



THE CANADIAN GUNNER

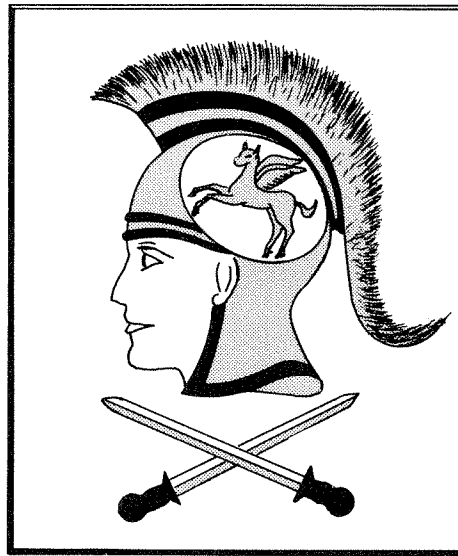
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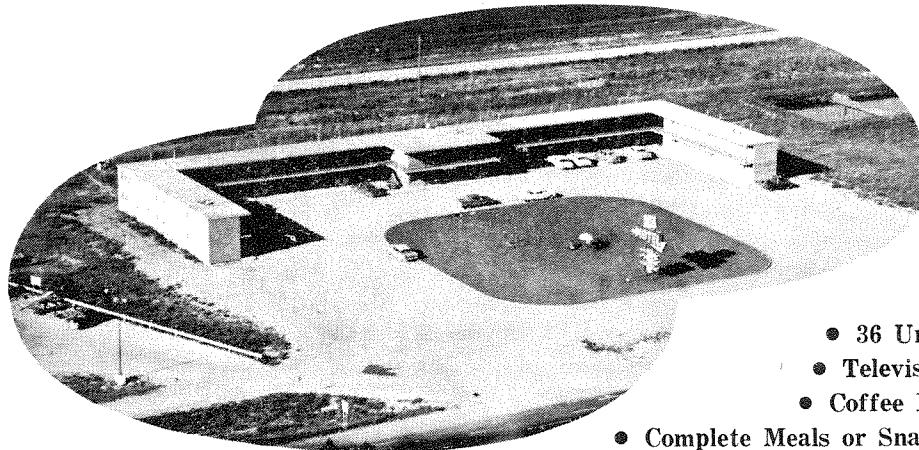
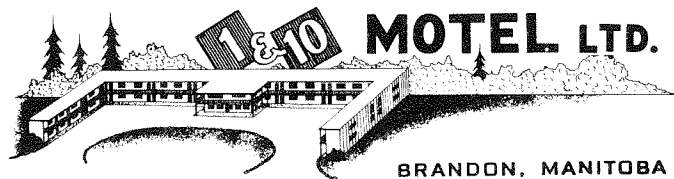
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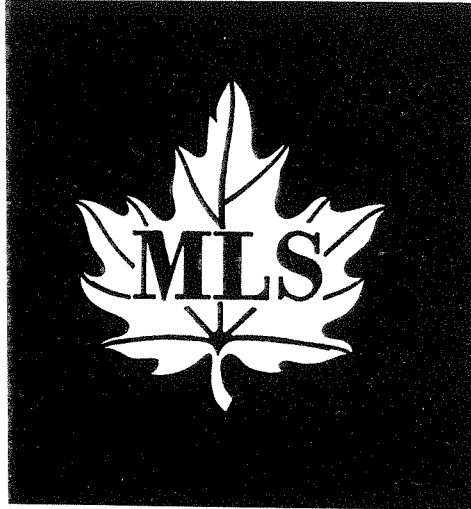


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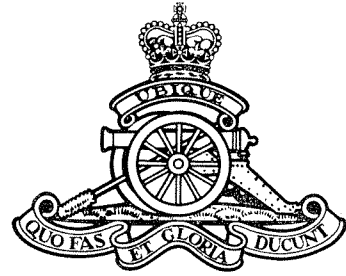
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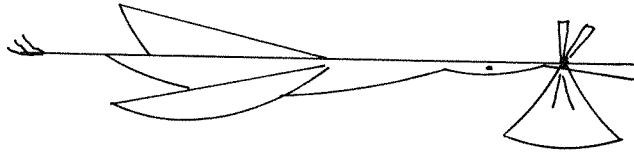
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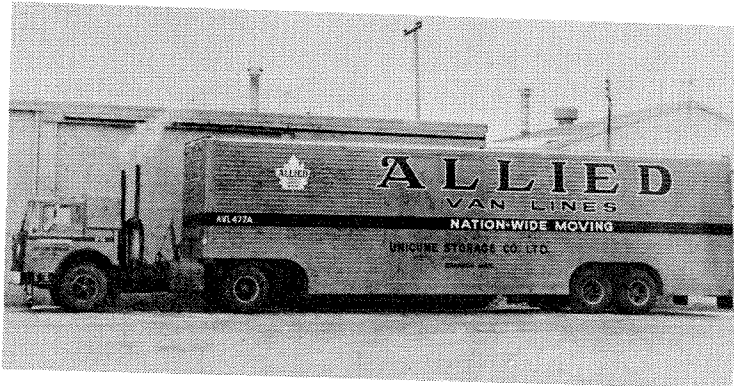
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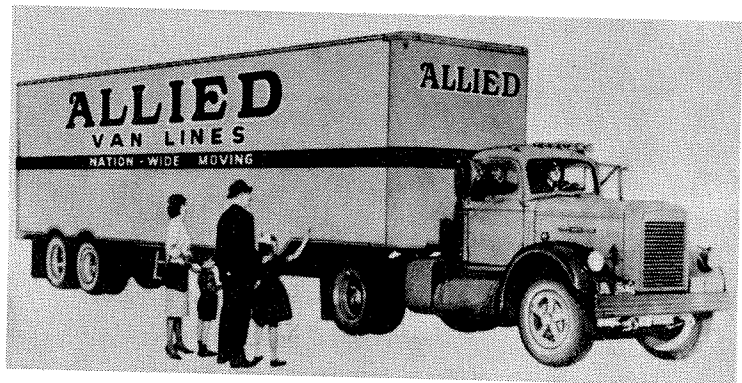
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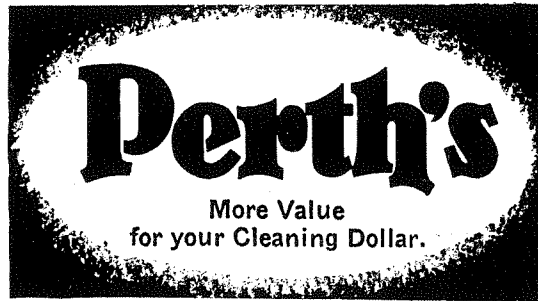
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THE CANADIAN GUNNER

Vol 1

December 1965

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

Colonel Commandant, Royal Regiment of Canadian Artillery
Major-General AB Matthews, CBE, DSO, ED, CD

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The Commandant, Royal Canadian School of Artillery,
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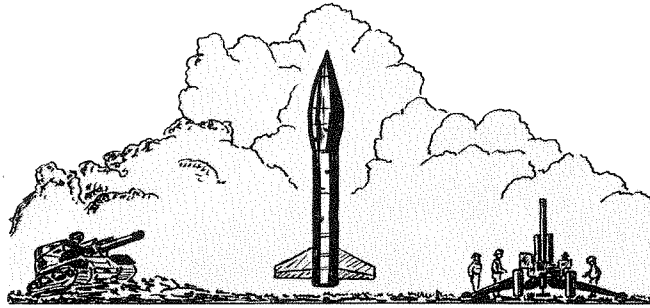
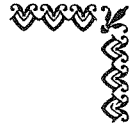
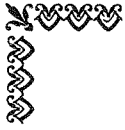
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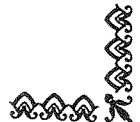
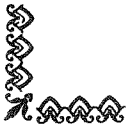
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Articles appearing on the pages which follow reflect the activities of a Regiment rich in history and young in outlook. Recognition is given to historical roots which run deep in the substance of Canada. Current activities of Canadian gunners are described so that we might keep abreast of the family gossip. Future developments, insofar as they are discernible, are indicated, if only sketchily by an uncertain hand. We make little claim to profundity and even less to prescience: our task is not envisaged as lying in that direction. The Canadian Gunner seeks to fill a requirement for a medium through which the Regiment can perhaps look at itself, as in a looking glass, and examine at leisure its idiosyncrasies, its foibles, its achievements, its deficiencies. The looking glass inevitably lacks depth; it is not an expensive glass. It is not, we hope, a distorting glass, and if beauty spots are revealed, or ugly blemishes, we can only presume that they must be real else they would not be reflected. If it is true that beauty is in the eye of the beholder, there will be as many different reflections as there are readers. We do hope that our readers will be legion, and that most of them will like what they see.



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The forerunners of this magazine present a somewhat chequered history. There was The Gunner published in Germany for six months in 1945 and 1946; the Canadian Gunner, formerly called the Shilo Observer, which appeared in the years between 1949 and 1962; and finally the semi-annual Gunner Bulletin, an admitted stopgap. The Canadian Gunner which was with us the longest, you will remember, staggered from crisis to crisis in the latter part of its life before finally succumbing to the indifference of its readers.

That late, and by many lamented, sheet died for two main reasons which were inextricably linked. First it became too much the parish magazine of Shilo and therefore was of little interest to those serving elsewhere, secondly because of the frequency of publication, to fill the paper, parochial news had to be used to make publication worthwhile. As outside interest declined, more and more local items appeared until inevitably the decision was made to cease publication.

Thus the background of this, the Canadian Gunner, an annual magazine, may not be the most promising. Future mistakes however can be avoided with the help of that useful aid, History.

We have of necessity allotted a fair proportion of the magazine to parochial matters. We are all interested in the doings of people and particularly of people whom we know. The important change, though, is that we are now large enough that the parish pump articles need not comprise too great a part. Further, by publishing annually, we hope that we can get more general articles during the course of the year, so that we can be selective.

Many of us now serve in interesting posts and in interesting places; many of us form opinions and reach conclusions about service life and the Regiment; many of us have the eye to see the funny and at times ridiculous side of our life; all these are of interest and this is your forum. The contentious, providing it is logical and is not just meretricious, will be welcomed by the editors.

The Canadian Gunner is very definitely, therefore, your magazine and you, as members of the Regiment, whether you are Regular or Militia, are those who can assure this publication success in the future. It will fail only through your indifference and this it must not do.

J. S. Orton Colonel

**GENERAL, THE HONOURABLE, HENRY DUNCAN GRAHAM CRERAR,
PC, CH, CB, DSO, CD, ADC, 1888/1965**

General Crerar died in Ottawa of a heart ailment on the 1st of April, 1965. One of Canada's most distinguished military leaders, his was a career which started on the guns and culminated in the highest echelons and with supreme honours. He was the first Canadian to be appointed to the rank of full General while on active service at the front. His Majesty King George VI enrolled him in the Order of the Companions of Honour, and the Canadian government appointed him to the Canadian Privy Council, membership in which entitled him to the prefix "Honourable" for life.

