score of 74, four points below the winner, they captured 7th place in the Harcourt Challenge cup as well as placing 3rd in the Garrison Artillery moving target prize.

In the week that followed the competition, the team was lavishly entertained by a magnificent banquet at Kings Hall, Holborn, a special tour of Woolwich, the principal theatres, Tower of London, The Royal Mint, St. James and Buckingham palaces. While at Windsor they were, on Her Majesty's order, accorded special privileges. During this period the men were quartered at St. George's Barracks and were rationed by the WO without cost.



The Queen's Prize Cup of 1896, presently held in the RCA Officers' Mess at CFB Shilo.

On their return to Canada, the team members spoke very highly of their treatment and more than one commented on the absence of ill feeling among the losers, and the enthusiasm shown towards the Canadian team.

British teams were invited to attend the Canadian competitions in the following year. It was impossible for them to attend and it was not to be until 1907 at Shoeburyness that they were to meet again in National Association competition.

Footnote 1

The National Association competitions were not open to teams from British Regular units, and a number of Canadians took great exception to the inclusion of the Canadian regulars. The Dominion and National Associations had agreed to the team competition in 1881 and in judging of the fairness it must be considered that the British Volunteer system provided regular instructors for each Brigade. Teams were chosen from Brigades of nearly 1000 men which trained on a year round basis, not for thirteen days as did the Canadian Batteries.

In 1886 the semi official voice of the Volunteers, The Volunteer Service Gazette of the 14th of August noted: "The appearance of the Canadians ought to put our men on their mettle. We are quite aware that the former are picked men — and are picked, moreover, in a way in which it could never be possible for us to pick a team to go to Canada or any other colony. But even allowing for this we must say that we have seldom seen such a body of soldiers as the Canadian artillery men who have just left Shoeburyness".

The Dominion Artillery Association's intention in the method of selection was to spread the benefits of the competition as broadly as possible throughout the whole of the Canadian Artillery. To the British, the teams were tangible evidence that the Dominion continued to consider itself part of the Empire and was making progress towards its own defence.

The Canadian Team: 1896

LCol Cole, 2nd Garrison Artillery, Commandant
 Capt Myles, Toronto Field Battery, Adjutant
 Sgt Instr Bridgeford, RCA Quebec. Team SM
 Bdr Nott W., RCA Quebec
 Gnr Rousseau J., RCA, Quebec
 Gnr Bramah A., RCA, Kingston
 Sgt Marshall J.H., 1st Regt CA., Halifax
 Sgt Theakstone W.H., 1st Regt CA., Halifax
 SM Fellows W., 2nd Regt CA., Montreal
 OM Sgt McGuinness W.A., 2nd Regt CA., Montreal
 Sgt Morrison A.P., 2nd Regt CA., Montreal
 Bdr Dickson J.J., 2nd Regt CA., Montreal
 Sgt Gillis R.W.E., 2nd Regt CA., Montreal
 Cpl McGowan J.T., 3rd Regt CA., St John, NB
 Bdr Pollock J.A., 3rd Regt CA., St John, NB
 Sgt Sprague M.H., 4th Regt CA., PEI
 SM Cornish J.C., 5th Regt CA., Victoria, BC
 Sgt Thomas A.J., 5th Regt CA., Victoria, BC
 Bdr Lettice W.H., 5th Regt CA., Victoria, BC
 SM Van Horne A.K., Yarmouth Co., Yarmouth
 OM Sgt Hood T.A., 2nd Fd Bty, Ottawa
 Cpl Weir, 2nd Fd Bty, Ottawa
 Sgt Balfour R., 7th Fd Bty, Welland Canal
 SM Spry J., 9th Fd Bty, Toronto
 Sgt Lawlor T.W., 12th Fd Bty, Newcastle
 Sgt Spence T.C., 16th Fd Bty, Guelph
 Sgt Wilkinson, 16th Fd Bty, Guelph
 Sgt Warring J., 4th Fd Bty, Hamilton

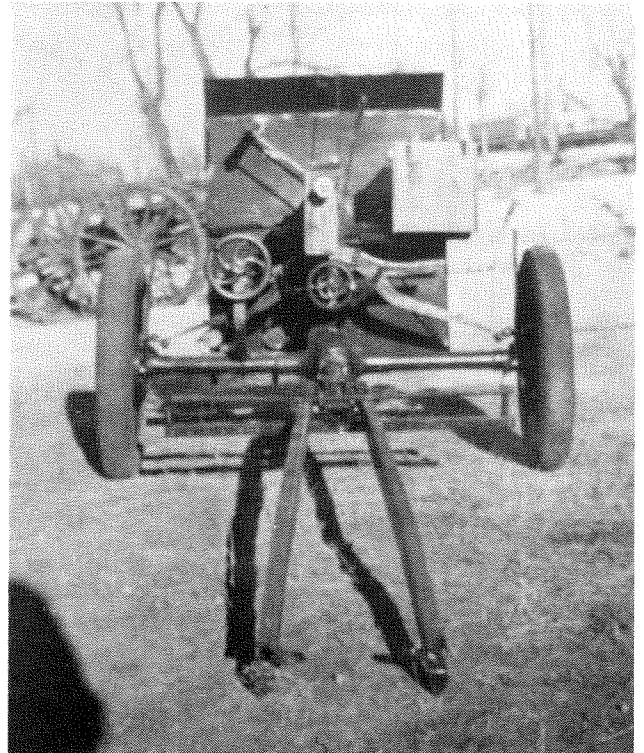
5TH CANADIAN ANTI-TANK REGIMENT

Lieutenant Colonel E. C. Scott (Ret.)

The versatility of the Canadian Soldier has been recognized in two World Wars. It has been no more emphasized than in the many roles performed by the 5th Canadian Anti Tank Regiment which formed part of the 4th Armoured Division in World War II. This regiment concentrated with the rest of the divisional artillery at Sussex, N.B. in February 1942. The 3rd Battery from Ganannoque, Ont., the 65th Battery from Grenfell, Sask., and the 96th Battery from Edmonton, Alta., joined together to comprise the regiment. It was formed under the watchful eye of the late Brig G.O. Hutchison OBE ED, who had returned from England with five other officers to form the regiment and return overseas with the 4th Canadian Armoured Division. The mobilization of the regiment had been authorized by National Defence Headquarters on September 10th, 1941, and although each battery was mobilized in its own area, it wasn't until February 1942 that the regiment actually came into being. A fourth battery, the 14th, was formed in England added to the regiment in February 1943. The firepower of the regiment was terrific. In addition to two self-propelled batteries of twelve 17 pounder guns each, and two towed batteries with the same number of guns, it had twenty-four heavy machine guns, one hundred light machine guns, mortars, and small arms consisting of Sten guns, rifles and pistols.

The 65th Battery from Grenfell showed its versatility early in the game by making a 2 pounder gun. Maj W. Ashfield the original battery commander conceived the idea, and assisted by some of the local towns-people proceeded to build it. The gun was used by the battery to learn gun drill as no actual weapon was issued until the regiment concentrated in Sussex, N.B.

The gun had a wooden barrel, was mounted on a model-T rear axle and wheels, and was provided with a split trail. It had a semi-automatic breech mechanism and other working parts so that gun drill might be properly carried out on it. Practice rounds were made out of baseball bats. When the battery joined the rest of the regiment at Sussex, N.B. this formidable weapon was loaded on a boxcar and taken along. What happened to this mock-up gun was never known but we suspect some high-ranking Ordnance official from National Defence Headquarters put it on the secret list. If available today it would make a wonderful addition to the War Museum in Ottawa.



The 2 pdr constructed by 65th Bty.

ARMoured CARRIERS

In its normal role of anti-tank fighting, the self-propelled batteries normally worked with the 4th Canadian Armoured Brigade and the towed batteries with the 10th Canadian Infantry Brigade. The first variation from this normal role came south of Caen on August 7th and 8th 1944 in *Operation Totalize*. LGen G.G. Simonds, the Corps Commander, stripped the Division of all American half-track vehicles to carry infantry. As Col Stacey in the Campaign in North West Europe states "Each assaulting Division formed its advanced group in two, tight double columns, each consisting of two infantry battalions or equivalent units in armoured carriers...". 5th Canadian Anti-Tank Regiment provided some of these armoured carriers.



A detachment drilling on the 2 pdr.

The next and last occasion when the regiment supplied armoured troop carriers was in *Operation Blockbuster* on February 26th 1945 in the drive to the Rhine. The towed batteries were by now equipped with Crusader tanks as gun towers. These, with the drivers, were loaned to the assaulting formations, as the muddy state of the ground prohibited towing the guns. The towers were used to get the infantry through heavy fire on to their objectives and were then employed to move casualties and supplies. Some were lost by direct hits and some were disabled by mines, but sixteen survived and much credit for the success of the operation rests with the drivers. One of them, Gnr R.J. (Bob) Fenske of the 65th Battery, (now a Battery Sergeant Major with the Royal Canadian Horse Artillery) was awarded the Military Medal for his part in the operation.

COAST DEFENCE

In November, I Troop of the 96th Battery was deployed in the harbour of Bergen-Op-Zoom to cover the sea approaches against "E" Boats and "U" Boats. Here the name "Any-tank Regiment" was pinned on us. Fortunately for Jerry, or perhaps for us, the troop had no occasion to engage the enemy.

ENGINEERS

During the first week of March 1945, in the push to the Rhine, all available personnel of both the 3rd and 65th towed Batteries were fully employed in building roads out of the remains of the German ones using rubble and timber from ruins of buildings. This group contributed to the communications facilities by helping in the conversion of several miles of railway through the Hochwald Forest into a serviceable road. Much of this work was done under shell fire but the task was completed with speed and without casualties.

FIELD ARTILLERY

During the winter of 1944-45 the regiment took part in the "Watch on the Maas". The M10's of the self-propelled batteries did some indirect firing. Early in 1945 the towed 17 pounders were modified by the Light Aid Detachment of the RCEME with the addition of dial sights, which gave them the capability of indirect firing. We brought in a troop of four 17 pounders and not having any sight-clinometers or range drums to put on the angle of sight and range, we had to borrow the "Gunnery

Quadrants" or field clinometers from the American made M10's. The angle of sight was of little consequence as the ground was as flat as the proverbial pancake. We added an extra column to the range tables and instead of "adding 200" we had to give the range afresh each time in mils, put it on the quadrant, lay it on the breech block, level the bubble and fire. We had a great deal of fun doing this and taking on targets of any kind on the German side of the River Maas. Our enjoyment was short lived however, as the push to the Rhine required all our efforts and on February 19th the regiment was relieved by the 52nd Lowland Division Anti-Tank Regiment and we then concentrated preparatory to moving into Germany.

INFANTRY

The 4th Canadian Armoured Division held the south bank of the River Maas as far east as Lith. The principal activity, as outlined by Col Stacey in *The Victory Campaign*, was patrolling and observation of the enemy.

On November 8th 1944, the commanding officer, LCol D.S. Harkness (member of parliament for Calgary Centre since the end of the war) informed us of our new role as infantry, and that we would be covering five miles of front on the River Maas. We were to relieve the 11th Hussars (The Cherry Pickers) of the British 7th Armoured Division, known as the Desert Rats. On November 9th, contact was made with them and arrangements for the take-over completed. The 14th and 65th Batteries were to take over in the villages, of Lith, Kessel and Maren and Regimental Headquarters was to be at Lithoijen.