General Crerar was born in Hamilton, Ontario, on 28 April 1888. He attended schools in Hamilton, and graduated from Royal Military College, Kingston, in 1909. On the outbreak of World War I, he was employed with the Ontario Hydro-Electric Commission in Toronto and was a Lieutenant in the 4th Battery of the Non-Permanent Active Militia. He went overseas in February 1915 as a gunner officer in Canada's 1st Division and fought through the Battle of Ypres, which is especially remembered for the devastating gas attack which was launched against the Canadians. By 1917 he was the Brigade Major of the 5th Canadian Divisional Artillery. In November of that year he succeeded Sir Alan Brooke (later Field Marshal) as Artillery Staff Officer, Canadian Corps. Eleven months later he was promoted to the rank of Lieutenant-Colonel and appointed Corps Counter-Battery Officer.

After the war, Crerar reverted to the rank of Major, served on the General Staff in Ottawa, and in 1922 qualified for admission to the Army Staff College in England (only two officers of Canada's small post-war forces qualified that year, the other being a R 22er officer who was subsequently to become His Excellency Governor General Georges Vanier). Crerar and Vanier graduated from the Staff College in Camberley in 1925. Subsequent appointments included that of Battery Commander of B Battery, RCHA, from 12 April 1927 to 1 January 1928, student at the Imperial Defence College in 1934, general staff officer at National Defence Headquarters and Military Adviser to Canada's delegations at the Disarmament Conference in Geneva, 1932, and the Imperial Conference in London in 1937. In 1938 he was appointed Commandant of Royal Military College with the rank of Colonel.

Within a month after the declaration of war in 1939 he was promoted to the rank of Brigadier and sent overseas to prepare for the



arrival of the 1st Canadian Division, then being mobilized. He returned to Canada in July, 1940, to become Chief of the General Staff, and in 1941 was promoted to the rank of Lieutenant-General. On 22 December 1941, he returned to England as a Major-General, having reverted in rank in order to accept command of the 2nd Canadian Division. On his arrival, however, he became temporary Commander of 1st Canadian Corps, with rank of Lieutenant-General, relieving General McNaughton who returned to Canada on a liaison visit. When General McNaughton returned to set up the headquarters of the 1st Canadian Army in London in April of 1942, Crerar remained in command of the 1st Corps, the corps which he subsequently commanded for a brief period in operations in Italy.

As a Lieutenant-General, Crerar assumed command of the 1st Canadian Army on 20 March less than three months before the 3rd Canadian Division was sent onto the beaches of Normandy as part of the Allied invasion forces. Caen had fallen and the battle was moving on towards Falaise in the first week of August, when it was announced that General Crerar was in the field and in command of the Canadians. Under him were the Canadian 2nd, 3rd and 4th Divisions, the Polish 1st Armoured Division and the British 49 (West Riding) and 51 (Highland) Divisions which were to remain with him almost until the end of hostilities. During the campaign, the 1st Canadian Army at times had under command French, Czecho-Slovak, Belgian, American and Netherlands forces, but it was welded by Crerar and his staff into one of the finest fighting formations in northern Europe.

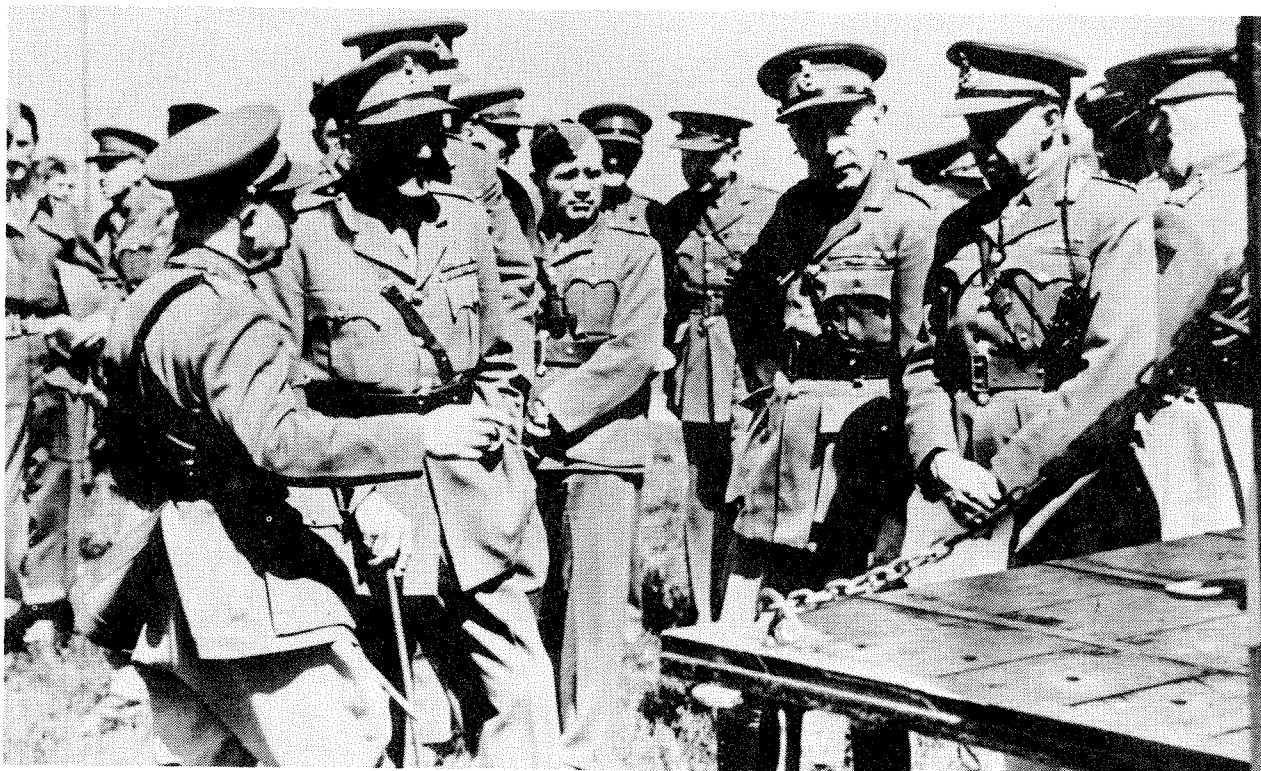
The Canadians broke the Caen hinge and General Crerar directed one of the great battles of the war when he threw his formations in to take Falaise and close the Trun gap, sealing the fate of the German 7th Army. There followed the great pursuit through France and Belgium with the General forced by circumstances to engage his army along one of the most extended fronts in military history, from Le Havre north along the *buzz-bomb* coast to the Scheldt estuary and the great port of Antwerp. He spent most of his waking hours in his plane, visiting the embattled 49th and 51st divisions hammering at Le Havre; the Canadian 3rd Division assaulting Boulogne and Calais; the 4th sweeping through Bruges and Ostende; the Poles at Terneuzen; the Americans near Turnhout; and the Canadian 2nd Division clearing Antwerp's northern suburbs and securing the port. It was one of the outstanding feats of generalship performed on the western front.

After the bloody battles of the Leopold Canal, the Breskens pocket and Walcheren Island, during part of which Crerar was on sick leave in England, he returned to lead his army into the Nijmegen salient in Holland and to prepare for the final assault across the Rhine and into Germany itself.

On 21 November 1944, Crerar was appointed to the rank of General. On 8 February 1945, he launched 1st Canadian Army against the northern flank of the Siegfried Line. He had several British formations under his command for the task, and with these and his own Canadian divisions, won the great battles of the Reichswald and Hochwald forests which set the stage for the subsequent British and American drive into the Ruhr and the plains of northern Germany.

With the 1st Canadian Corps joining him from Italy, Crerar had a truly Canadian Army in fact as well as in name, and the European war ended with the General directing his two Canadian Corps over an extensive front in western and northern Holland and in northwest Germany.

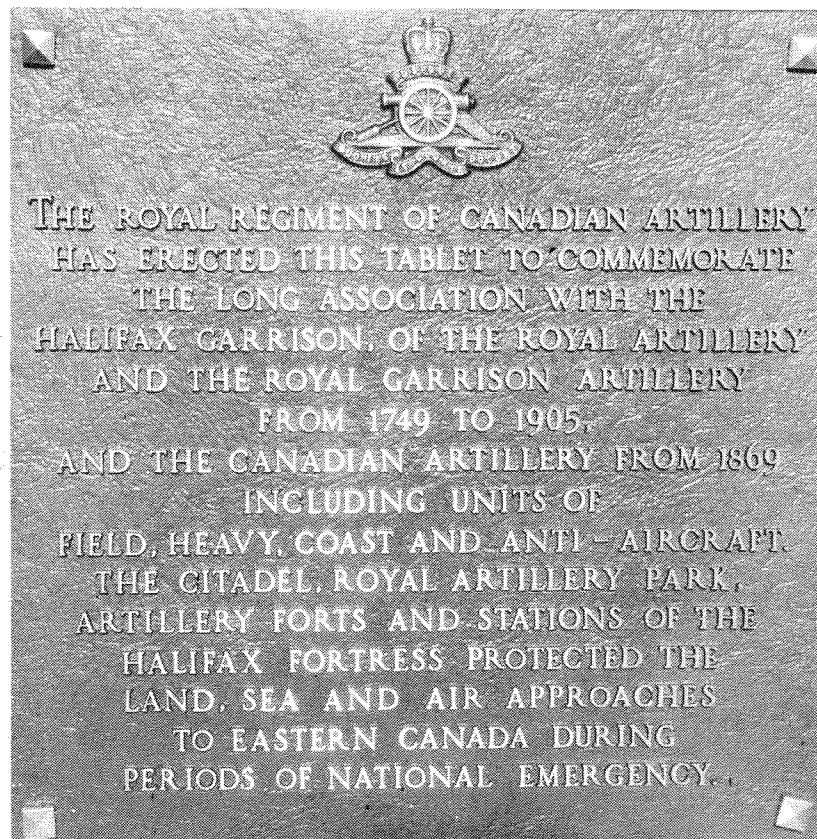
General Crerar left no memoirs. His story is written in the pages of Canadian military history. It is the story of a man who has been described as quiet, steady, remote, self-effacing, very human, very tough. It is a story which reached its conclusion in a majestic military funeral on the 3rd of April, 1965, at which the mourners were led by his old Staff College class-mate, Governor General Vanier. Harry Crerar would like to think of it as the story of a soldier who had never faltered from the path of duty.



Lt-Gen Crerar, GOC 1st Canadian Corps with Lt-Gen AGL McNaughtan and Gen Sir Alan Brooke, during an inspection tour – World War II



Colonel Commandant takes General Salute from 1 RCHA Guard of Honour before unveiling of Halifax Memorial. Left to Right – Capt DD Snow, Maj-Gen GA Turcot, Maj-Gen WAB Anderson



RCA MEMORIAL IN HALIFAX

On a wet, grey 25 October 1965, the Colonel Commandant unveiled a bronze plaque on a cairn, in the historic old fortress city of Halifax, NS. The cairn and plaque were placed at Royal Artillery Park, on Sackville Street, by the Regiment to commemorate an association of over 200 years between gunner units and the seaport which, in an earlier age, was once called *The Warden of the North*.

The first Royal Artillery units to be stationed in Halifax arrived in 1749, the year that the town was founded. British gunners served continuously in the station from that year until 1905, when the last units sailed for England and the new permanent force Canadian Artillery took over the Coast Defence duties. The unit which had the longest tour in Halifax was No 57 Company of the 2nd Battalion Royal Artillery, serving for 25 years from 1789 to 1814.

In 1905 the Canadian government formed No 1 and No 2 Companies of Royal Canadian Garrison Artillery, enrolling a good number of the British gunners who wished to take up permanent residence in Canada when their units returned to the British Isles.

Since 1905, many Canadian gunner units have been stationed in Halifax, including garrison, coast, anti-aircraft and field units. The last units of the now disbanded coast artillery were the 49th Harbour Defence Battery and the 6th and 36th Coast Batteries which defended the seaward approaches from 1939 to 1958. The skies over the old port and naval base have been defended by 1st Anti-Aircraft Battery, formed in 1925, the 7th, 14th and 4th Light Anti-Aircraft Batteries, and the 49th, 18th and 19th Heavy Anti-Aircraft Batteries.

The Militia Gunners have long been an active and important element of the Halifax garrison. The Halifax Brigade of Garrison Artillery was organized in 1869 and was redesignated 1st Halifax Regiment in 1900. In 1948 it was again redesignated and became the 1st (Halifax) Heavy Anti-Aircraft

Regiment, RCA. In 1960, it amalgamated with the 36th Medium Anti-Aircraft Regiment, and it is now perpetuated by the 1st (Halifax-Dartmouth) Field Regiment. Many other Militia units have been stationed in the Halifax area such as the 9th Heavy Battery 1907 - 1946, 10th Searchlight Battery 1939 - 1946, and the Halifax Coast Regiment which was organized in 1948 and later redesignated the East Coast Harbour Defence Battery.

Prior to the unveiling of the memorial, The Honourable HP MacKeen, Lieutenant Governor of the Province of Nova Scotia, a former gunner officer, inspected a 100 man guard of honour which was provided by 1 RCHA and commanded by Capt AHC Smith. During the inspection, a 15 gun salute, in honour of the Lieutenant Governor was fired on nearby Citadel Hill by 1st Field Regiment RCA(M), commanded by Lt Col AJW Dyer.

The memorial, presented by Major General AB Matthews, Colonel Commandant, on behalf of *the Regiment at large*, was accepted by the Lieutenant Governor on behalf of the people of Nova Scotia.

On the evening preceding the presentation of the memorial, a Guest Night was held in the historic Officers' Mess, Royal Artillery Park, during which a book was presented to the Mess, on behalf of the Regiment, containing the record of service of the units of the Royal Artillery and the Royal Canadian Artillery, which served in the Halifax Garrison from 1749 to 1965. Guests of Major General GA Turcot, GOC Eastern Command, and his officers, included the Lieutenant Governor, the Colonel Commandant, Major General WAB Anderson the Senior Regular Gunner, Major General EC Plow, Colonel SC Oland, Brigadier GB Robertson, Colonel JS Orton, Colonel A Perron, Lt Col LV Cushing, Lt Col DB Crowe and Lt Col JH Turnbull.

Music during the Guest Night and at the memorial ceremony was provided, very appropriately, by the RCA Band, CA(R), which is stationed in Halifax. Director of Music of this band is Lt JP Dowell, LRAM, ARCM.

LIFE GOES ON

The RCA Museum in Shilo holds the Incoming Letter Book of Clement Horton, Esq, Ordnance Storekeeper, Artillery Barracks, Halifax, for the period 14 Nov 1794 to 24 Nov 1800. The following extracts throw a few sidelights on garrison life which are often overlooked in versions of the past which dwell more on crinolines, sleigh drives and Military Balls.

CIRCULAR

OFFICE OF ORDNANCE
18 August 1796

Gentlemen

The Board having been pleased to annul their Order of the 3rd of July 1783 directing that no Demand made by Officers of the Royal Regiment of Artillery for postage of letters should be paid unless the original letters with the covers and contents as received by them were transmitted to serve as vouchers to the accounts.

I am commanded to acquaint you therewith and that the following mode is to be adopted in future for the payment of such expences instead of the regulations above mentioned Vis ..

The Commanding Officer of Artillery at each station shall produce every Quarter to the Storekeeper or other Officer belonging to the Ordnance entrusted by the Board with the payment of money, who may be at or in the neighborhood of such Station, an account certified by the Post Master of the place of all the letters which he as Commanding Officer of Artillery may have received in that period, which account shall be accompanied by his Certificate upon Honor that he had received all the letters specified in the Post Masters Account and they were all upon public business, and such account and certificate will be considered as a sufficient voucher to the Storekeeper or other Officer entrusted with the payment of public money for the discharge of such expences in future.

I am Gentlemen
Your most Obedient Servant
Sign'd/ R.H. Crew, Secty

Respective Officers at Halifax

OFFICE OF ORDNANCE
27th April 1797

Gentlemen

The Master General and Board having been pleased to direct, that from the 1st of July next, the allowance established by their Order of 23rd May 1788 to be given to Ordnance Surgeons for providing medicines for the use of the sick soldiers of the Royal Regiment of Artillery, and Corps of Royal Military Artificers and Labourers, should cease; and that in future the Surgeons should be supplied with such medicines as are necessary through the channel of the person appointed to perform the duty of apothecary to the Ordnance at Woolwich.

I am commanded to acquaint you therewith, and that from the 1st of July next the Storekeeper will discontinue to pay Mr. Wm Alman, the Ordnance Surgeon at Halifax, any allowance whatever on account of medicines.

It is not the intention of the Master General and Board to make any alteration in the manner of obtaining wine for the use of the sick of the Military and Civil Department, or in accounting for the expenditure of it, but the bark which is still to be allowed will be in future included by the Surgeon in his general demands for medicines.

I am further commanded to acquaint you that in order to lessen the charges for wine used in the Ordnance Hospitals, the Master General and Board have thought proper to direct that Porter, or good Beer should be substituted in cases that will admit of it, the expence of which is to be defrayed by the patients themselves, to whom it may be administered, unless the quantity necessary should exceed what they are able to afford, when upon a representation to, and order of the Commanding Officer of Artillery, the Commanding Royal Engineer, or the Respective Officers of the Ordnance, as the case may happen the Beer shall be purchased and the charge for it admitted in the Storekeepers account.

I am Gentlemen
Your most humble Servant
Sign'd/ R.H. Crew, Secty

Rec'd by the Jane Packet
6th August 1797

Respective Officers Halifax

HALIFAX, 12th May 1797

Sir

Lt General His Royal Highness Prince Edward is pleased to order that the doors for airing the Magazine on Citadel Hill should be opened every fine day and the Assistant Engineer on duty is directed to report when that service is neglected.

*I have the honor to be Sir
Your most obedt and most
Humble Servt
Sign'd/ I. Hale, M.S.*

C. Horton, Esqr

duty of Storekeeper at Barbadoes, to be immediately returned to that Island by some safe conveyance, addressed to Mr Baillic, the present storekeeper there.

*I am Sir
Your most humble servant
Sign'd/ R.H. Crew*

*Rec'd by the Queen
Charlotte Packet
11 Dec/99*

*Mr Horton,
Storekeeper Halifax*

*P.S. You will please to acknowledge
the receipt of this letter.*

HALIFAX, 5th July 1797

Sir

It has been reported that the person employed to air the Magazine of Citadel Hill, did not attend till half past nine this morning, instead of Six as ordered. Lieut General His Royal Highness Prince Edward desires to know the reason of this.

*I have the honor to be Sir
Your most Obedt and most
Humble Servant
Sign'd/ I. Hale, M.S.*

Clement Horton, Esqr

OFFICE OF ORDNANCE
HALIFAX, 1st June 1799

Sir

It appearing from the reports of the Commanding Officer of Artillery and Inspector of Ordnance Hospitals in the West Indies on their examination of the hospital expences at the several islands which took place in the last year, that their endeavours to fulfill their instructions as far as regard the Island of Barbadoes, were frustrated by your having on your being appointed storekeeper at Halifax, removed from Barbadoes, the vouchers of disbursements, Official Books of Entries, and other public documents between the 1st January and 30th September 1793, during the time you acted as Storekeeper at that Island. I am commanded to acquaint you that you have by this conduct, which has been productive of so much inconvenience and prejudice to His Majesty's Service, incurred the highest displeasure of the Lieutenant General and Board, and I am to desire you will without losing a moments time, cause such vouchers, books and other official documents as may be in your possession for any part of the time you performed the

HALIFAX
28th June 1799

Sir

Please to give directions for painting the gun carriages on Georges Island, and also to putty the cracks in them at the time they paint them, which they in general neglect to do.

Be pleased also to direct the inclosed Report of Deficiencies to be made good at Point Pleasant as soon as convenient.

*I have the honor to be Sir
Your most Obedient Humble Servant
Sign'd/ B. Wright Capt
Commanding the R.A.*

Clement Horton, Esqr

HALIFAX, 8th July 1799

Sir

When they have finished painting the guns etc at Fort George be so obliging as to give directions for painting all the guns, carriages and side arms at the following Batteries . . Viz . .

Ogilvies Battery, the three Batteries at Point Pleasant and the Tower there, the Eastern Battery, the Battery at Point Sandwich, and the Battery at Fort Massey.

Be so good as to tell them not to paint the Six Pounder Carriages in the Tower at Point Sandwich which are perfectly rotton, or the two carriages condemned at the Eastern Battery.

*I have the honor to be Sir
Your most Obedt Humble Servant
B. Wright, Capt
Comm'g R.A.*

Clement Horton, Esqr
Ordnance Storekeeper

AUTOMATIC DATA PROCESSING SYSTEMS FOR GUNNERS

Major T Boldt, CD

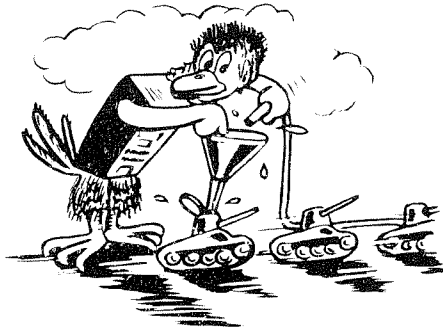
GENERAL

Automatic data processing (ADP) can be defined as the recording, filing, computing and production of data by electronic circuitry. It is basically the application of electronic digital computers and associated devices to information handling and decision processes. The two general categories of ADP are technical computing and the recording, filing, sorting, compiling and transmission of data.

An automatic data processing system (ADPS) is the key to the successful application of ADP in the field army. The heart of an ADPS is the digital computer. However, only when a series of computers, and associated equipment, are connected by a data transmission system can their full value be realized in tactical operations.

Artillery weapon systems are becoming increasingly capable of highly accurate and rapid fire. Better weapons and ammunition, modern communication systems and improved battlefield mobility have increased the tempo of war so that the time required for staff reaction and command decision must be constantly reduced. There will be an increasing requirement to collect and process data; to disseminate data to battlefield units; to hit targets quickly and accurately; and to provide reports on which command action can be taken.

The more important areas in which ADPS can perform gunner tasks are in fire control, survey, meteorology, target acquisition and intelligence and fire planning.