When we took over we found that the Cherry Pickers were pulling their men out of the villages at night, and so the commanding officer decided that we wouldn't do this, but would man posts on a twenty-four hour a day basis. Then, on November 13th, we started patrolling on our side of the river as far as Wild. On November 16th, Lt Archie Barclay, took out a patrol at 0300 hours and soon came back with two prisoners.

As a morale booster and to ward off the chill from the damp and cold, rum rations were prevalent. One gunner, after we pulled out for a rest, was found plastered and it turned out he had saved his rum ration for two weeks and then drank it all at once.

Patrols were carried out nightly by all batteries when their turn came to be in the line. The troops took readily to it and were happy to have some activity which brought them in contact with the foe.

The Lake Superior Regiment, the Motor Battalion of the Division, was on our left and several patrols went out to contact them during the night with no luck. Finally on the night of November 19th contact was made. On this same date a Divisional Intelligence Officer brought us a Dutch interpreter. He had been in Germany for three years, having been taken prisoner when in the Dutch Army in 1940. We fixed him up with battle dress and took him into our confidence. Before many days had passed, however, we found out he was a German agent and he ended up in the POW cage. There was no criticism of our part as Division had given him to us.

While some batteries were doing the infantry job, the self-propelled batteries were doing a bit of indirect firing. Tom of Lith, head of the Dutch underground (about whom more will be said later) had men crossing the river continually, and brought us back information on how effective the fire was. The enemy retaliated occasionally with 155 mm guns but no damage was done. The FOO from 15 Field Regiment did a little counter-battery firing at this stage of the game.

One Dutch civilian who had crossed the river was picked up by our men. He was from The Hague and gave us quite a bit of information about German positions which was passed on up the line.

On November 26th we were relieved by the 54 Anti Tank Regiment of the 52 Lowland Division and we moved to the S'Hertogenbosch area. During this infantry inoculation, five men of the 14th Battery were wounded by a Gerry patrol which had infiltrated to their position in Maren.

On December 12th, we again moved back to the Lith-Maren area to carry out an infantry role. This effort didn't last long and on December 21st we moved to a monastery near Vught, since the division was being placed in Army Reserve on six hours notice to move. This stay was brief and on December 24th we moved to the Breda area, the move having been brought about by the German offensive in the Ardennes, and it was thought that the enemy would come across the river, or at least try to do so in an attempt to get to Antwerp. Christmas dinner was a bit of a hurry up affair but each battery made an effort to follow tradition and one battery set up tables and benches in a bombed school-house and served it as best they could.

It was at this time that we received Crusader tanks as gun towers for the 17 pounders so we had to set up a driver training school to train the men on these new machines. Only roads cleared of mines could be used and it wasn't long before the drivers were adept at handling these new towers.



Members of Maj Van Murick's underground.

On January 8th 1945 the regiment again returned to the infantry role. We relieved the Poles this time at our old stand on the River Maas. They had been holding the line while 4th Canadian Armoured Division was at Breda ready to forestall any attempt by the enemy to strike south to Antwerp.

Periodically civilians came from the northern part of Holland and crossed the river to safety. Unfortunately one of them dressed in white sheets had evaded the Germans and got as far as their side of the river bank. Our chaps thinking he was a German shot him when he was one hundred yards from freedom. A patrol went over the river during the night to bring him back and this is when we found out he was a civilian. He was buried in the local churchyard at Maren.

During our sojourn on the Maas we were fortunate in having in the area the local burgomaster, Major I.R. Van Murick, affectionately known as Tom, who was head of the Dutch underground in the area. He provided us with a considerable amount of information and even sent his men out with our patrols as guides. We provided them with boots and snow suits and the fact that they would have been shot if caught did not deter them. These brave people provided us with much information, and we discovered later that eighty percent of the information

from the whole Division was coming from our sector. Their assistance was so great that the Divisional Commander, Major General Chris Vokes, made a special trip to Regimental Headquarters to see Tom and discuss matters with him.

German patrols came across the river when we first went into the area but as our patrol activity increased this invasion of our territory dropped off to a trickle.

Army efficiency being what it is, after all this first-hand experience in infantry work and patrolling, including river-crossing, a lieutenant from the Lake Superior Regiment was sent to us to give a course in infantry tactics. There is no doubt that this instruction helped us considerably but having been doing the infantry role on and off for over two months, a great many of the lessons had already been learned the hard way. One officer, Lt J.F. Hargrave, was awarded the MC for his part in patrolling and bringing back information.

On February 21st 1945 the regiment left Holland for Germany to a concentration area south of Cleve. Other than the roles of armoured personnel carriers, engineers, and armoured recovery, the regiment carried on its' normal role until peace came on May 8th.

UBIQUE — A CENTURY OF SERVICE

At 1330 hours on 20 October 1971, the crisp boom of a 105mm howitzer, echoing across the airfield at Lahr, West Germany, signalled the commencement of the one-hundred gun salute commemorating the 100th birthday of the formation of A and B Batteries Royal Regiment, and brought to a fitting climax months of planning and preparation.

On the reviewing stand to take the salute from the centennial batteries and the remainder of the First Regiment stood LGen G.G. Simonds, CB, CBE, DSG, CD one of Canada's most distinguished soldiers and a renowned gunner. To his right stood MGen H.A. Sparling, Colonel Commandant of the Royal Regiment of Canadian Artillery while on his left, RSM John Gilpin (Retired) represented all the past members of 1 RCHA. (John Gilpin was Gen Simonds' RSM during his tour as CO 1 RCHA.) The Centennial salute and parade were only two of the many events held during Centenary Week in 1 RCHA. Planning for the celebrations began with

the appointment of Maj Bob Thompson as Chairman Centennial Planning Committee. From the onset, the planning was guided by the aim which was to produce a coordinated series of events, which could be worthy of the event. A decision was taken to invite special guests by their appointments, ex-commanding officers and their wives, ex-RSMs, and sister regiment commanding officers and wives. The programme was organized to provide sufficient free time to our guests for relaxation and individual activities and contained an appropriate balance between formal and informal occasions.

Our guests arrived by service air on Monday, 19 Oct, at 1215 hours. Following the salute fired in honour of the senior guest, LGen Simonds and MGen Sparling inspected the 50 man guard of honour. After the inspection, the guests enjoyed informal luncheons hosted by the CO, LCol Stein and the RSM, CWO Macdonald.





L to R: LCol HJ Stein, CWO Macdonald, LGen GG Simonds, and MGen HA Sparling inspecting the guard of honour.

The bright sunny weather which prevailed all week was a fitting backdrop for the guests to sit back and enjoy a guided bus tour of the Lahr area and the SCHWARZWALD (BLACK FOREST). The land of thatched roofs and cuckoo clocks has many attractions and our guests were provided an opportunity to see as many as possible.

Morning on 20 Oct 71 dawned grey and threatening but by ten o'clock the lucky weather had returned. This was the day for which many people had been eagerly waiting; the members of the First Regiment, their dependants, our guests from Canada, allied guests from across Germany, all our friends in Lahr. The Centennial Parade was somewhat unique with a large variety of uniforms. No. 1 was worn by the CO and BCs, and the remainder of the Regiment wore CF uniform. The Militia component wore battledress, TWs and Combat. Some 20 members of the Regiment were outfitted with the old artillery uniform, including the CO's trumpeter, ADC, standard bearers and the 12 pdr detachment. Full grown beards added a touch of authenticity to the 100 year celebration. Following a dismounted marchpast, MGen Sparling addressed the parade and introduced LGen Simonds. Gen Simonds' remarks on the value of the Regimental system were echoed that afternoon in the performance of the members of 1 RCHA (who had only returned three days previous from seven weeks training in Hohenfels). At the end of Gen Simonds'

remarks, the CO doubled the Regiment to its waiting vehicles and the Regiment rolled past to the Regimental marches. The roll past which included an AOF flypast brought many words of admiration from the assembled guests.

The evening of 20 Oct was marked by formal balls in the Officers' and Sergeants' Messes and a Jr Ranks Dance in the South Marguerite. During the course of the evening, several presentations were made. A highlight was the firing of a four gun salute using the miniature brass cannons brought from Canada by Master Gunner Sonnenberg. Another highlight occurred when LGen Simonds, in a spontaneous gesture, presented his General Officer's Sash to the Regiment. This sash was worn by MGen H.A. Panet when he was the first Commanding Officer of the RCHA Brigade in 1914 and was presented to LGen Simonds on his appointment as Chief of the General Staff.

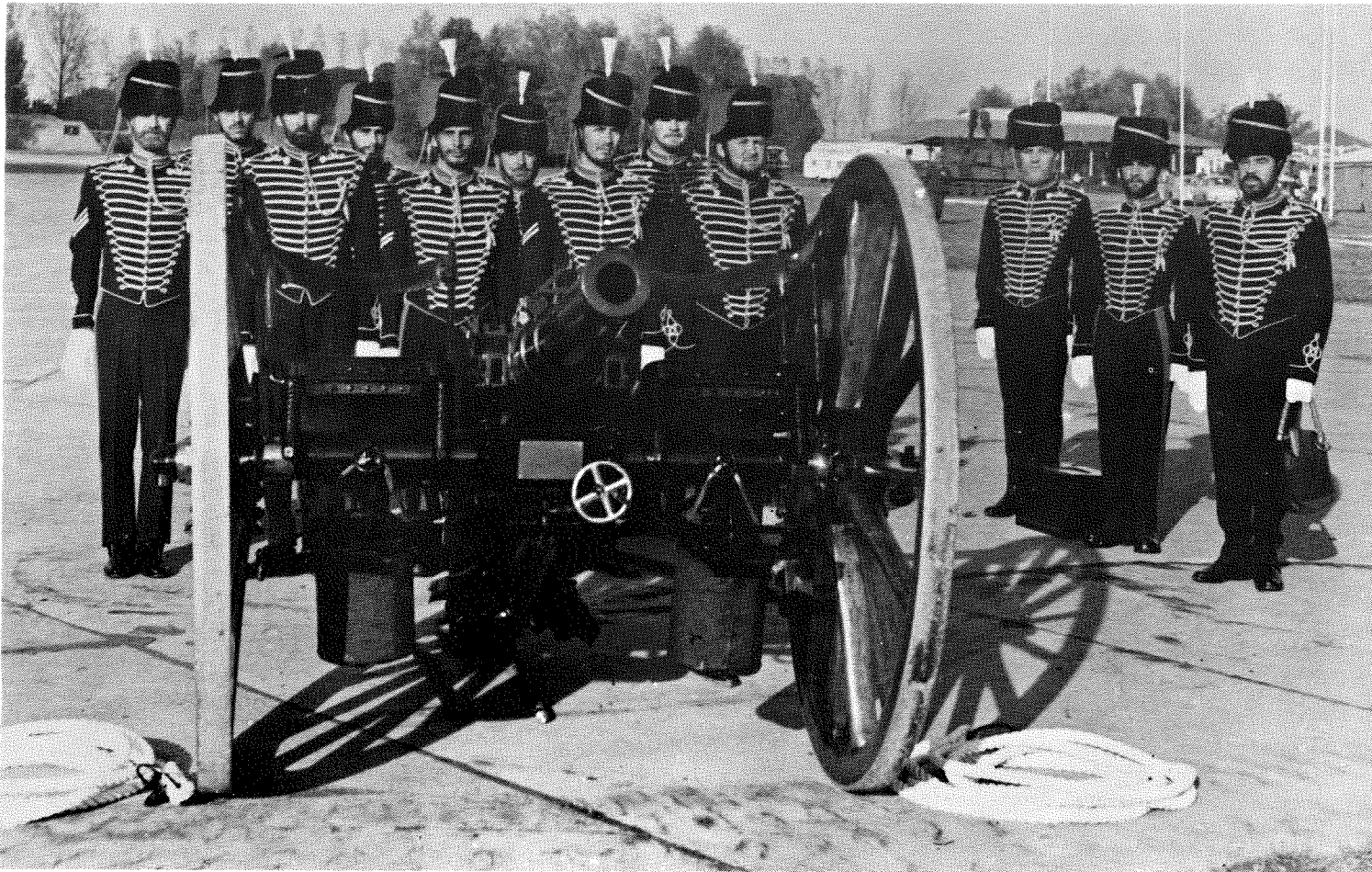
Thursday was reserved for our guests, members of the Regiment and their dependants to relax and have fun. The afternoon was filled with contests of all types (cooks, signals, AOP, recovery crews, veh techs, etc) and novelty events including the 12 pounder detachment and a sports parachuting demonstration.

After a few hours for rest, all returned to the South Marguerite for an authentic German SCHUTZENFEST complete with UMPAH band and "beer fraus". The guests really enjoyed themselves at this party and many left much later than originally planned.

The beerfest marked the end of the official Centennial timetable. With all day Friday and Saturday morning as free time, the guests were able to take advantage of the opportunity to shop and tour in some of the nearby towns. Others visited with relatives in the Lahr and Baden area. On Friday evening, the guests were hosted for dinner at the home of MGen Leonard, Commander, Canadian Forces Europe, whose hospitality throughout the Centennial Week was deeply appreciated by the members of 1 BCHA.

With some sadness, guests and members of the Regiment gathered at the air terminal for a noon departure on Saturday 23 Oct. The five days had gone too quickly. The drama of the moment was heightened by the arrival of the Governor-General on whose aircraft the guests were returning. To the strains of "Auld Lang Syne" played by a group from the Naden Band and who had appeared spontaneously to "pipe" our guests aboard, the official party led by the Director of Artillery Colonel D.A. Francis departed West Germany.

To those remaining on the ground, their minds were filled with memories; who could forget the spirited dancing of Gnr "Ginger" Guy, at 83 years of age, easily the "youngest" Gnr in attendance; the weeks and months of planning and preparation; ex-RSM John Gilpin's splendid rendition



The 12 pdr detachment. L to R: WO Wilson (No 1), Gnr Maggiacomo (No 2), Bdr Perrin (No 3), Gnr Price (No 4), Gnr Lachance (No 5), Sgt Carter (No 6), Bdr Scott (No 7), Gnr Bell (No 8), Gnr Teale (No 9), Bdr Ivey (Ammo), Bdr Gauthier (Ammo) and WO Perry (Gun Tiffy).

of "Where Are The Boys of the Old Brigade"; LGen and Mrs Simonds' graciousness which gave the celebration a regal air and the General's generosity in his presentation; our difficulties with German civilians over the erection of the beer tent; the instantaneous "time of flight" achieved by the twelve-pounder detachment; the glorious sun which shone all week; the maximum effort put forth by our men to prepare the equipment the pre-

vious weekend; the pride in the faces of the ex-Commanding Officers as the Regiment rolled past; the laughter in the faces of our children on the Fun Day; the appreciation of all our guests which was expressed so warmly on so many occasions; and above all, the comforting feeling of belonging to a family whose tradition stretched back for 100 years and whose spirit looked to the future with hope and enthusiasm.



The guests of 1 RCHA during Centennial Week. L to R: BGen HE Brown, LCol F McCordick, Mrs DB McGibbon, Mrs HE Brown, Maj DB McGibbon, Gnr GW Guy, CWO Vidler RA, Mrs GW Guy, CWO Klenavic JJ, CWO Gilpin, Capt JF Simard, CWO (Master Gunner) Sutherland, Mrs EC Plow, CWO (Master Gunner) Sonnenberg W, MGen EC Plow, LCol JJA Doucet, MGen HA Sparling, Mrs JJA Doucet, Mrs HA Sparling, Mrs B Shapiro, LGen GG Simonds, Mrs GG Simonds, Col B Shapiro, Mrs WAB Anderson, LGen WAB Anderson, CWO Vallee LJ, Mrs DW Francis, Mrs MD Calnan, Mrs JOV Menard, LCol MD Calnan, Col JOV Menard, Mrs NW Reilander, Col NW Reilander, Mrs CR Simonds, LCol CR Simonds, LCol HJ Stein, Mrs HJ Stein.

NOTES FROM THE CP LOG

ANNUAL CFHQ ERE GUEST NIGHT

The annual CFHQ ERE Officers' Guest Night was held in the CFB Rockcliffe Officers' Mess on 13 Oct 1971. This guest night allows gunner officers in the Ottawa area to renew old friendships and make many new ones as well as providing a vehicle whereby gunner officers who retired in the last calendar year are dined out. In the past, it has been traditional to hold this function in CFB Petawawa, and although 2RCHA again offered its facilities, the guest night was held in Ottawa as many members found it difficult to afford the time to travel to Petawawa. 2RCHA did provide a nine pounder RML and detachment, door attendants, additional dining room staff and regimental silver and china. This support was instrumental in providing the requisite gunner atmosphere. In addition to a cross-section of regular gunner officers there were twenty-eight retired gunner officers in attendance. This contingent was manned by such gunner stalwarts as Col B Shapiro, CD; LCol K Ewing, CD and LCol WH Salter, CD.

Guests included the Colonel Commandant, MGen HA Sparling, CBE, DSO, CD and sixteen officers who were retiring. These included LGen DAG Waldock CD, the senior regular gunner; Col JS Orton, MBE, MC, CD; LCol CR Baker, MC, CD; LCol JE de Hart, MC, CD; LCol DF Elkins, CD; LCol JW Hilliard, CD; LCol RN McKay, CD; Maj AW Curry, CD; Maj JD Currie, CD; Maj E Lash, CD; Maj J McGregor, CD; Maj TW Musgrave, CD; Capt AF Cameron, CD; Capt JR Hutchison, CD; Capt LG Ramsey, CD; and Capt JD Chown, CD.

After dinner MGen Sparling addressed the officers and presented retirement plaques. MGen Sparling expressed his optimism about the future of the corps and the Canadian Forces in general. His optimism was supported by LGen Waldock and the other retiring officers. A good time was had by all (the bar closed at 0400 hours) and all CFHQ ERE officers look forward to the next ERE Guest Night in the fall of 1972.

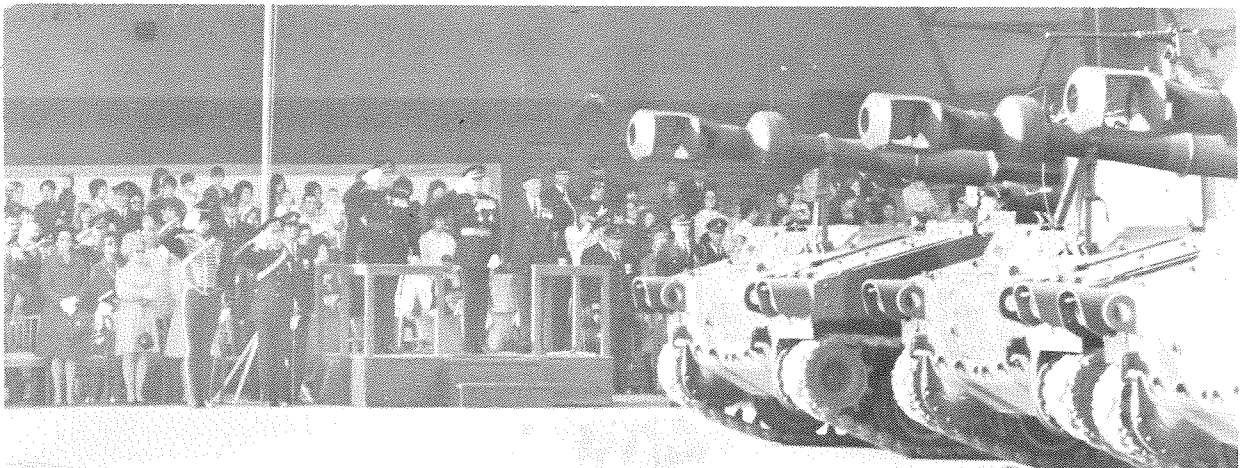


At left, MGen HA Sparling presents LGen DAG Waldock with a retirement plaque, and at right, Col DW Francis presents Col JS Orton with his plaque.

1 RCHA



Below, LGen GG Simonds takes the salute as E Troop rolls past.



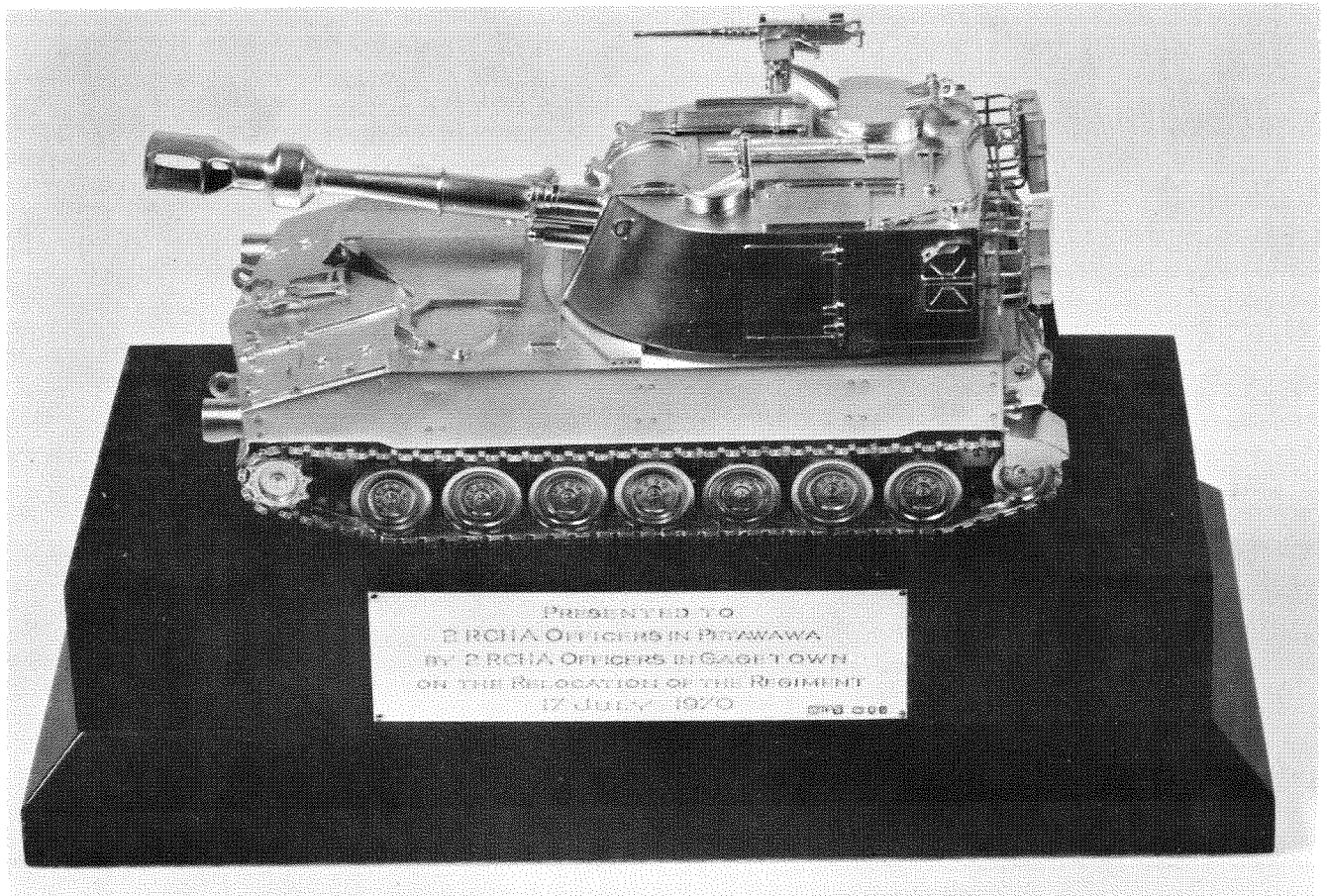


The number 4 detachment of C Troop in Mourmelon.