FIRE CONTROL

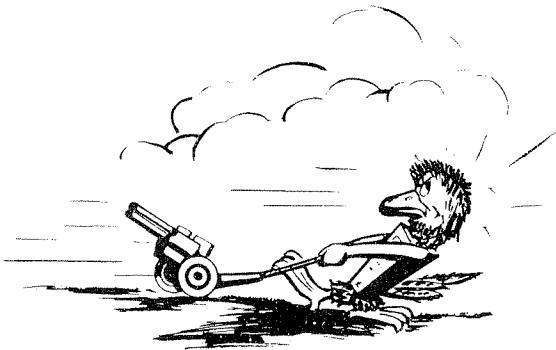
Present manual methods of technical fire control, dependent on graphical plotters, firing tables and computation, are not wrong but at best they provide only approximate solutions of an immensely complex problem. Graphical plotting devices such as the artillery board or the fire control plotter, have physical limitations due to size, scale and operator capability. Firing tables are an abbreviated statement describing a complicated ballistic trajectory under an arbitrary set of "standard conditions". They also include tables which permit the application of corrections to compensate for the effects of variations from these standard conditions. Space, however, only permits the listing of unit corrections. For example, the firing table "unit" correction for a headwind is really one-fiftieth of the total correction for a 50 knot headwind blowing in an atmosphere of "standard" density and temperature, for a "standard" projectile and "standard" muzzle velocity. Such conditions rarely exist. Similarly, a firing table solution cannot correct for second order effects eg: the effect of a variation from "standard" in density on the effect of a variation from "standard" in the wind. Other manual operations are similarly circumscribed. In computing corrections, using a meteorological message, a single line is used which corresponds to the anticipated vertex height of the trajectory. The value of each of the variables presented in this single line is not the true value of the variable at any point in the atmosphere. The values given are average values computed from consideration of the time the projectile spends in each layer of the atmosphere.

Another important aspect of fire control is the processing and handling of data. For example, the plotting and maintenance of up-to-date firing data for long lists of targets, either registered or received from other sources (including target acquisition devices), is severely limited with present day manual methods. This limitation is particularly critical when the data is required for a main firing position and also for alternative positions.

Manual methods of fire control do not permit full use of the capabilities of existing artillery weapon systems in speed, accuracy and the ability to process large masses of data. Present and future weapon systems, such as the 155mm How M109 (SP), demand improved methods of fire control to exploit the full capabilities of the system in terms of optimum effectiveness. Analysis of manual methods

of fire control indicates that in the trade-off between the maximum physical capabilities of manual instruments and techniques and the requirements of speed, accuracy and simplicity that further significant improvement is unlikely. Studies of fire support in World War II indicate that the use of accurate fire control digital computers, alone, could have resulted in a saving of at least one-sixth of the total ammunition fired with an increase of about 30 percent in overall effectiveness.

The technological advances in ADP, particularly in the last ten years, have now made ADP a practical military reality. A digital computer, when properly programmed, can solve the complete complex ballistic trajectory problem mathematically in a matter of seconds. To produce an accurate solution an operator need only enter the known input data, such as gun locations, unweighted atmospheric data, etc, and the commander's decisions, such as target location, projectile/fuze combination and method of fire. Similarly data processing is fast and simple. Targets can be stored for instant recall when desired and firing data is automatically brought up-to-date for current atmospheric conditions, gun position, desired projectile/fuze combination, etc. The number of targets that can be stored is only limited by the storage capability of the computer memory unit. In terms of tactical and logistical criteria (ammunition requirements) the conversion of fire control from manual methods to an ADPS is essential to realize the optimum value of cost-effectiveness from existing and future improvements in weapon systems, communications and battlefield mobility.



SURVEY

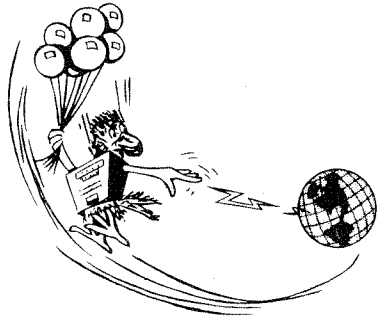
Weapon systems and target acquisition devices require rapid and accurate survey. Increased mobility, not only of weapon systems, but also of target acquisition sources, such as ground OPs,

APC mounted radars, radio-linked (ADPS controlled) sound ranging systems and drone systems, has greatly increased the volume of survey required within a formation. Full integration and optimum effectiveness of all these systems and devices demands the establishment and continuous flow of accurate survey data on a common control.

Improvements to meet the increased survey requirements lie in three main areas; field measurements, communications and data processing. The advent of tellurometers has greatly increased the speed and accuracy of distance measurements. Gyro orienters are now under rapid development to increase the speed and accuracy of bearing measurement. Future systems, such as the Visual Airborne Target Locator System (VATLS), can be expected to increase the overall survey capability. To provide speed, it is essential that critical field measurements be passed quickly to a computing centre where the field data is processed into the form required by the user. It is in this area where maximum benefit could be derived from an ADPS.

METEOROLOGY

The present methods used by electronic meteorological sections are limited by the time required for the balloon ascent, recording and computation of results, preparation and final delivery of the section will be increased with adoption of the AN/GMD-2 Rawin Set with its associated Recorder. However, the speed of the atmosphere sounding is still limited to the ascent time of the balloon and associated Radiosonde transmitter (about 25 minutes for a line 10 message). Both speed and accuracy are also limited by the manual computations required to convert recorded sounding data to a meteorological message (about 35 to 40 minutes for a line 10 message). The net result is that the message is not received by the user until at least one and a half hours after the initial release of the balloon. The time degradation of the message, not to mention space degradation, between the time of sounding and its application to the weapon or target acquisition system may well introduce unacceptable errors. Study is being carried out on faster rising balloons and sounding time. Introduction of a computer could reduce computing time and increase the computational accuracy in the order of about ten to one. When coupled with an automatic or semi-automatic communication system it would be possible to provide a constant flow of up-to-date meteorological data to the user. In a fully integrated ADPS this data would be automatically fed into the weapon or target acquisition system computer.



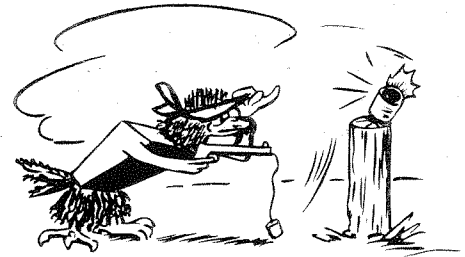
TARGET ACQUISITION AND ARTILLERY INTELLIGENCE

All target acquisition devices depend on detecting some portion or a direct product of the target to determine its location. With the exception of aerial photography, the target is located in relation to the target acquisition device. In the case of ground-based devices, targets can be located on a common grid by providing accurate survey for the devices. In the case of aerial sensor systems the location of the sensor platform must also be known at the time target sensings are obtained.

Ground radars produce weapon locations by sampling a portion of a particular trajectory and extrapolating this sample to the weapon location. The problem, therefore, is two-fold. Firstly, the detection of the weapon trajectory and secondly, the computation of the weapon location from the electrical sensings. A precision solution requires a complex method of extrapolation, including corrections to allow for the atmospheric refractivity profile. For high trajectory weapons these computations can be performed by a special purpose computer. However computations for low trajectory weapons demand a digital computer to solve the problem with speed and accuracy.

Sound ranging depends on accurate measurement of the time of arrival of the sound of a hostile weapon, at a series of microphones spaced along an accurately surveyed base. To obtain target locations, signals from the microphones must be transmitted to a recorder for analysis and measurement. The measured time intervals must be corrected for atmospheric effects and related to the surveyed positions of the microphones to obtain the final target location. The necessary speed and accuracy can probably only be achieved by an ADPS.

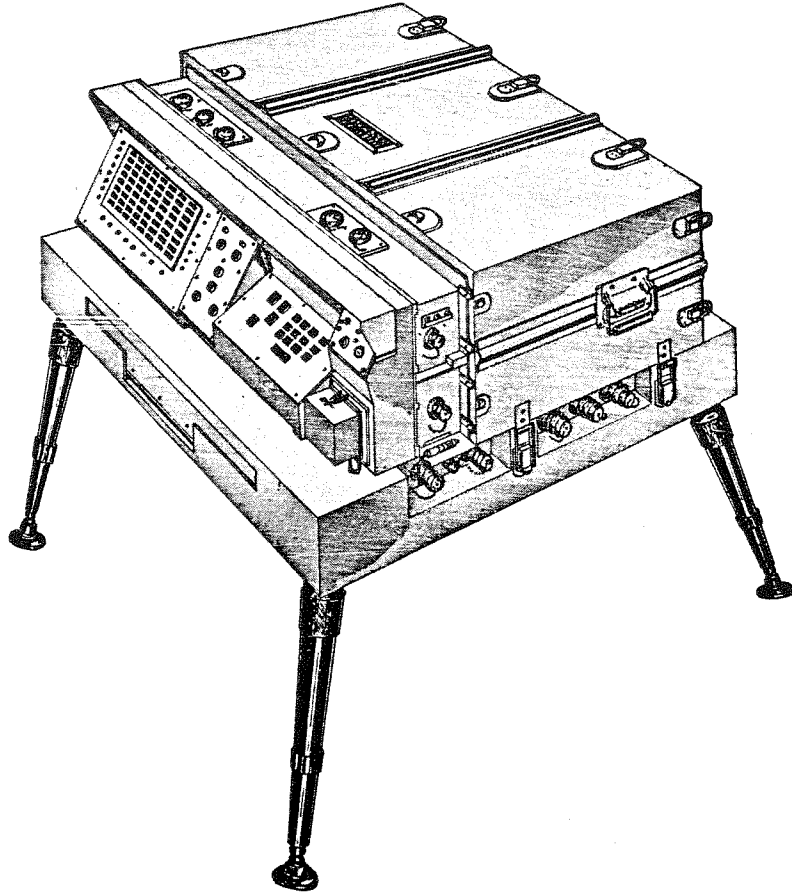
An even more interesting aspect in this field is artillery target intelligence, particularly in relation to counter-bombardment (CB) staff duties. There are two main interrelated areas of application. First is the analysis of fragmentary information obtained from all target acquisition sources (including devices) and the compilation of initial target lists. Second is the acquisition reliability of all sources, human or inanimate, to permit proper correlation of the multitude of fragmentary reports which will be received on the modern battlefield. Reliability, in this sense, refers to both location and target identification. Speed, accuracy and reliability in the gathering, analysis, compilation and distribution of target intelligence is essential to obtain the maximum benefits accruing from better weapon systems and increased battlefield mobility. The solution of the problem can be approached manually but requires large staffs, to wit the large CB staff organizations that grew during World War II. An integrated system, wherein the full capabilities of all resources can be realized within the bounds of economic staffing, might well be one of the most important applications of an ADPS.



FIRE PLANNING

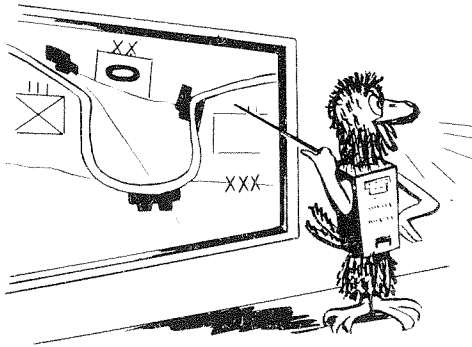
The greatest challenge in the application of ADP is in fire planning. Currently, the procedures and techniques involved in this function demand human thought and judgment at almost every step. There is, consequently, an understandable tendency to question the idea of a machine making decisions which can have a definite and direct impact on fire support.