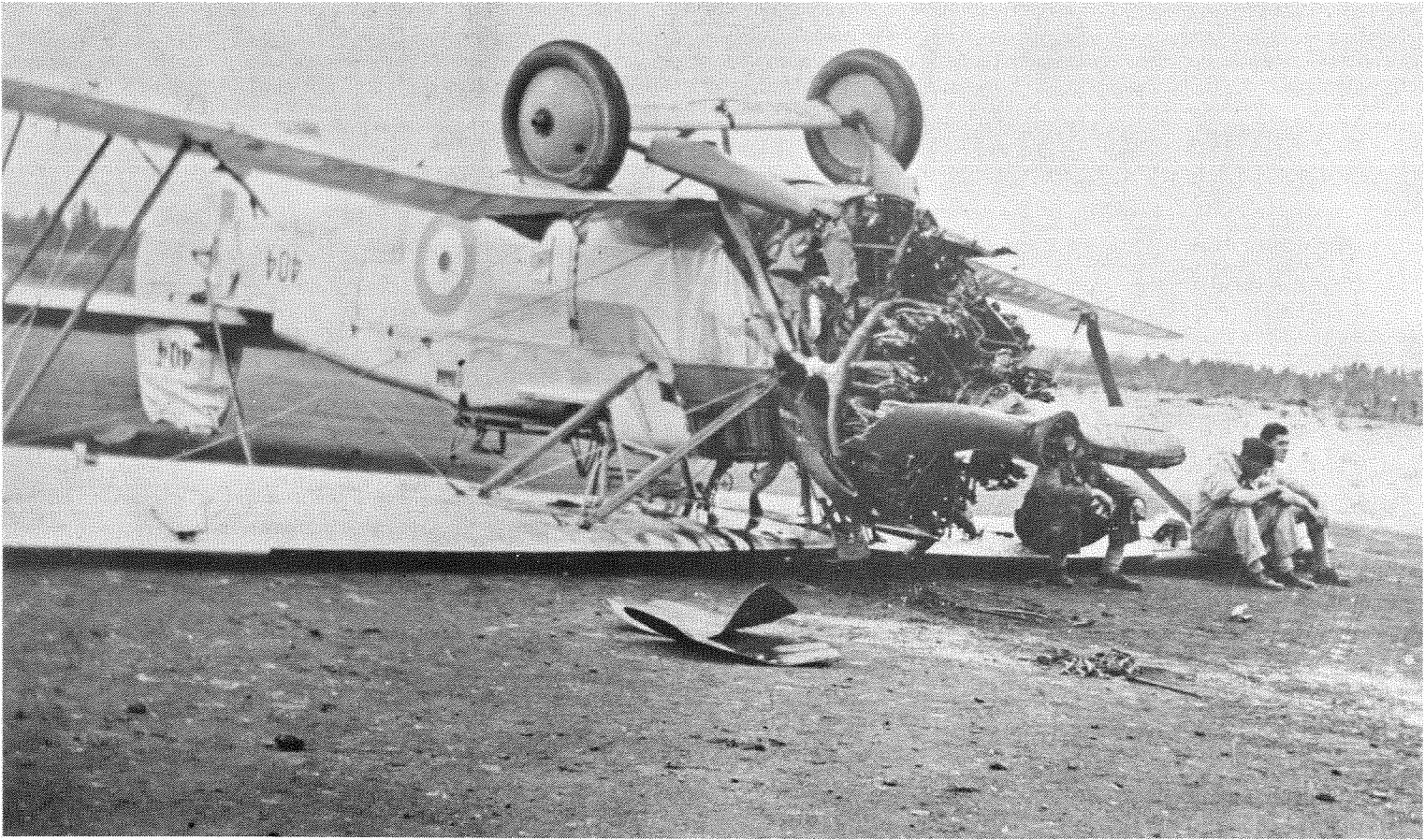


Sgt Wood GR (Militia) from Vancouver fires the third round in Mourmelon.

2 RCHA



L to R: Lt Harold Von Tempelhof, AMF(L) Artillery Liaison Officer; BGen Bosselman, Commander of German 2nd Corps Artillery; Maj EL Schrader, BC D Bty.



The Air OP Troop on parade with 427 Squadron for the first time.

3 RCHA



Maj FC Ayers presents LCol CR Simonds with "Winged Time" on the occasion of Air OP Troop becoming part of 408 Squadron.



L to R: Maj ME Rich, LCol WD Wellsman, and LCol CR Simonds observe as BGen CJA Hamilton signs the change of command cake.



Makes high marks when trying to leap buildings, is run over by locomotives...

1ST FIELD REGIMENT

The 1st Fd Regiment RCA(M) stationed in Halifax N.S. has its early history traced to Sept 1869 as the First Halifax Garrison Artillery. The Artillery regiment has been changed, redesignated, and re-organized through the years, and it was in December 1959 that the present 1st Halifax-Dartmouth Field Artillery Regiment was born and has been operational ever since.

The 1970-71 season started in early September with a massive recruiting drive. The unit set up static displays in public centers in the Halifax-Dartmouth area and showed the general public just what constituted the Artillery. Being very successful in this venture, the Regt settled down to more serious training such as Artillery Gun Numbers Courses, Artillery Technicians Courses, Communication Courses, Driver Training Courses.

The unit had its first taste of field life in October as all ranks converged on Camp Aldershot in the Annapolis Valley for training such as Command Post Drills, Dry Deployment of the troops, and OP Training. During this weekend training, on Saturday evening, the gunners relaxed for a few hours as the officers and NCO's hosted an all-ranks steak barbecue. A good time was had by all and the serious training started again at 0600 Sunday.

The Armistice Day Parade brought all ranks out for commemoration ceremonies. A saluting troop was sent to the top of historic Citadel Hill in Halifax to fire a 21 Gun Salute in honour of those who have fallen in past wars. The remainder of the unit, commanded by LCol J.W. Alward, paraded to Royal Artillery Park at the foot of Citadel Hill to hold their service at the Memorial Monument in the park.

The Christmas season slowed training down in December during School Holidays, etc, but all ranks managed a pay parade and unit smoker in mid-December at the Halifax Armouries.

Shortly after the start of the New Year, more field training was held at Camp Aldershot to sharpen up the various drills that the gunners need for firing of their 105 mm Howitzers. In early March, the 1st Field FMC Battery, Commanded by Maj D.A. Grant of Halifax, was airlifted to CFB Gagetown in New Brunswick to test their skills as gunners on the firing ranges with live ammunition. With a successful trip behind them, the battery returned home much more educated.

The spring and early summer months were taken up with very extensive training in preparation for the FMC Camp at CFB Gagetown and the annual Artillery Competition. During July, the unit sent the FMC Battery to CFB Gagetown and the results of the competition placed us 8th in Canada.

In May, the unit attended a church parade along with all units of the Halifax Militia District. A few weeks later, on 12 June, Armed Forces Day was held in the Halifax-Dartmouth Area. The 1st Field took a very important part in the program at CFB Shearwater. The saluting battery was sent out to fire a 21 Gun Salute in honour of the founding of A and B Batteries in 1871. After the salute, our guns were placed in a static display.

The 25th of September brought our Saluting troop to CFB Greenwood to participate in their Armed Forces Day celebrations. The troop fired an 11-Gun Salute to honour the arrival of Brigadier General H. Peters, Chief of Staff Logistics, Maritime Command. Also, the troop took part in an Infantry assault demonstration by firing blank rounds to simulate Artillery support.

26TH FIELD REGIMENT

The 26th was involved in several Ceremonial Salutes this year, the first of which was a 15 - gun salute in Winnipeg on 7 April to mark the opening of the Manitoba Legislature.

On the weekend of 17 - 20 April a tragic event occurred in the Sprucewoods Forest Reserve area, east of Shilo ranges. A five year old boy was lost, and when asked by the RCMP, virtually all of the personnel from 71st Bty volunteered to take part in the search. Rarely have the members of the Bty so diligently and co-operatively directed their

efforts. The true qualities of the up-coming generation were vividly demonstrated in the adverse conditions under which they worked.

During the May long weekend, personnel from both batteries participated in a combined District exercise, as well as live firing, in preparation and enthusiastic anticipation for the annual pilgrimage to the Militia Mecca at Wainwright. It was at this exercise that the "gravel crushers" and the "15-mile snipers" began grudgingly to appreciate each other's role. The armchair appraisal was

hilarious in retrospect from everyone's point of view.

The 26th, in conjunction with other units across the country, paid its respects to 1 RCHA and its Hundredth Anniversary by firing a 100-gun salute on 12 June.

No sooner had the July 1st holiday died down than we were boarding the troop train for the junket to sunny (?) Wainwright. The powers that be were good enough to arrange a whole skyful of storm clouds formed up in review order just as we pulled in to that thriving metropolis. It proved to be almost as rainy as last year; however we were attached to a tracked battery this time, and the novelty of rattling around the ranges all week in APC's helped to minimize any physical discomforts. Our second attempt at co-ordinating our efforts with the infantry's ran much more smoothly and we gained valuable insight from our two-day exercise.

We are proud of one of our gunners, Sgt Sowiak, who was selected for Fly-Over Training with 1 RCHA in Germany from July to October. The experience he gained has already begun to reveal itself in benefits to our Reg't.

October was a big month in the life of the regiment, and especially for 13th Bty at Portage la Prairie, for on 13 Oct 71, that Bty celebrated its 100th Anniversary - the oldest Bty in Western Canada. A Military Ball was held at Southport Officers' Mess on 16 Oct., at which a birthday cake

was ceremonially cut with a sword by the OC of 13th Bty, Major J.P. (Jim) Jeffries. On the following day the Regiment had a change of command parade at Southport, following Church Parade. We were ably assisted by the ceremonial hundred-man guard of honour, made up from the various Winnipeg militia units. They added a colourful touch to the celebration. The afternoon's festivities were concluded with a 100-gun salute to 13th Bty. LCol D.C. Brown assumed command of the Regt on the retirement of LCol D.M. Doig.

The annual Fall Live Firing Exercise and District Concentration was held on the Thanksgiving Long Weekend at CFB Shilo. The assistance of 3 RCHA is again acknowledged with sincere appreciation.

Remembrance Day was observed by the Firing Troop at a Salute on the grounds of the Legislative Building in Winnipeg.

Now for a light hearted projection for 1972. According to the 1970-71 training directive issued by a higher authority, which shall remain nameless, and recopied this year verbatim for the 1971-72 directive, one of the roles for the Militia is "to form a base on which the Regular Force could be expended in the event of an emergency".

We of the 26th Fd Regt, while wishing most heartily to comply with directives from our peerless leaders, are having a little difficulty formulating a training plan for this one. Maybe by 1984.....

30TH FIELD REGIMENT

The Ottawa Gunners began fall training in September 1970 well pleased with the appointment of a former C.O., Col Ben Shapiro, CD, as Commander Ottawa Militia District, succeeding Col L.E. Barclay, CD. Unfortunately, *Operation Genesis* - the change of command formalities - had to be cancelled when the Regular Force's *Operation Ginger* resulted in the occupation of the city's parade facilities. Maj K.G. Farrell left the unit to become SSO (Training) at District H.C., and was promoted LCol.

The unit fired twelve salutes in the first nine months of 1971. In addition, one hundred rounds were fired at Camp Fortune, P.C., to accompany the CBC Orchestra in performing Beethoven's *Wellington's Victory*. On this occasion, two troops representing the artillery of the French and the English forces fired on signals from the conductor of the orchestra.

Summer concentration at Petawawa during the last week in June 1971 was followed by an active summer for many unit members. SSEP Courses were conducted at Ottawa and Petawawa, as well as various trade courses.

In the fall of 1970, LCol A.H. Birks, DSO, ED, was appointed to a second term as Honorary LCol. BGen G.E. Beament, OBE, CD, is the unit Honorary Colonel.

On October 1, Capt J.K. Hilton was promoted to Major and appointed B.C. of the FMC battery. Capt D.H. Dobson was appointed B.K.

The 30th Field looks forward to a productive year of training in all phases of gunnery as well as its tasking as Canada's National Saluting Regiment.

COMMANDING OFFICERS RCA(M)

1st (Halifax-Dartmouth) Field Artillery Regiment
LCol J.W. Alward, CD

15th Field Artillery Regiment
LCol G.J. Bailey, CD

2nd Field Artillery Regiment
LCol J.R.G. Saint-Louis, CD

20th Field Artillery Regiment
LCol W.G. Ames, CD

3rd Field Artillery Regiment
(The Loyal Company)
LCol E.A. Bauer, CD

26th Field Artillery Regiment
LCol D.C. Brown, CD

6th Field Artillery Regiment
LCol G. Preaux, CD

30th Field Artillery Regiment
LCol G.E. Ward, CD

7th Toronto Regiment
LCol J.C. McKenna, CD

49th (Sault Ste Marie) Field Artillery Regiment
LCol E.H. Rowe

10th Field Artillery Regiment
LCol A.R. Strickland, CD

56th Field Artillery Regiment
(Dufferin and Haldimand Rifles)
LCol L.M. Salmon, CD

11th Field Artillery Regiment
LCol R.G. French, CD

62nd (Shawinigan) Field Artillery Regiment
LCol J.R. Boucher, CD

5th (British Columbia) Field Battery
Maj F.E. Richardson, CD

20th Independent Field Battery
Maj D.P. Graham

84th Independent Field Battery
Maj D.W. Burns

116th Field Battery, 40 Field Regiment
Maj C.L. Poirier, CD

OFFICERS' AND WARRANT OFFICERS' LOCATION LIST

BGen	GRA	Coffin, CD	COS Support Services, Air Transport Command HQ
BGen	JL	Drewry, DSO, CD	COS Adm-Tec, Training Command HQ
BGen	EMD	Leslie, DSO, CD	Chief of Staff, UNFICYP and Commander Canadian Contingent Cyprus
Col	LC	Baumgart, CD	Commander CFB Shilo
Col	JF	Beer, MBE, CD	Directing Staff, NATO Defence College
Col	RP	Bourne, CD	Seconded Solicitor General
Col	DW	Francis, CD	Director of Artillery, CFHQ
Col	DH	Gunter, CD	DCOS Training, Mobile Command HQ
Col	RG	Heitshu, CD	Deputy Commander, CFB Gagetown
Col	JOVF	Menard, CD	Commander CFB St Jean
Col	NW	Reilander, CD	DCOS Combat Arms Training, Training Command HQ
Col	WW	Turner, CD	Directing Staff, National Defence College
LCol	DR	Baker, CD	Combat Arms School, CFB Gagetown
LCol	CE	Beattie, CD	Directorate of Artillery, CFHQ
LCol	MD	Calnan, CD	SSO, 4 CMBG
LCol	JEJ	Caryi, CD	Atlantic Area, CFB Halifax

LCol	JA	Cotter, CD	Directorate of Land Operational Research, CFHQ
LCol	DB	Crowe, CD	Exchange Officer, Australian Staff College
LCol	JD	Crowe, MC, CD	Canadian Defence Liaison Staff (London)
LCol	Wk	Dawes, CD	CO, 2 RCHA
LCol	JJA	Doucet, CD	CC, 5e RALC
LCol	DC	Fitzgerald, CD	UNMOG (IP)
LCOL	JG	Henderson, CD	Canadian Defence Liaison Staff (Washington)
LCol	W	Johnston, CD	CTS Branch, CFHQ
LCol	MD	Kearney, CE	VCDS Branch, CFHQ
LCol	SV	Lloyd, CD	B Adm O, CFB Comox
LCol	AC	Moffat, CD	Canadian Defence Education Establishment
LCol	GBC	Parenteau, CD	CFB Valcartier
LCol	JF	Pendergast, CD	CC Branch, CFHQ
LCol	NA	Robertson, CD	Air Defence Command HQ
LCol	WE	Sills, CD	Directorate of Long Range Planning, CFHQ
LCol	CR	Simonds, CD	VCES Branch, CFHQ
LCol	A	Sosnkowski, CD	Seconded to Treasury Board, Ottawa
LCol	HJ	Stein, CD	CO, 1 RCHA
LCol	RAD	Stokes, CE	Mobile Command HQ
LCol	DG	Struthers, CE	SSO Civil Emergency Operations and Plans, ATC Det, CFB Toronto
LCol	JAR	Vandal, CD	Student, National Defence College
LCol	JO	Ward, CE	B Adm O, CFB Petawawa
LCol	WD	Wellsman, CE	CO, 3 RCHA
LCol	HR	Wheatley, CD	Directing Staff, CLFCSC
Maj	FC	Ayers, CD	UNTSO Palestine
Maj	JLHC	Archambault	HQ 5 Combat Group
Maj	NH	Barrett, CD	CO E Bty, 2 RCHA
Maj	AK	Beare, CD	3 Svc Bn, CFB Gagetown

Maj	RP	Beaudry, CD	5e RALC
Maj	JC	Berezowski, CD	Mobile Command HQ
Maj	EJ	Berris, CD	Maritime Command Pacific, CFB Esquimalt
Maj	RW	Boadway	Staff, Royal Military College
Maj	JP	Bouvette, CD	5e RALC
Maj	MC	Brown	Directorate of Land Operational Research, CFHQ
Maj	FA	Bussieres, CD	Mobile Command HQ
Maj	RV	Carriere, CD	Directorate of Intelligence Production, CFHQ
Maj	LL	Charest, CD	Directorate of Operations Readiness Land, CFHQ
Maj	WB	Cheadle, CD	RSS(Prairie), CFB Winnipeg
Maj	JP	Cheevers, CD	Student, CFSC
Maj	DH	Clark, CD	Canadian Defence Education Establishment
Maj	WS	Conrod, CD	Directorate General of Operations Land, CFHQ
Maj	AVA	Coroy, CD	Staff, Royal Roads Military College
Maj	WB	Creighton, CD	Central Area, CFB Toronto
Maj	JE	Crosman, CD	Combat Arms School, CFB Gagetown
Maj	FA	Davies, CD	2 RCHA
Maj	GA	Decker	3 RCHA
Maj	JK	Devlin, CD	Mobile Command HQ
Maj	JJ	Donahue, CD	Directorate of Operations Readiness Land, CFHQ
Maj	RR	Doyon, CD	CO, 1 Airborne Battery, CAR
Maj	WA	Emery	Provincial Warning Centre, Fredericton
Maj	FJR	Ervin, CD	RSS(Atlantic) Saint John
Maj	JC	Fleming	1 RCHA
Maj	RN	Gleason--Beard, CD	Mobile Command, HQ
Maj	THC	Goodfellow, CD	UNMOG(IP)
Maj	RE	Gorham, CD	Directorate of Intelligence Services, CFHQ
Maj	SD	Green	CO Air OP Flt, 408 Tac Hel Sqdn, CFB Shilo

Maj	OL	Greenizan	Maritime Command HQ
Maj	GM	Guy, CD	1 RCHA
Maj	GF	Hammond, CD	CFB Shilo
Maj	PF	Heenan, CD	Exchange Officer, US Army, The Pentagon
Maj	WB	Helman, CD	Directorate of Posting and Careers (Officers), CFHQ
Maj	DA	Henderson, CD	Directorate of Personnel Career Policy, CFHQ
Maj	GR	Hirter, CD	Mobile Command HQ
Maj	JE	Howes	CF Branch, CFHQ
Maj	RR	Howsam, CD	Directorate of Scientific and Technical Intelligence, CFHQ
Maj	NF	Hull	Staff CLFCSC
Maj	JMA	Hulsemann, CD	Training Command HQ
Maj	SP	Hunter, CD	Directorate of Policy Control and Coordination, CFHQ
Maj	RG	Hurley, CD	Combat Arms School, CFB Galetown
Maj	TT	Itani	Student, CLFCSC
Maj	RK	James	1 RCHA
Maj	WR	Johnston	VCES Branch, CFHQ
Maj	NW	Johnstone, CD	Mobile Command HQ
Maj	JC	Kennedy, CD	Mobile Command HQ
Maj	TJT	Kennedy, CD	UNTSO Palestine
Maj	HF	Leggett, CD	Mobile Command HQ
Maj	OJ	Lester, CD	Directorate General of Operations Land, CFHQ
Maj	G	Logan	CFB Europe
Maj	AGM	MacIsaac, CD	Canadian Defence Liaison Staff (Washington)
Maj	EB	MacLatchy, CD	UNFICYP
Maj	NM	MacLean, CD	Information Handling Agency, CFHQ
Maj	JL	Mantin, CD	Air Transport Command HQ
Maj	JAGP	Marceau	5e RALC
Maj	H	Marston, CD	Canadian Defence Liaison Staff (London)