The solution lies in establishing the appropriate man-machine relationship, that is, requiring the machine to perform the functions it can best do while human guidance is applied where it becomes a ruling factor. The basic problems in



*Computer Gun Direction M18
(FADAC System)*

fire planning are the compilation of detailed target lists with the weight and type of fire required on each target integrated with the available fire units, available ammunition, timings, etc. Most of the detail of these functions can be performed more accurately and efficiently by machine, provided it is programmed with the necessary technical data and is able to accept and apply the commander's decisions, guidance and criteria. Human staffs can maintain control throughout, overriding machine decisions when necessary and guiding the analysis at appropriate points.



There are three main advantages in automating fire planning. First, a significant saving in time. Fire plans, particularly at higher echelons, can be produced in minutes — once the process is started — rather than the hours, or days, which are needed with normal means. Second, human error in the mechanical manipulations currently required for analyzing and scheduling fire on targets will be eliminated. Third, a decrease in the necessary staffs and an increase in staff efficiency and effective output.



FIELD ARTILLERY DIGITAL AUTOMATIC COMPUTER SYSTEM (FADAC SYSTEM)

The FADAC system was developed as a result of general study in the applications of ADPS and technological progress in digital computers. It was designed to be compatible with, and a part of, a larger fire support ADPS. The development of the FADAC system was closely monitored by Canada and led to the standardization loan of one system to the Royal Canadian School of Artillery (RCSA) in 1964 and the purchase of three systems for eventual issue to 1 SSM Bty (Europe) and 2 SSM Bty (Shilo). The standardization loan system is undergoing tests and evaluations to determine relative field reliability, accuracy, capabilities, and the probable effect of the introduction of ADP into artillery. The purchased systems are undergoing reliability check-outs and mating of peripheral items prior to issue to units.

The FADAC system consists essentially of four main components and one peripheral item with associated cables and adaptors.

The main component is the Gun Direction Computer. This is a small-scale, medium speed, general-purpose, solid-state, automatic digital computer. The only moving parts in the computer are the magnetic disc memory unit and air blowers required to permit operation under extremes of temperature. It is relatively light-weight (232 lbs), compact, rugged and easily transportable. It can be operated on the move mounted in a vehicle or dismounted for operation on an associated field table. As previously stated it is a general purpose computer and must be programmed with the appropriate machine programme. Once programmed it becomes a special-purpose computer and can only be used to solve problems related to the loaded machine programme. Fortunately, machine programmes can be changed in a matter of minutes.

The power component of the system is a lightweight, transportable, gasoline generator which provides the necessary 120/208 volt, three phase, 400 cycle, 3 kilowatt power requirement.

The third component is the Signal Data Reproducer (SDR). This unit can service several computers and is used to load the appropriate machine programme into the computer. Its secondary use is as an input device for testing purposes when carrying out fault finding procedures. The SDR would not normally be located with a particular computer but would be carried in one of the unit maintenance vehicles to be brought forward as required.

The last major component is the Computer Automatic Logic Test Unit (FALT). This unit is only required for testing and fault-finding and can

also service several computers. The FALT, using the SDR as an input source, provides the circuits to check-out all the computer logic elements. Testing is carried out automatically. When a fault is discovered the FALT stops and displays the coded location of the computer fault. Normal repair consists essentially of removal and replacement of component circuit boards.

The additional peripheral component, which is only required with certain programmes, is a miniaturized electronic teletypewriter (MITE). This unit is only used when the computer output is required in printed form rather than visual display, eg: with the Honest John programme, survey programme, survey programme, etc. When the MITE is required it is connected to the computer by line. Computer output signals are fed directly to the MITE and automatically printed in the desired format.

The conventional gunnery machine programme for 105mm how/155mm how has been extensively tested at RCSA. The programme provides an accurate solution of the ballistic problem for these two weapons. Tests have shown conclusively that first round hits can be obtained provided the input data is correct.

The computer, when loaded with the conventional gunnery programme, has the following capabilities:

- a. Automatically compute gun data for five different fire units, either 105mm how, 155mm how, or any combination thereof, nearly simultaneously. RCSA tests have shown, however, that three fire units represent a practical maximum. The two remaining fire unit capabilities are not wasted and can be used for other tasks such as multiple engagements with a single fire unit, etc.
- b. Store up to nine OP locations, any one of which may be instantly recalled by entering the desired OP number.
- c. Store up to 88 targets, any one of which may be instantly recalled by entering the desired target number.
- d. Temporarily store data for one target when its engagement is temporarily suspended to engage a higher priority task.
- e. Automatically compute predicted gun data for any desired and allowable projectile/ fuze combination and for any existing or anticipated method of engagement.
- f. Automatically compute basic survey problems such as complete traverses, look-in bearings for cross-observation, intersections and various combinations thereof.
- g. Accept target indications in any presently known form.
- h. Indirectly, but automatically, compute any necessary crest clearance problems and data required for dead ground traces.
- j. Incorporates self-test routines to provide a continuous check on correct operation.

Input data, such as gun locations, target locations, etc, are entered manually through a keyboard. Meteorological data can also be entered through the keyboard (about two minutes) or through a mechanical tape reader (about 20 seconds).

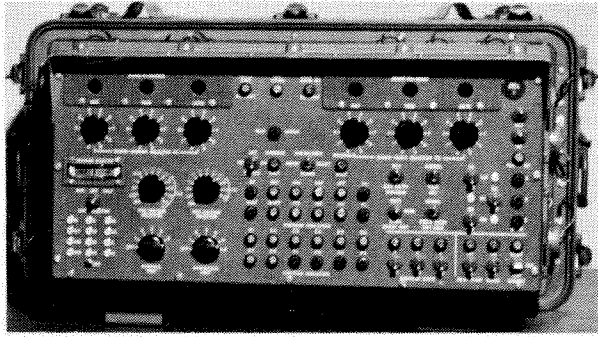
Ballistic computation time is about two thirds of the time of flight (about 20 seconds at mean fighting ranges). Target grid corrections, survey computations, reduction of gun data to map data, recall of stored targets, etc, are computed almost instantaneously. In general, the main speed limitation is the time required for the operator to enter the necessary data or to give the computer the appropriate instructions.

The main advantages of the FADAC system in the conventional gunnery application are accuracy - first round hits are possible - increased speed and the increased capability of handling and up-dating data such as target lists. The data processing capability can also significantly decrease the time required in the preparation of gun data for a deliberate and involved fire plan. In fact, the computer is fully capable of computing accurate gun data so quickly that the only preparation required is the entry of an up-to-date meteorological message, preparation of ammunition and the study of target lists and other fire plan instructions.

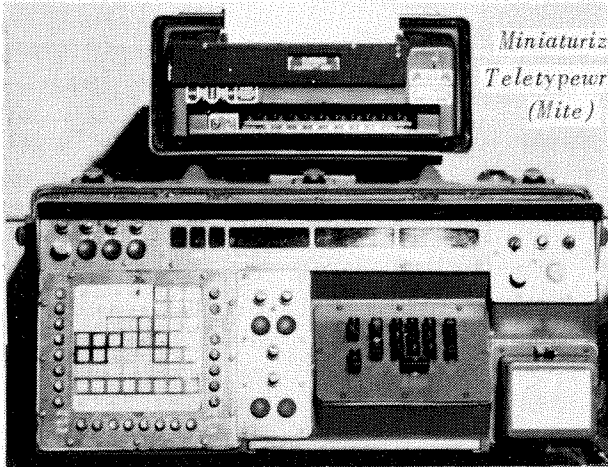
As a point of interest it should be noted that the cost of the FADAC system computer and its associated generator is less than one percent of the cost of a battery of 155mm how M109 (SP) guns and its first line ammunition.

RCSA has not yet received the machine programme for use in the surface-to-surface rocket application (Honest John). However, study of available data on this programme indicates that in addition to the anticipated increase in accuracy, the ballistic computation capability will be increased at least six fold (computation time is of the order of two to four minutes) and the overall capability will be increased at least ten fold. The difficult problems associated with crest clearance, multiple targets, multiple launcher positions, multiple warheads, etc, will be handled quickly and automatically. The programme also includes the capability of computing traverse and intersection survey problems.

US Agencies are intensively studying other

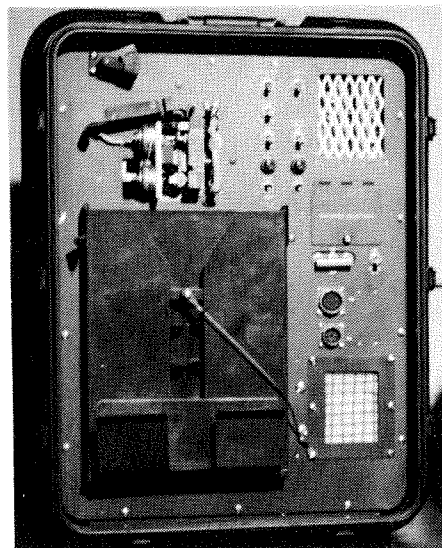


Computer Automatic Logic Test Unit



*Miniaturized
Teletypewriter
(Mite)*

Computer Gun Direction M18



Signal Data Reproducer

possible machine programmes for the FADAC system. It is anticipated that the survey programme will be completed in the near future. Programmes for meteorology and other artillery applications can be expected to be forthcoming.