Maj	FR	McCall, CD	Directorate of Equipment Requirements Land, CFHQ
Maj	JB	McCanse, CD	Mobile Command HQ
Maj	DB	McGibbon, CD	2 RCHA
Maj	HA	McLellan, CD	Personnel Management Information Agency, CFHQ
Maj	RL	McLellan, CD	UNMOG(IP)
Maj	GJ	Mialkowski	Directorate General of Operations Land, CFHQ
Maj	CA	Moogk	CLFCSC
Maj	CR	Mummery	CFLO, Fort Sill
Maj	CA	Namiesniowski, CD	CP Branch, CFHQ
Maj	GNR	Olson	CFE Europe
Maj	MN	Pettis, CD	Directorate of Operations Readiness Land, CFHQ
Maj	KS	Pickard, CD	Combat Arms School, CFB Gagetown
Maj	WJ	Ready, CD	CFLO, Ft Bliss
Maj	DJ	Redknap, CD	Directorate of Intelligence Production, CFHQ
Maj	ME	Rich, CD	3 RCHA
Maj	JK	Robertson, CD	Directorate of Armament Engineering, CFHQ
Maj	MJ	Sadler, CD	Exchange Officer DRA Woolwich
Maj	JK	Sangster, CD	CFB Edmonton
Maj	HD	Saxon, CD	Directorate of Equipment Requirements Land, CFHQ
Maj	EL	Schrader, CD	2 RCHA
Maj	WM	Scott, CD	3 RCHA
Maj	RD	Smyth, CD	Directorate of Armed Forces Programs, CFHQ
Maj	DD	Snow, CD	Directorate of Staff Duties, CFHQ
Maj	DE	Stothers, CD	VCDS Branch, CFHQ
Maj	RL	Strawbridge, CD	VCDS Branch, CFHQ
Maj	JE	Tattersall, CD	Combat Arms School, CFB Gagetown
Maj	HD	Thompson, CD	Mobile Command HQ
Maj	RV	Thompson, CD	1 RCHA
Maj	WJ	Tippett, CD	Seconded to Department of Defence Production, Ottawa

Maj	RK	Wallace, CD	Exchange Officer, Ministry of Transport, UK
Maj	DJ	Walters, CD	Student, CGSC Fort Leavenworth
Maj	CME	West, CD	UNTSO Palestine
Maj	LE	West, CD	Training Command HQ
Maj	GL	Wetherup, CD	CFB Calgary
Maj	T	Wheeler	Mobile Command HQ
Maj	PA	White, CD	VCDS Branch, CFHQ
Maj	WMJ	Wolfe, CD	Exchange Officer, Larkhill, UK
Capt	EJ	Adams	2 RCHA
Capt	RI	Adams, CD	Staff College, Camberley
Capt	LC	Adkins	Combat Arms School, CFB Gagetown
Capt	EH	Anderson, CD	CFB Petawawa
Capt	RB	Armstrong	2 RCHA
Capt	RL	Armstrong	RSS(Atlantic)
Capt	JJ	Baker, CD	Directorate of Armament Engineering, CFHQ
Capt	JA	Ball	E Bty, 2 RCHA
Capt	RJ	Beardmore	3 RCHA
Capt	DJ	Beatty	HQ 1 Combat Group
Capt	JW	Beese	5e RALC
Capt	EB	Beno	VCDS Branch, CFHQ
Capt	MV	Bezeau	Combat Arms School, CFB Gagetown
Capt	DB	Bianco	1 RCHA
Capt	JGR	Bigras	RSS (Pacific), Victoria
Capt	JN	Boudreau	HQ 5 Combat Group
Capt	SJ	Bowers, CD	Information Handling Agency, CFHQ
Capt	ABC	Bowles	1 RCHA
Capt	GWR	Bowman, CD	UNTSO Palestine
Capt	LA	Branum	Combat Arms School, CFB Gagetown

Capt	TE	Brewster	1 RCHA
Capt	JD	Briscoe	5e RALC
Capt	JEF	Bryce	Undergraduate studies, Queens University
Capt	JF	Bulgar, CD	CP Branch, CFHQ
Capt	AW	Carnell	Mobile Command HQ
Capt	AP	Carroll	Training Command HQ
Capt	RJ	Chamberlain	CFOCS, CFB Chillivack
Capt	CZJ	Chamberland	Combat Arms School, CFB Gagetown
Capt	FH	Champion--Demers, CD	Information Handling Agency, CFHQ
Capt	JP	Chartres	RSS (Prairie), Regina
Capt	RW	Chaulk	CFRS Cornwallis
Capt	MF	Clark, CD	Student, C.F.CSC
Capt	RC	Colemar	5e RALC
Capt	NH	Connolly	5e RALC
Capt	GR	Conway, CD	RSS(Central), North Bay
Capt	AK	Court	Mobile Command HQ
Capt	R	Dallaire	RSS (Eastern)
Capt	JA	Davidson	HQ 4 CMBG
Capt	JA	Dorman	ASTU, CFB Edmonton
Capt	HR	Eamor	2 RCHA
Capt	BG	Earl	Directorate General Operations Land, CFHQ
Capt	DA	Elrick	Combat Arms School, CFB Gagetown
Capt	RG	Elrick	1 RCHA
Capt	TA	Favier	Information Handling Agency, CFHQ
Capt	DR	Ferguson	3 RCHA
Capt	TAD	Fetterly, CD	Combat Arms School, CFB Gagetown
Capt	W	Filonik	RSS (Eastern)
Capt	H	Finestone	1 RCHA
Capt	PW	Forsberg	2 RCHA
Capt	FJ	Forsyth, CD	RSS Prairie Area, Winnipeg
Capt	JJ	Fraser	Undergraduate studies, Brandon University

Capt	FL	Furness, CD	Maritime Command HQ
Capt	AG	Gallant	5e RALC
Capt	GA	Gallop	2 RCHA
Capt	WF	Gee	RSS (Eastern)
Capt	IWC	Gibbons	1 RCHA
Capt	RG	Glover	Combat Arms School, CFB Gagetown
Capt	WE	Gordon	Student CLFCSC
Capt	WD	Gowanlock	HQ 1 Combat Group
Capt	BM	Grace	Directorate of Armament Engineering, CFHQ
Capt	PJ	Graves, CD	Training Command HQ
Capt	DA	Gronbeck-Jones	Combat Arms School, CFB Gagetown
Capt	WH	Groom, CD	CLFCSC
Capt	TJ	Guiler	Combat Arms School, CFB Gagetown
Capt	CO	Gustafson	3 RCHA
Capt	EC	Hague	5e RALC
Capt	FH	Hansford	3 RCHA
Capt	MJ	Harmston, CD	Directorate of Operations Land, CFFQ
Capt	AV	Harris	CFB Calgary
Capt	DB	Harrison	Mobile Command HQ
Capt	RN	Haslett	CFRS Vancouver
Capt	DW	Hawthorne	Directorate of Personnel Administration Ceremonial and Welfare, CFHQ
Capt	JE	Hawthorne	ETAC, CFB Bagotville
Capt	FC	Haynes, CD	Directorate of Manpower Distribution Control Centre, CFHQ
Capt	JD	Hetherington, CD	RSS (Pacific)
Capt	MW	Hewes	1 RCHA
Capt	RP	Hodgson	1 RCHA
Capt	JM	Hoffman	Training Command HQ
Capt	DR	Hopper	Provincial Warning Centre, Valcartier
Capt	R	Hoyland	Exchange Officer 3 RHA

Capt	RY	Hutton, CD	Combat Arms School, CFB Gagetown
Capt	DGH	Hyman	5e RALC
Capt	RM	Hyslop	E Bty, 2 RCHA
Capt	MK	Jeffrey	1 RCHA
Capt	GH	Jussup, CD	Directorate of Project Formulation, CFHQ
Capt	JM	Kavanagh	Mobile Command HQ
Capt	LC	Kempffer, CD	BSS (Prairie), Edmonton
Capt	GD	Kerr	Staff, Royal Military College
Capt	JB	Knapp	1 RCHA
Capt	DC	Knight	Directorate of Scientific and Technical Intelligence, CFHQ
Capt	JDL	Krauter	5e RALC
Capt	RG	Kyle	1 RCHA
Capt	DJ	Lacey	E Bty, 2 RCHA
Capt	FK	LaForge	CFB Petawawa
Capt	JB	LaPointe, CD	Combat Arms School, CFB Gagetown
Capt	PR	Learmonth	Combat Arms School, CFB Gagetown
Capt	BM	Lees	1 RCHA
Capt	SW	Lobban, CD	Directorate of Operations, CFHQ
Capt	DA	Lockridge	3 RCHA
Capt	RJ	Lucas	1 Airborne Battery, CAR
Capt	JM	MacInnes	Directorate of Personnel Requirements Control, CFHQ
Capt	JA	MacInnis	Staff, CLFCSC
Capt	AA	MacLeod, CD	BSS (Pacific)
Capt	WR	MacNeil	Student, CLFCSC
Capt	JOA	Maher	CFB Edmonton
Capt	MD	Maher	Combat Arms School, Gagetown
Capt	E	Malcolm, CD	3 RCHA
Capt	GR	Manson	3 RCHA
Capt	FB	May, CD	HQ 4 CMBG

Capt	RN	McAlpine	Undergraduate Studies, University of Manitoba
Capt	JP	McConville, CD	CFB Borden
Capt	TS	McCoy	HQ 2 Combat Group
Capt	BTN	McGrath	Combat Arms School, CFB Gagetown
Capt	JA	McKay	5e RALC
Capt	RW	McKinlay	CFB Gagetown
Capt	WL	McMullen	427 Tac Hel Sqn, CFB Petawawa
Capt	TW	Melnyk	Foreign Liaison Office, CFHQ
Capt	JE	Miller	1 RCHA
Capt	AG	Mills	1 Airborne Battery, CAR
Capt	LTB	Mintz	Combat Arms School, CFB Gagetown
Capt	SR	Moore, CD	Directorate of Postings and Careers Men, CFHQ
Capt	MB	Morrison	1 RCHA
Capt	JW	Mortlock	1 Airborne Battery, CAR
Capt	HF	Mundell	2 RCHA
Capt	JDE	Niles	RSS (Atlantic), Saint John
Capt	JW	Nixon	Canadian Forces Recruiting Centre, Halifax
Capt	RL	O'Banion	Combat Arms School, CFB Gagetown
Capt	GJ	Oehring	2 RCHA
Capt	JK	Orton	3 RCHA
Capt	AF	Ouelette, CD	CFS Whitehorse
Capt	AZ	Palmer	Combat Arms School, CFB Gagetown
Capt	JAR	Paquette	Chiccutimi
Capt	JA	Parnham, CD	ATC Regional Ops, CFB Toronto
Capt	WJ	Parton	Information Handling Agency, CFHQ
Capt	RE	Peterson, CD	Directorate of Cadets, CFHQ
Capt	JR	Pleasance	Combat Arms School, CFB Gagetown
Capt	JA	Poh, CD	5 CFSD, Moncton
Capt	TG	Power	RSS (Prairie), Brandon
Capt	GDL	Protz	CFB Summerside
Capt	EW	Rance, CD	Seconded to National Research Council, Ottawa

Capt	BA	Reid	VCDS Branch, CFHQ
Capt	CHG	Reid, CD	RSS (Central)
Capt	SJ	Reid	Combat Arms School, CFB Gagetown
Capt	JH	Rennie, CD	Student, CLFCSC
Capt	DM	Robb	Student, CLFCSC
Capt	TE	Roberts, CD	CFB Europe
Capt	LH	Robitaille, CD	Canadian Armament Design and Experimental Establishment, CFB Valcartier
Capt	TAW	Robson, CD	Information Handling Agency, CFHQ
Capt	RB	Rogers	HQ Combat Training Centre, CFB Gagetown
Capt	DJ	Rooke	CFTE – Flying Training
Capt	JA	Roszell	1 RCHA
Capt	JGVN	Rouleau	5e RALC
Capt	DE	Rousseau, CD	CFB Kingston
Capt	RDC	Rowdon	Directorate of Personnel Career Administration, CFHQ
Capt	JH	Ryan	Training Command HQ
Capt	RA	Salisbury, CD	RSS (Central), Hamilton
Capt	BS	Saunders	1 RCHA
Capt	GH	Sawatzki, CD	CFB Shilo
Capt	DG	Schott, CD	HQ 4 CMBC
Capt	GDC	Scott	CADEE, CFB Valcartier
Capt	RJM	Selman	E Bty, 2 RCHA
Capt	GM	Shellard, CD	CFB Chilliwack
Capt	WM	Shellnut	1 RCHA
Capt	P	Sherrick, CD	CFB Shilo
Capt	JFLP	Simard, CD	Montreal
Capt	HM	Simister	E Bty, 2 RCHA
Capt	JMA	Siple	Information Handling Agency, CFHQ
Capt	AHC	Smith, CD	HQ 2 Combat Group
Capt	GR	Smith	HQ Northern Region

Capt	TAH	Sparling	1 RCHA
Capt	JE	Stephens	RSS (Central), Hamilton
Capt	BE	Stephenson	1 RCHA
Capt	JC	Stewart	1 Airborne Battery, CAR
Capt	AG	Stoddard, CD	Directorate of Personnel Requirements Control, CFHQ
Capt	DB	Struthers	1 RCHA
Capt	SS	Takahashi	1 Airborne Battery, CAR
Capt	JJG	Tanguay, CD	RSS (Eastern)
Capt	RG	Thomason, CD	CFB Borden
Capt	GE	Trainor, CD	CFB Europe
Capt	JG	Trepasier	5e RALC
Capt	GWA	Trimble	Combat Arms School, CFB Gagetown
Capt	VA	Troop	Combat Arms School, CFB Gagetown
Capt	DG	Tudin	2 RCHA
Capt	RS	Usher, CD	Directorate of Land Operations Readiness, CFHQ
Capt	OE	Vanrooyen	1 RCHA
Capt	JM	Vanstone	RSS (Atlantic)
Capt	KD	Varey	HQ Combat Training Centre, CFB Gagetown
Capt	HA	Walinsky	Combat Arms School, CFB Gagetown
Capt	GM	Walker	Combat Arms School, CFB Gagetown
Capt	DB	Walton	1 Airborne Battery, CAR
Capt	RB	Wark	RSS (Atlantic), St Johns
Capt	WR	Watling	Mobile Command HQ
Capt	JAS	Watts	VCDS Branch, CFHQ
Capt	KWJ	Wenek	3 RCHA
Capt	DI	Whalen, CD	RSS (Central)
Capt	AJ	Wilson	Combat Arms School, CFB Gagetown
Capt	MR	Wilson	5e RALC
Capt	RS	Wilson	Combat Arms School, CFB Gagetown
Capt	MJ	Winter	1 RCHA

Capt	VW	Zaharychuk, CD	CADEE, CFB Valcartier
Capt	AM	Zamoyski, CD	RSS (Eastern)
Capt	WL	Zawyrucha, CD	Combat Arms School, CFB Gagetown
Lt	CB	Anderson	2 RCHA
Lt	JMN	Bernier	5e RALC
Lt	FB	Brake	1 RCHA
Lt	M	Burfitt	2 RCHA
Lt	RHM	Burnford	5e RALC
Lt	RE	Cockram	2 RCHA
Lt	AB	Cooney	2 RCHA
Lt	RN	Crooks	3 RCHA
Lt	JP	Culligan	3 RCHA
Lt	SA	Davis	Temporary Duty CLFCSC
Lt	JB	Dick	E Bty, 2 RCHA
Lt	WJ	Douglas	3 RCHA
Lt	JP	Garneau	Combat Arms School Det, CFB Valcartier
Lt	TD	Gerow	3 RCHA
Lt	JW	Gillenwater	5e RALC
Lt	MR	Grinius	5e RALC
Lt	BA	Hamilton	E Bty, 2 RCHA
Lt	RN	Hardman	E Bty, 2 RCHA
Lt	FG	Hickey	1 RCHA
Lt	AD	Hincks	5e RALC
Lt	DC	Holt	1 RCHA
Lt	WJ	Holtz	2 RCHA
Lt	JV	Howard	Information Handling Agency, CFHQ
Lt	DV	Iler	2 RCHA
Lt	FW	Kendall	5e RALC
Lt	ME	Kennedy	2 RCHA

Lt	RT	King	2 RCHA
Lt	JRA	Laberge	5e RALC
Lt	DJ	LeClair	2 RCHA
Lt	JMR	Lemieux	5e RALC
Lt	NB	Linton	2 RCHA
Lt	JE	McBride	E Bty, 2 RCHA
Lt	CQ	McCallister	5e RALC
Lt	GJ	McIlwain	3 RCHA
Lt	WD	McRobbie	E Bty, 2 RCHA
Lt	DC	Milne	E Bty, 2 RCHA
Lt	RB	Mitchell	3 RCHA
Lt	DS	Moreside	E Bty, 2 RCHA
Lt	BW	Olynick	3 RCHA
Lt	DE	Peterson	2 RCHA
Lt	DJ	Phillips	Combat Arms School, CFB Gagetown
Lt	TR	Pond	3 RCHA
Lt	GD	Resch, CD	CFB Esquimalt
Lt	HJ	Rice, CD	VCDS Branch, CFHQ
Lt	WW	Riedel	3 RCHA
Lt	AF	Roach	1 RCHA
Lt	TP	Ross	1 Airborne Battery, CAR
Lt	NK	Rutter	3 RCHA
Lt	PS	Sanderson	CFRC, Toronto
Lt	WJ	Soucie	1 Airborne Battery, CAR
Lt	KG	Spencer	5e RALC
Lt	TA	Stewart	2 RCHA
Lt	RC	Stowell	3 RCHA
Lt	SM	Tolson	2 RCHA
Lt	DR	Winters	DFIC, CFHQ

O/C	SH	Blades	Dalhousie University
O/C	JS	Bryce	Queens University
O/C	KC	Hague	Royal Military College
O/C	LE	Glover	Royal Military College
O/C	RF	Massden	Royal Military College
O/C	GR	Sackett	Royal Military College

Officers, formerly Artillery,
who maintained affiliation in 1971

Maj	FW	Bayne, CD	408 Tac Hel Sqn, CFB Edmonton
Maj	DR	Foster, CD	CO Air OP Flt, 427 Tac Hel Sqn, CFB Petawawa
Maj	DK	Lavender, CD	Directorate of Equipment Requirements Air, CFHQ
Maj	WDW	Lewis, CD	1 RCHA Air OP Troop
Maj	C	Panet, CD	430 ETAH, CFB Valcartier
Capt	P	Baldaro, CD	1 RCHA Air OP Troop
Capt	DH	Brown	CFB Esquimalt
Capt	RA	Diespecker, CD	Training Command HQ
Capt	MD	Elkins	Air OP Flt, 408 Tac Hel Sqn, Shilo Det
Capt	HC	Ellery	Air OP Flt, 408 Tac Hel Sqn, Shilo Det
Capt	GF	Ireland	430 ETAH, CFB Valcartier
Capt	DJ	Ker Hornel	Training Command HQ
Capt	RJ	Lovell	1 RCHA Air OP Tp
Capt	MJ	MacDonald	430 ETAH, CFB Valcartier
Capt	JM	MacFie, CD	427 Tac Hel Sqn, CFB Petawawa
Capt	DC	Miller	Air OP Flt, 408 Tac Hel Sqn, Shilo Det
Capt	AW	Nethercott, CD	Training Command HQ
Capt	WF	Pollock	450 Transport Squadron
Capt	ET	Whalen	Air OP Flt, 427 Tac Hel Sqn, CFB Petawawa

CWO	Barham	JW	9 RSS (Pacific) Vancouver
CWO	Campbell	TH	Combat Arms School Gagetown
CWO	Clarke	HA	CFB Shilo
CWO	Crawford	DJ	Canadian Armament Design Experimental Establishment Valcartier
CWO	Fraser	MJ	Directorate of Artillery/CFHQ
CWO	Holodiwsky	T	Canadian Armament Design Experimental Establishment Valcartier
CWO	Holtom	SR	5 RSS (Atlantic) Halifax
CWO	Jackson	B	Canadian Forces Warrant Officer School Esquimalt
CWO	Lunan	WM	Canadian Forces Warrant Officer School Esquimalt
CWO	MacDonald	MN	1 RCHA
CWO	Malcolm	GN	5e RALC
CWO	Richmond	JS	7 RSS (Central) Oakville
CWO	Sonnenberg	W	Combat Arms School Gagetown
CWO	Sutherland	RG	Directorate of Equipment Requirements/CFHQ
CWO	Syrette	R	Directorate of Armament Engineering/CFHQ
CWO	Thomas	DC	2 RCHA Petawawa
CWO	Vallee	LJ	Cdn AB Regt
CWO	Walker	LE	Directorate of Armament Engineering/CFHQ
CWO	Williams	DE	Canadian Armament Design Experimental Establishment Valcartier
CWO	Wilt	SG	3 RCHA
CWO	Winter	PA	Combat Arms School Gagetown
CWO	Witt	SG	8 RSS (Prairie) Winnipeg
CWO	Wood	FC	9 RSS (Pacific) Vancouver
MWO	Armstrong	GS	1 RCHA
MWO	Arnold	CH	Combat Arms School Gagetown
MWO	Begin	JP	5e RALC
MWO	Bittle	DD	Canadian Armament Design Experimental Establishment Valcartier
MWO	Blackwell	EJ	E Bty 2 RCHA Gagetown

MWO	Brown	AF	Combat Arms School Gagetown
MWO	Clarke	LH	Directorate of Postings and Careers Men/CFHQ
MWO	Clifton	HC	Combat Arms School Gagetown
MWO	Cloutier	PD	2 RCHA Petawawa
MWO	Conway	W	Directorate of Equipment Requirements Land/CFHQ
MWO	Cove	MJ	Combat Arms School Gagetown
MWO	Darling	WD	Assistant Director General Ordnance Systems/CFHQ
MWO	Fenske	RJ	Canadian Armament Design Experimental Establishment Valcartier
MWO	Fleet	WM	Administration Unit/CFHQ
MWO	Gardner	FJ	1 RCHA
MWO	Goodwin	RC	1 RCHA
MWO	Harrup	C	8 RSS (Prairie) Winnipeg
MWO	Hawkes	DW	1 RCHA
MWO	Heitshu	RA	5e RALC
MWO	Hibbett	RT	2 RCHA Petawawa
MWO	Larkin	TL	3 RCHA
MWO	MacDonald	DB	3 RCHA
MWO	MacDonald	FJ	1 RCHA
MWO	MacDonald	JA	E Bty 2 RCHA Gagetown
MWO	McBay	CB	Directorate of Land Operational Research/CFHQ
MWO	McTaggart	AE	CFB Winnipeg
MWO	Morris	EJ	1 RCHA
MWO	Moss	FE	Directorate of Postings and Careers Men/CFHQ
MWO	Mulherin	AJ	Air Transport Command HQ, Toronto
MWO	Niles	TW	8 RSS (Prairie) Winnipeg
MWO	Patrick	EE	2 RCHA Petawawa
MWO	Pyke	RG	CFB Shilo
MWO	Rhyno	RM	Directorate of Armament Engineering/CFHQ
MWO	Ryan	EP	Directorate of Land Operational Research/CFHQ
MWO	Sauve	MR	5e RALC