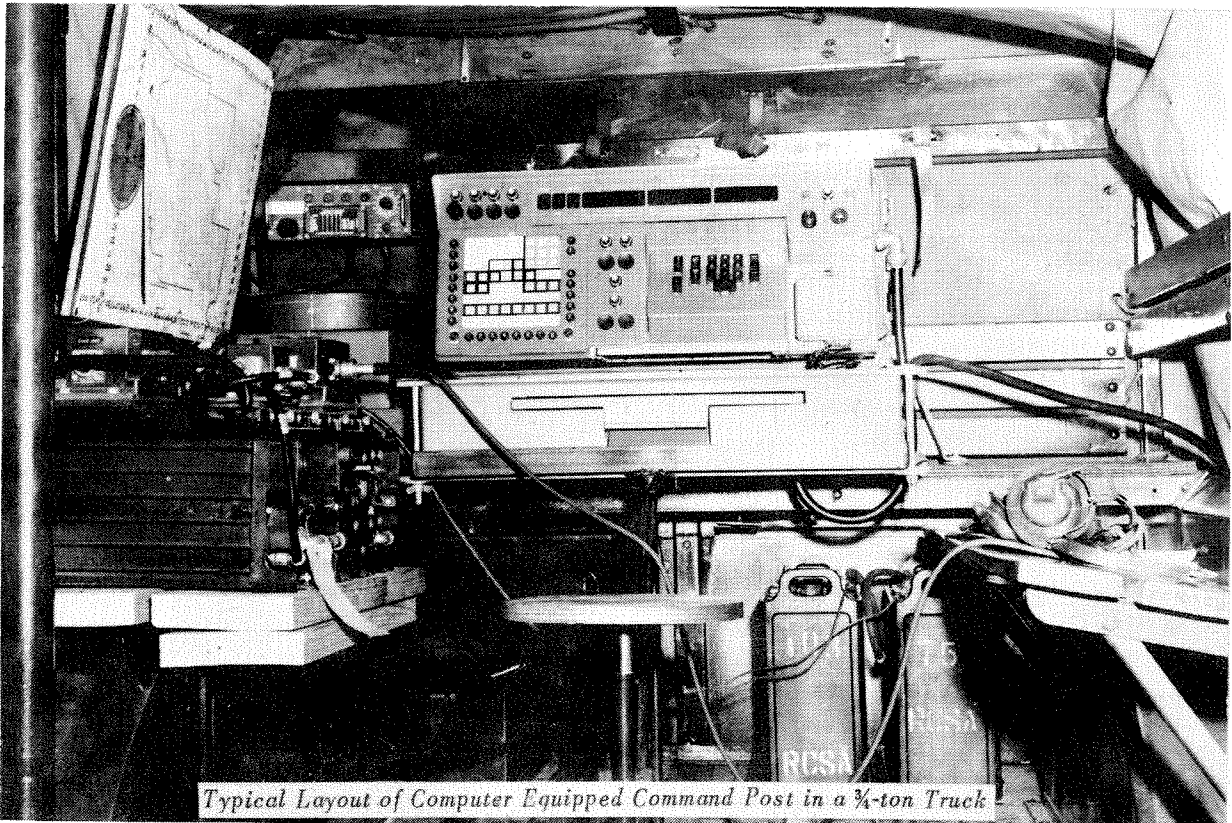
The United Kingdom is actively pursuing similar ADP programmes and is now in the process of developing a field, digital computer called Field Artillery Computing Equipment (FACE). FACE is being initially developed as a fire control computer but, similar to the FADAC system, it can be expected to be applied in many other roles.

Canada is developing its own computer for initial application as the core of the sound ranging ADPS. This project is taking advantage of the information gained in the development of FADAC, FACE and other advances in the scientific and engineering fields. It is anticipated that it will be faster, lighter, less expensive and more reliable than either the FADAC or FACE systems. Since it is a general purpose computer its usefulness will only be limited by its memory storage capability and the machine programmes that can be written for its use.

At this stage, perhaps a word of caution is in order. Our present, simple, flexible manual skills must not be lost for they will most certainly be needed on occasion as "back-up" for automation. Similarly a computer used in fire control cannot magically produce "first round hits". Prime inputs, such as survey, target location and meteorological data are of the utmost importance if the full benefit of a computer is to be realized.

ADP equipment developed for, or to be used by, gunners must be capable of operating over the tactical radio and line nets and/or the area communication system applicable to the time frame. The ultimate value of ADP equipment is only achieved when it is integrated into an ADPS which includes data transmission. However, it is not necessary, and in fact, undesirable, to wait for development of a complete ADPS before introducing ADP into the artillery.

In summary an ADPS is an extremely fast, accurate moron with a fabulous memory. The use of the system is basically limited only by the ability of the individual to tell it what to do. Therefore, its application increases, rather than decreases, the need for human intelligence and initiative.



Typical Layout of Computer Equipped Command Post in a 1/4-ton Truck

THE HYACK ANVIL BATTERY

Gunners have fired many strange and unique weapons throughout the years. Beginning with the first known gun called Vasi or Pot de Fer, invented by a German Monk in 1313, which fired an arrow out of a vase shaped receptacle, guns were improved until we have our present day sophisticated equipments.

In 1870, a curious artillery piece was devised in New Westminster, BC, called an anvil gun. An anvil battery was formed which claims to be the only one of its kind in the world. The following article by PW Luce appeared in The Daily Colonist, April 25, 1965.

New Westminster, BC, has a special reason for remembering Queen Victoria, for the Royal City owes its name to the good Queen. The pioneers were much concerned over matters of local interest, and in the 1860s a great controversy raged over the spelling of the name of the future town. Should it be "Queenborough" or "Queensborough"?

As it was impossible to agree on whether there should or should not be an "s" in the name, somebody had the audacity to refer the matter to the Queen. The disputants agreed that her decision should be final.

Queen Victoria blandly cut the Gordian knot. With no great show of originality, she declared that the place would be called "New Westminster", and that mouthful was slapped on the struggling village. There is a section of the city known as Queensborough.

Though all the residents of the place were disappointed at Queen Victoria not choosing either "Queenborough" or "Queensborough", their patriotism did not falter. They showed their loyalty on every possible occasion, but particularly on the Queen's birthday, the 24th of May.

In 1870 somebody had a brilliant idea. The Queen's birthday should be celebrated with a royal salute by artillery.

Fine! But there was a difficulty. There was no artillery in New Westminster.

The ingenious pioneers solved the difficulty by organizing the Honorable Hyack Anvil Battery, the only Anvil Battery in the world.

"Hyack" is a Chinook word meaning "Hurry Up", and was in common use at the time, when Chinook was the lingua franca of the coast people.

Anvils instead of artillery can produce a

satisfactory salute. After a few experiments and a few burnt fingers, a satisfactory technique was developed, which has not changed much in nearly a century.

Johnny Reid had a blacksmith shop on Eighth Street, near Columbia Street, and was active in the formation of the Hyack Anvil Battery. Two of his anvils were dragged outside, a big measure of powder spread over the top of one anvil, and then the other anvil was set on top of it.

A torch was applied to a fuse, and the top anvil was thrown high in the air with a roar that was almost as good as that made by a cannon. The artillerymen who were all young — and who included many Sappers sent out from England in 1857 — were satisfied, and celebrated the occasion in the proper manner of those days.

Tom Ovens, who later became Mayor, was one of the first of the anvil crowd. So was Captain Adolphus Peele, a weather prophet whose friends were legion.

All the originals are long since dead. Their descendants still play their part in the May 24 Hyack Anvil Battery Salute, though the ceremony now takes place in front of the city hall on Royal Avenue.

The Anvil Battery has been active only once a year since 1870, with the exception of 1939, when on May 29 a salute of 21 "Anvil guns" was fired in honor of the visit of King George and his queen to New Westminster.

Their majesties made no comment on the ceremony.

The gun crew all have definite duties to perform, and all do them right well. The captain is also a powder monkey, and there are right-hand hoisters and left-hand hoisters, who have the heavy job of getting the top anvil back in place 21 times.

There is a chalker-off, who keeps count of the detonations and a swabber-off, who sees to it that no lingering spark is left to interfere with arrangements.

A toucher-up and a blower-up share the long stick used to touch off the fuze, and there is a water boy who has very little to do, under the sharp eye of the adjutant.

Probably the most important post is the one held by the medical officer. It is the duty of the medical officer to certify that all members are fit for duty, but this a mere formality. The real test comes after the salute, when the medical

officer discovers that every single man is in need of refreshments. Fortunately, he is in a position to administer relief right away, having come well prepared for emergencies.

There have been many medical officers since 1870, but the most popular of them was Nels Nelson, proprietor of the New Westminster Brewery, who knew what to do even in prohibition days.

2 RCHA EXERCISE RAINBOW BRIDGE

Captain WF Dorey, CD

The highlight at practice camp here in Germany is always the CRA's exercise. This year was no exception, but a new twist was added to make it even more interesting. The CRA put Battery B of the 2/27 United States Field Artillery Battalion under command of 2 RCHA for the exercise.

Having attended Staff College in Canada, and being well versed in North American ways, the CRA appropriately named his exercise, *RAINBOW BRIDGE*.

Battery B is a fully tracked battery having M109 self-propelled 155mm howitzers, with the other vehicles in the battery being either M113 or M577 APCs. Needless to say, we were quite envious of their mobility.

Liaison with Battery B was effected by attaching one of 2 RCHA's Battery Captains to the battery's fire direction centre (FDC) or, in our terms, the command post. He had a radio on the regimental net and was allotted callsign 4. Many readers will recall that this was basically the same system used in Korea whenever an American battery came under command of a Canadian field regiment there.

During moves, the Canadian liaison officer travelled directly behind the FDC vehicle, and on arrival at a new position he would take his remote and set up shop in the FDC which was permanently mounted in an M577 APC. He received Canadian fire and movement orders over the regimental net, interpreted them, and passed them to Fire Direction Officer for execution. Conversely, the American forward observers passed their fire orders over their own battery net to the FDC, and if more than their own battery was to engage the target, the Canadian liaison officer would pass the orders on to one or more Canadian batteries, as applicable, over the regimental net.

In an American field artillery battalion, technical control of fire is much more centralized than is the case with us. For example, on receipt of a fire mission from one of the forward observers, the battalion S3 (same as our RCPO) details, among other things, the batteries which are to engage and which battery will do the ranging. So that Battery B could compete for ranging on "M" targets, our liaison officer included *B will adjust*, in the initial orders for each such target. This enabled the battery to make all the normal preparations for ranging and report *ready* on the regimental net. If ranging was done by another battery, Battery B would follow the corrections in the normal Canadian manner and was thus in possession of the necessary data to fire, when fire for effect was ordered.

Our system of competing for the privilege of ranging was eagerly accepted by the Americans. Had their system for carrying out safety checks been as fast as ours, they would have earned a fair share of ranging on M targets.

The forward observers were at first surprised and then elated to learn that with us they could nominate as many guns as they thought necessary to deal with a target. On the last day of the exercise, they used Canadian terms in their fire orders completely. This speeded up the whole process of engagement of targets immensely. That day, as a matter of fact, it would have been impossible to tell at the sharp end that we had an American battery in the regiment had it not been for the American uniforms in evidence.

Though of short duration, exercise *RAINBOW BRIDGE* proved that co-ordination of fire and movement between Canadian and American artillery units or sub-units can be done without extensive previous training or experience. The attachment of Battery B was a valuable experience for 2 RCHA. The success of the exercise was in large part due to the wholehearted spirit and co-operation shown by our American fellow gunners.

6e REGIMENT D'ARTILLERIE DE CAMPAGNE (MILICE)

Le 6e Régiment d'artillerie de campagne commandé par le Lt-Col JG Lefebvre est la seule unité d'artillerie dans le secteur de l'Est du Québec et possède des batteries à Lévis, Beauport et Montmagny.

La milice s'étant surtout entraînée en survivance nationale, le nombre d'officiers, de sous-officiers et de canonniers réellement qualifiés en artillerie devint très limité. Le retour à son rôle particulier a exigé des membres de l'unité un effort considérable et soutenu afin de reformer les cadres et d'amener l'unité, dans le plus bref délai possible, à un haut degré d'excellence.

La réorganisation de la milice récemment effectuée a apporté de nombreux changements à notre organisation. C'est ainsi que nous avons perdu trois batteries, soit celle de New Richmond, Gaspé et Arvida et que l'ancienne compagnie B d'infanterie de Montmagny qui appartenait aux Fusilliers du St-Laurent est devenue une batterie de notre unité.

ENTRAÎNEMENT INDIVIDUEL

Pour les fins de l'entraînement individuel, chacune des batteries avait la responsabilité des cours de recrue et de milicien entraîné tandis que les cours de spécialités étaient organisés par le Régiment. Ces derniers comprenaient des cours d'assistants techniques, canonniers, signaleurs ainsi que des cours d'officiers de tir. Ces cours furent donnés par les anciens membres de l'unité qui possédaient les notions d'artillerie ainsi que par des membres du Cadre des Instructeurs de la force régulière. Nous nous sommes vus dans l'obligation de donner de l'instruction deux soirs par semaine ainsi que les fins de semaine à trois endroits différents: Lévis, Beauport et Montmagny.

Pour les cours de techniciens se donnant à Montmagny, les instructeurs venaient des batteries de Beauport et de Lévis puisque aucun n'était disponible localement. Malgré l'effort exigé, tous ont accompli leur devoir avec enthousiasme et les résultats obtenus ont récompensé leurs efforts. D'ailleurs le retour au rôle traditionnel de l'artillerie a suscité de la part des candidats beaucoup d'intérêt facilitant ainsi la tâche des instructeurs. Plusieurs de ces cours furent donnés à l'école militaire de Farnham durant l'été, nous permettant alors de qualifier d'autres candidats.

ENTRAÎNEMENT COLLECTIF

L'intensité des cours a facilité l'entraîne-

ment collectif et les exercices de fin de semaine à Valcartier. Par la suite nous avons participé

à un tir de munition de combat au niveau de troupe au Camp Gagetown les 21 et 22 novembre 1964 et ce fut le comble de notre entraînement. Le printemps venu nous avons profité d'autres fins de semaine à Valcartier et de nouveau nous sommes allés à Gagetown les 15 et 16 mai 1965. Mais cette fois les manoeuvres étaient au niveau de batterie. Nous avons voyagé à Gagetown par avion bien que la deuxième fois un groupe alla par autobus.

Le 1er Régiment d'artillerie de la force régulière nous a reçu très cordialement durant ces deux jours et nous avons pu constater les avantages de cette nouvelle politique de compléter notre entraînement par des exercices de tactique avec eux. Ces déploiements furent appréciés par tous les membres de l'unité. La dernière année où nous avons pu tirer remontait à l'été 1959. Nous remercions les membres de ce régiment de l'accueil chaleureux qu'ils nous ont fait et le privilège de goûter aux manoeuvres à double action et à feu. Nous espérons pouvoir renouveler cette expérience dans un avenir rapproché.

COMPETITION

Cette année l'entraînement fut, nous le croyons, un très grand succès et le résultat concret de ces efforts fut l'obtention du trophée Archangel. Ce trophée est mis en compétition entre tous les régiments d'artillerie de milice du Canada afin de reconnaître et de décerner à l'unité la plus compétente le trophée annuel. Nous avons été jugés sur le plan administratif, entraînement et sur la tenue générale de nos troupes. Le comité d'inspection était composé d'officiers de la force régulière.

En plus, le secteur de l'est du Québec a organisé un concours dans lequel les unités de milice du secteur ont été invitées. Cette compétition s'étendait sur les sujets communs à tous les corps. Étant donné le très grand effort que nous avons mis sur l'entraînement spécialisé, les résultats obtenus ne furent pas ceux que nous aurions pu normalement obtenir.

ACTIVITES SOCIALES

Tout le temps que nous avons dû consacrer à l'entraînement nous a pratiquement empêché de pouvoir organiser certaines activités sociales. Cependant, nous avons tenu à avoir quand même notre souper régimentaire le 4 décembre 1964. Notre lieutenant-colonel honoraire, l'honorable

Jean Lesage, premier ministre de la province, participa a cet evenement annuel.

Presque tous les anciens commandants de l'unité étaient également présents, ainsi que plusieurs invités de marque.

PARADE SPECIALE

Etant la seule unité d'artillerie du secteur nous prenons part à tous les saluts militaires qu'il peut y avoir. Cette année nous avons tiré une salve à l'occasion de l'ouverture de la 4ème Session

de la 27ème Législature Provinciale, de l'inauguration du nouveau drapeau et lors de la visite du Shah D'Iran et de la princesse Farah Pahlavia.

Le jour de l'Armistice, un cérémonial a été organisé au cénotaphe de Levis en compagnie du Régiment de la Chaudière, d'un détachement du Royal 22ème Régiment, d'un corps de cadets et des vétérans de l'endroit.

Cette période du mois d'août 1964 au mois de septembre 1965 a été mouvementée et très satisfaisante. Nous espérons continuer ce progrès, et de fait, se devancer.



Lt-Col JF Lefebvre, Commanding Officer 6 Fd Regt Levis, Que being presented with the Archangel Cup emblematic of the best unit in Canada for the year 1964-65. From left to right – Lt-Col JG Cambridge, Competitions Committee Chairman, Lt-Col WS Jackson, President and Maj-Gen AB Matthews, Colonel Commandant

THE CLOSE SUPPORT ROLE HEAVY MORTAR OR FIELD GUN

Lt CW Marmo

The decision to equip the 4th Regiment, Royal Canadian Horse Artillery, with a battery of heavy mortars to serve beside a field battery of 105mm howitzers represents a novel change in artillery thinking in Canada. (Ed. See footnote). The two weapons are intended to perform a common role — close support — but the ability of both to do so gives an observer fertile grounds for comparison and contrast.

It is appropriate, first of all, to discuss the general principles of artillery employment. Supported troops require a high volume of accurate fire when and wherever they request it. Artillery must, therefore, have mobility and the capability to switch from one fire task to another without delay. The element of surprise demands an ability to concentrate and to predict fire.

The characteristics of the two weapons in question can appreciably influence these principles on the battlefield. The heavy mortar has but half the range of the howitzer, a critical feature, requiring it to be sited closer to our forward lines. Deployed there, it can fire only some 4,000 metres into enemy territory while the 105mm howitzer can reach up to 8,500 metres. The heavy mortar has a minimum range of approximately 1,000 metres as opposed to the direct fire capacity of the howitzer. Coupled with its close proximity to the front, this characteristic leaves the mortar baseplate position vulnerable to roving tanks or small battle groups. Consequently, a mortar battery will require increased anti-tank resources if it is not to burden the supported troops with pleas for protection.

As for fire control, the mortar is said to be *consistent but not accurate*. At once, the predicted fire capability comes under question, and a prominent part of any Continuous Fire Support Plan is compromised. Since it must register all targets before engagement, the mortar cannot be called a weapon of surprise. Once on target, however, it possesses one definite advantage; its high explosive bomb, which weighs approximately the same as a howitzer shell, can be hurled at the enemy at a rate four times the *intense* rate of the latter.

The actual production of fire, nonetheless, exposes another weakness in conventional operations. Troops advancing behind the cover of mortar fire must stay at least three times as far to the rear as behind fire put down by a battery of 105mm guns. Since the task of any fire plan in the attack

is to neutralize enemy activity, the term *close support* is largely negated since our infantry might conceivably be too far from the objective when the fire lifts. Since the bulk of its rounds tend to fall around the centre of a long and narrow beaten zone, the mortar can engage targets with an adequate degree of safety to closely following troops only when firing from positions well to the flank of the attack.

How do the divergent aspects of these two weapons apply in the three phases of war? In the attack, the mortar battery must move constantly to provide cover for advancing troops. Each move, even considering the process of leap-frogging, arouses the bleak prospect of fire being reduced at a critical stage in the battle. Also, it will be necessary to accumulate a much greater stockpile of ammunition to account for the greater rate of fire and also the relative inaccuracy of the mortar.

In the defence, the mortar cannot engage targets over as large an area as the field gun, a damaging factor in nuclear war or conventional warfare fought under threat of nuclear warheads, where dispersion of base-plate positions and gun positions is paramount. Although the howitzer is exposed to enemy spotting instruments, the high trajectory of the mortar renders it particularly vulnerable to detection by radar devices and to consequent retaliation. Continual reconnaissance, the preparation of alternative positions, and a high degree of mobility must always be maintained.

In conclusion, the 105mm howitzer would seem to be a more reliable weapon in the close support role in a large scale conventional war. Supporting a local battalion thrust, and providing fire for a large scale set-piece operation, are not quite the same thing, and a heavy reliance on the mortar over the howitzer in certain circumstances could lead to tactical debacles. The heavy mortar really finds its forte in irregular warfare in regions with unpronounceable names. Since it weighs eight times less than the howitzer, it can be transported easily by air and manhandled more deftly on the ground. Recent Viet Cong attacks on American airbases in Central Vietnam have been outstanding demonstrations of the mortar's potential in that type of employment; rapid deployment, intense concentrations of fire, and swift disappearance into the jungle.

Editor's Note —

Lt Marmo's essay was written prior to receipt of 4 RCHA's latest establishment. This unit now consists of three mortar batteries, ie, no howitzer batteries. Also, the essay is based on the premise that the 4.2 inch mortar would be the weapon adopted.

ON TO VERONA

Lt JD Chown RCA

Fifty-five years ago the readers of the Kingston Whig were confronted with this headline "FOUR DAYS MARCH OF THE ROYAL CANADIAN HORSE ARTILLERY". The opening paragraph of the first report stated; "*Never since the terrible experiences of the campaign of 1885 has any unit of the Canadian Militia been submitted to a mid winter march such as the Royal Canadian Artillery, of this city, will undertake this week in the wilds of northern Frontenac*".

To make further studies of winter equipment and operations, Major General Sir Percy Lake, Inspector General of Canadian Militia, ordered the RCHA at Kingston to undertake a four day mid-winter exercise under active service conditions. The exercise took the form of an advance to contact against a guerilla force operation towards Kingston from the Sharbot Lake area.

A composite battery was formed for the operation from "A" and "B" Batteries. All personnel were to be volunteers but since every officer and man volunteered it was, in effect, a picked battery, which consisted of 150 all ranks, 140 horses, and which was equipped with four 12 pounders and two of the new 18 pounder QF guns.

Major General Sir Percy Lake, acted as director of operations; his staff officers were Major JNS Leslie and Capt AZ Palmer, both RCHA. Major Ross, PAMC, was medical officer. The battery slate was as follows:

Battery Commander	– Lt Col HE Burstall (Later Major General)
Captain	– Captain E de B Panet (Later Major General)
Section Commanders	– Lt HE Boak (Later Brigadier)
	– Lt CF Constantine (later Major General)
	– Lt GS Browne
Transport Officer	– Captain LGO Roy
Quartermaster	– Captain GL Hamilton

Other nominal rolls are not available but the following were known to have taken part.

Sergeant Major	– Henderson
Quartermaster Sergeant	– Slade
Sergeant Major PAMC	– Wallace
Sergeant Wheeler	– Rider
Sergeants Farrier	– Stevenson and Currie
Sergeant	– Harte
Bombardier	– O'Leary

Cooks	– Allcock and Grangresh (spelling varied)
Gunners	– Aikens and Marshall
Driver	– Smith

Benny Bruin, a black bear, the battery mascot remained in barracks as it was felt the call of the north woods might cause him to linger overlong.

All personnel wore fur caps, buckskin gloves, "beefskin" mocassins, great coats and extra heavy clothing throughout. Also, each man was issued with a wool muffler and two pairs of heavy socks. For bedrolls, all had five blankets and two rubber sheets, with two extra blankets being issued for each horse. Twenty-five pairs of snow shoes were taken, but there were no reports of their use.