MWO	Sawatzky	B	1 AB Bty
MWO	Schoen	E	3 RCHA
MVO	Schofield	G ^W	1 AB Bty
MWO	Speare	RH	3 RCHA
MWO	Thomson	RL	3 RCHA
MWO	Tripp	WE	Assistant Director General Ordnance Systems CFHQ
MVO	Turner	J	3 RCHA
MVO	Walker	HS	1 RCHA
MWO	Wells	EE	CFB Suffield
MWO	Yavis	CC	Combat Arms School Gagetown
WO	Aucoin	JB	MARPAC HQ
WO	Baird	JB	Combat Arms School Gagetown
WO	Balma	RA	Combat Arms School Gagetown
WO	Barrett	EG	3 RCHA
WO	Boudreau	A	Combat Arms School Gagetown
WO	Buke	JA	HQ CENTAG
WO	Campbell	PJ	Combat Arms School Gagetown
WO	Carter	AG	1 AB Ety
WO	Clifton	JN	1 RCHA
WC	Clow	MD	2 RCHA Petawawa
WO	Currie	A	1 AB Bty
WO	Dent	WW	7 RSS (Central) Oakville
WO	Donnelly	BE	1 RCHA
WO	Douglas	RA	Combat Arms School Gagetown
WO	Fournier	PE	5e RALC
WO	Game	TK	Combat Arms School Gagetown
WC	Garron	AR	2 RCHA Petawawa
WO	Hatton	WD	1 RCHA
WO	Hebner	WE	3 RCHA
WO	Jarvie	JG	1 RCHA

WO	Jobe	DN	3 RCHA
WO	Kehler	A	1 RCHA
WO	LeBlanc	LP	5e RALC
WO	LeBreton	JH	5e RALC
WC	MacLean	AM	5e RALC
WO	MacLeod	RO	MARPAC HQ
VO	MacMillan	WA	Combat Arms School Gagetown
WO	McCormick	JE	Combat Arms School Gagetown
WO	McCulloch	DA	Combat Arms School Gagetown
WO	McGraw	JD	5e RALC
VO	McLean	JA	CAS Gagetown
WO	McPherson	AA	Y Bty 2 RCHA Gagetown
WO	Morley	JM	Combat Arms School Gagetown
VO	Mossey	JA	Combat Arms School Gagetown
WO	Oderkirk	CG	1 RCHA
WO	Parkinson	GL	1 AB Bty
WO	Parsons	IB	5 RSS (Atlantic) Halifax
WO	Perry	WK	Y Bty 2 RCHA Gagetown
WO	Pittman	WS	CFRS Cornwallis
VO	Power	PR	2 RCHA Petawawa
VO	Rochoh	PE	5e RALC
WO	Ross	J	3 RCHA
WO	Rossi	FH	Combat Arms School Gagetown
WC	Rowe	FT	2 RCHA Petawawa
WO	Sabean	MB	2 RCHA Petawawa
WO	Saulnier	HJ	5e RALC
WO	Shouldice	FJ	Y Bty 2 RCHA Gagetown
WO	Simmons	JM	Combat Arms School Gagetown
WO	Snell	D	1 RCHA
VO	Snyder	WE	Canadian Forces Recruiting Centre Winnipeg

VO	Surette	KJ	Combat Arms School Gagetown
WO	Thiverge	MD	Canadian Forces Recruit School Cornwallis
WO	Turk	LJ	430 Tac Hel Sqn Shilo
WO	Wagg	FG	3 RCHA
WO	Wall	DE	Combat Arms School Gagetown
WO	Willett	DJ	1 RCHA
WO	Wilson	GJ	1 RCHA
WO	Young	GB	1 RCHA

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The Wild GAK 1 is a lightweight gyro attachment (of the "Rellensmann System" type) which converts any normal theodolite into a North seeking instrument. The GAK 1 is merely set up on the special bridge, with forced-centering, which is mounted permanently on the theodolite's standards. True North is found with a standard deviation (m.s.e.) of $\pm 30''$ of arc, in 20 minutes of time, including the setting-up of the instrument. This is possible under almost all weather conditions and within a temperature range of -22°F to $+122^{\circ}\text{F}$ (-30°C to $+50^{\circ}\text{C}$).

The GAK 1 is ideally suited for the Wild T 16 and T 2 Theodolites.

Applications

Establishment and control of azimuth for surface and underground surveys; directional control for military units, especially artillery; orientation of navigational and telecommunication equipment; work in areas where compasses cannot be used or for magnetic declination determinations, elsewhere.

Further information is given in the pamphlet G1 1404 e, which may be obtained from


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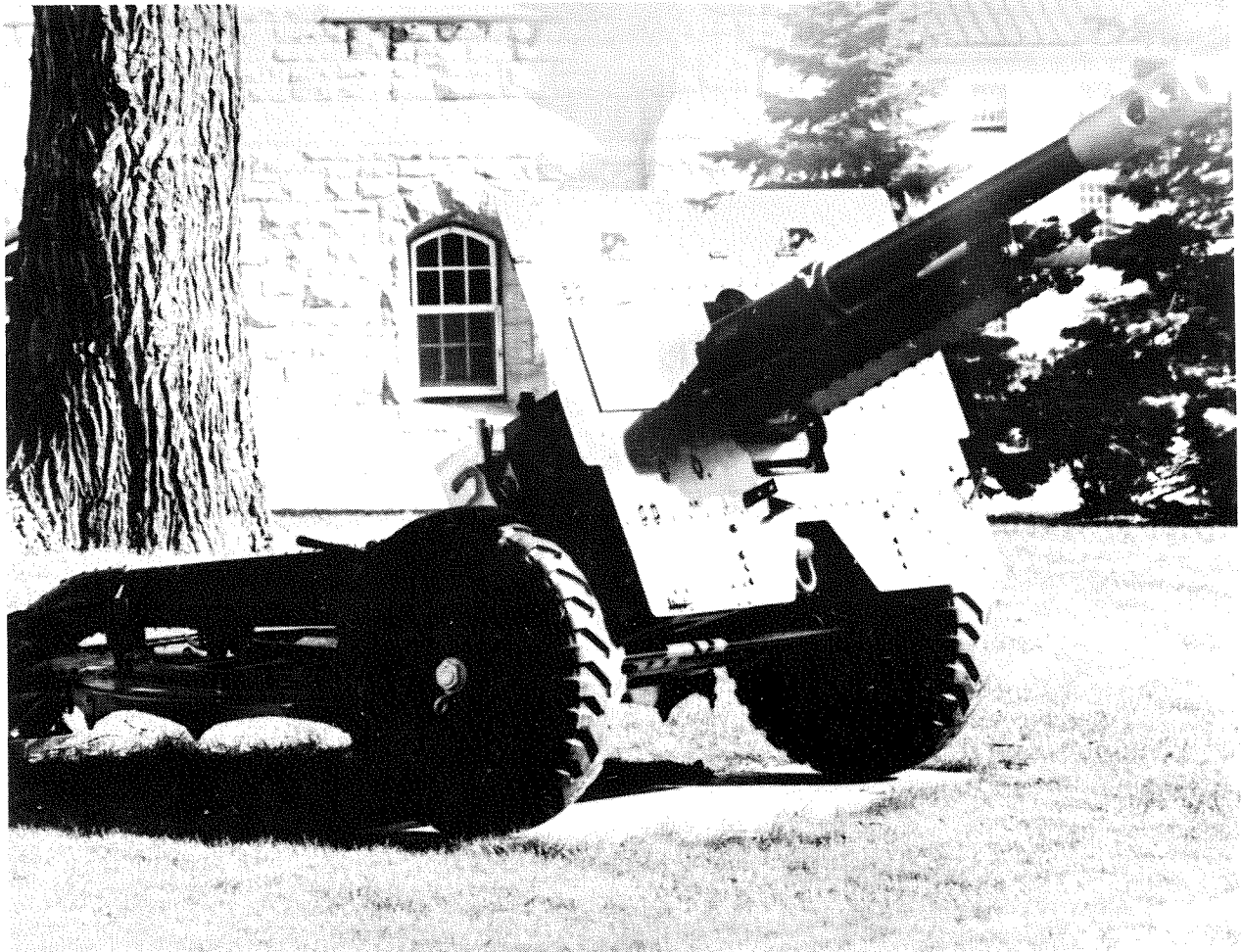
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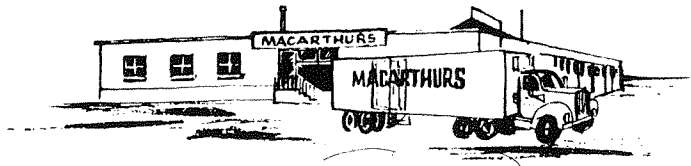
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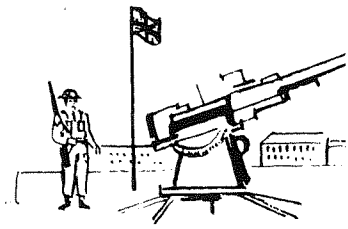
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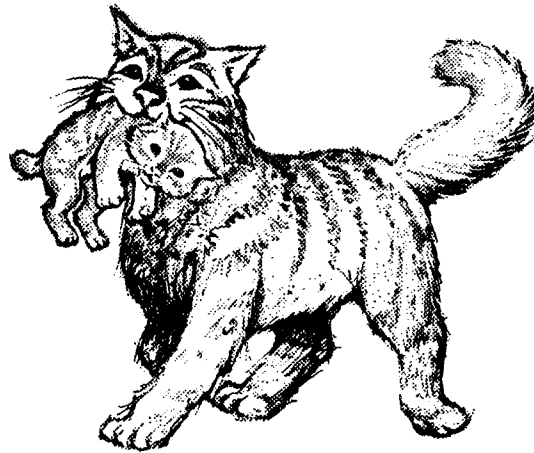
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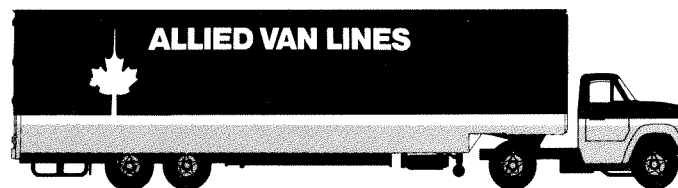


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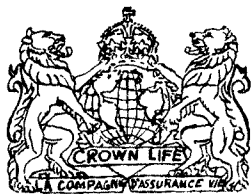
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