Three of the guns were mounted on wheel skids, while the remaining 12 pounder and the two 18 pounders were mounted on modified farmer's bob sleds known as the Drury carriage. Ordinary sleighs were used for transport of ammunition and other supplies. There were five of these, four of which were single rigs, these having been rented at \$3.50 per day for horse and driver. There was also an ambulance wagon mounted on skids, which proved to be much too high and tipped over at least once without damage, the driver being the only passenger.

Cooking and supply functions were carried out by battery personnel with the exception of baking bread which, having been prepared ahead of time by the Army Service Corps, accompanied the battery in a large civilian milk sleigh heated by an oil stove. No tentage was provided except for two bell tents for the housing of stores and supplies; a reserve of emergency supplies was held in a railway box car which was moved to Verona during the exercise. The papers made much of the fact that officers were to live under the same conditions as the men, and that hotels and other local accommodations were not to be used. No canteen was carried, in observance of the local option.

On the morning of the 15th of February 1910, a large crowd gathered at the Tete-du-Pont Barracks (now Fort Frontenac) and at 9:45 AM the band began to play; five minutes later Lt Col Burstall and the staff inspected the battery. At 9:55 Sir Percy Lake entered the gate and took the General Salute. Almost immediately the order to move was given and the band led the column through the Place d'Armes along King Street to Princess, up Princess to the Sydenham Road and thence to the Portland Road. As the battery moved out every dog fell in and followed his master.

On reaching the open country, the tactical exercise began and was continued all day until the



battery had covered the twelve miles to Murvale, where the unit bivouacked in the North Wood just behind the post office. The only incident of the day was the breaking of two limber poles which were replaced at Murvale. The battery arrived at Murvale between 4 and 5 PM and by six o'clock the horses had been fed and blanketed, and the cooks had prepared Irish stew and coffee for supper. The stores tents were then erected and those not on guard or picquet duty prepared for an evening of songs and hilarity around the open camp fire.

The weather prior to the exercise had not been good and "Hicks", a well known Yankee weather prophet, had predicted a worsening during the next few days. Throughout the day the temperature had been around zero and winds were up to 18 miles per hour. Rain and sleet fell during the night and the sleeping men looked like frosted cakes when the morning bugle sounded at 6:30. Breakfast was served at 7:30 and by nine o'clock the battery continued to harass the enemy in the direction of Verona. The road which ran parallel to the K & P Railway was heavy with snow and the going was slow. The tactical scheme continued, broken only by a light lunch of bread and cheese and hot tea in liberal quantities.

The battery covered the twelve miles to Verona where they set up camp in Walroth Grove just south of the town. Again the horses were blanketed and fed while the cooks prepared supper, a splendid meal apparently. In the words of the reporter, "*all ate their fill feeling grateful to the people of the Emerald Isle for the invention of such a tasty and substantial epicurian luxury of miscellaneous composition*". Although the men and horses were fit and no sickness occurred, the battery was apparently plagued with the normal maladies that attack soldiers in inclement weather, for the whig reporter states, "*At 9 PM the section commanders served their men with Bovril "Bullhantis" and this liquid stimulated every man's digestive machinery into all kinds of activity making them move about with a hop, skip, and a jump*". During the evening, General Lake, accompanied by two local farmers, found an ideal shooting ground at Fourteen Mile Lake, which was well frozen, for the next day's exercise which was to include live firing.

The next morning after a breakfast of ham sandwiches and coffee - it was reported that one, Jack Aikens, had six sandwiches - the battery mounted and advanced towards Fourteen Mile Lake, where the guerilla force was reported to have established their camp. As the battery arrived at the edge of the lake, the enemy camp a large square of canvas - was spotted on another lake beyond the far side. Whistles were sounded, orders were given as the battery circled on the lake,

and the guns dashed across the lake and up a steep hill to its south, a ride that was described as a magnificent and spectacular piece of horsemanship. The 12 pounders occupied the crest of the hill and were soon in action. After about an hour of sharp shelling the guerilla camp had been destroyed and the local inhabitants, who had gathered from miles around, had been given the show of their lives, although one local farmer thought the guns would be better served if the men put their shoulders to the wheel during firing.

The guns were then limbered up and the battery galloped off down the ridge and up the lake to a small inlet where, since it was noon, the cooks built their fire and served a light lunch ofhardtack and tea, which sumptuous fare was served liberally to both soldiers and civilians. During lunch the alarm was sounded; a large column of guerillas had been spotted in the hills across the lake. The 18 pounders were brought into action and, after one correction, 48 effective rounds were poured into the enemy position routing him completely. After the horses were fed and watered, the battery returned the six miles to their camp at Verona, while the small boys of the area scoured the target area for souvenirs.

At seven o'clock it began to snow and by eight a thorough-going blizzard had developed. It was hard to keep the fires going and by morning the sleeping men shivered under a covering of snow. By 9 AM the baggage was packed and the battery was homeward bound. The roads were heavy and in places blocked with seven and eight foot drifts; but the horses knew they were on their way home and no whips were necessary. At noon the battery lunched briefly in Murvale, and at three-thirty o'clock a telephone message from Cataraque reported the battery passing through. It was just after four o'clock when the battery entered the gates of Tete-du-Pont. After a few remarks by Col Burstall (Sir Percy Lake had returned to Ottawa by train from Verona) the men and horses disappeared into their warm billets and within an hour all signs of the exercise had disappeared from view.

Despite the warnings of many civilians, no sickness occurred among either the men or the animals, and most comments were favorable except that one officer noted, "*The horses had lost flesh and were considerably shrunken and would probably be deficient of vigor and force in the future*". His view of the test was that it was extremely rigorous to say the least. Most papers noted that the battery had fared much better than the Russian Horse Artillery had during the Manchurian campaign. The circumstances, however, in each case varied so greatly that there is little room for comparison.

It was also noted that no disciplinary action was taken or required during the exercise and that

officers and NCOs were to be commended for the care given the men. On the twenty-first of February the following editorial appeared in the Toronto Globe:

EDITORIAL IN THE TORONTO GLOBE

— 21 FEB 1910

“Winter campaigning is scarcely a feature of the annual training of the Canadian Militia, and not since 1885, when troops were sent into the Northwest to quell the rebellion, have Canadian soldiers undertaken any serious work during the winter season. Last week, however, the Royal Canadian Horse Artillery volunteered for a four days march for the purpose of testing the suitability of winter equipment for campaign purposes, and of ascertaining by first-hand knowledge the sensations experienced in bivouacking in the open, with only the shelter of trees to break the wind and a mantle of snow for a covering. The march was finished on a Friday night, and the 150 officers and men and 140 horses returned to their barracks at Kingston none the worse for their experience. The whole march from the Limestone City to Sharbot Lake and return was a continuous conflict with frost and snow, while the roads were rendered difficult because of the drifts.

This route march will have an important bearing on the future training of the Canadian Militia. It has been felt for some time that experience under winter conditions might prove invaluable to

militia units, in view of the possibility of troops being required to take the field during the cold season. The Royal Canadian Horse Artillery, true to their traditions, have made the test, and what they can do successfully it is believed other troops can do also. Canadian soldiers need to learn how to bivouac comfortably in a snowbank, how to protect themselves and their horses against injury during intense cold, and how to travel rapidly on snowshoes over deep snow.

The R. C. H. A. is one of the finest permanent units in Canada, and its officers and men have always proven themselves capable of performing any duty required of them. In 1897 a detachment from this corps made an historic march into the Yukon and restored order in Dawson City. A few years ago when the government purchased the grounds at Petawawa the R. C. H. A. were sent up from Kingston and without the assistance of engineers hewed out for themselves a camping ground in the woods, erected shelters for their horses, surveyed and mapped the country, cleared spaces for artillery targets, cut roads through the bush, erected telephone lines, and otherwise prepared the camp for the non-permanent units that went to Petawawa for their gun practice. Whenever the government has any peculiarly difficult work to do they call on the permanent batteries at Kingston. The response is heartily and quickly given and the work always well done.”

A fitting postscript to a successful exercise



Left to Right — Maj JNS Leslie, Capt AZ Palmer, Maj-Gen Sir Percy Lake, Lt-Col HE Burstall

4 RCHA ON THE MOVE

Lt MD Apedaile

Since July 1964, when the regiment was designated as the artillery component of Canada's Special Service Force (SSF), we have been enjoying the rare and exhilarating experience of being an integral part of something brand new; we have participated in its evolution – from the theoretical concept of the force, through the trial and change period, to the stage of knowing our role, having our organization and unit training objectives, and lacking only some of our men and equipment.

The regiment retained its normal annual training routine for most of the year despite the number of radical changes which occurred periodically. The difference this year was the "New Frontier" spirit pervading the usual (perennial) atmosphere of courses, exercises, demonstrations, practice camps, and administration.

SEPTEMBER

The year really began on 11 September 1964 when the regiment returned from leave and paraded with the GOC Central Command, Maj Gen G Kitching, CBE, DSO, CD, in honour of the change of Command from Lt Col DG Struthers, CD, who left after three years as CO to join the Directing Staff at Canadian Army Staff College, to Lt Col

DW Francis, CD, who took over the Regiment after two and a half years as Director of Land/Air Warfare. Maj RS Cork assumed the appointment of Second-in-Command which had been temporarily filled by Maj J McGregor after Maj WE Sills departure in July.

The regiment had then just been instructed to undergo a major organizational change to prepare it for its new role as the artillery component of the highly mobile air portable Special Service Force. The new CO was immediately involved in assessing and implementing the first draft of our new establishment as a Light Regiment. The new organization called for a two battery regiment, one of heavy mortars and one of field guns – 105mm pack howitzers. Each battery was to consist of three troops. Difficult though the reorganization was, with much thought and discussion being necessary to re-allocate most effectively the various trades and groupings, the task was made easier because a shortage of manpower had forced M Battery to become virtually dormant the previous spring. V (Locating) Battery had also been considerably under strength. Its remaining members soon joined K and L Batteries pending formation of the independent Locating Battery in Winnipeg. Under the new draft organization, the Regiment consisted of K and L Batteries and RHQ. W (Medium) Battery and the AOP Troop, although not integral



sub units of the Light Regiment, remained under command of 4 RCHA.

Administratively, a garrison troop was authorized and formed to facilitate the administration of the regiment in its permanent station. The Garrison Troop Commander not only directly commanded and administered this troop but also became the repository for some fourteen Institute appointments ranging from Housing Officer to CO's Hobby Shop representative. This new system not only centralized and simplified administrative control, but also relieved the RCPO and other officers of extra appointments.

Maj RG Heitshu arrived in September and after a brief tour as AOP Troop Commander, took command of K Battery.

OCTOBER AND NOVEMBER

The month of October was spent conducting the routine but essential annual refresher training. Variety was provided by L Battery, under Maj WS Conrod, who conducted adventure training in the form of a large scale escape and evasion exercise entitled "*Broken Field*". The aim was to "*test and stimulate leadership on the part of junior officers and all NCO's; assess the qualities of endurance and initiative of all taking part; practise movement across country by day and night by compass; and finally, experience living amongst an alerted, hostile population with the minimum of food and equipment while wearing conspicuous clothing*". In groups of two and three the Battery was deposited near Perth, Ontario, and had to make their way to a friendly enclave a hundred miles away on the fringe of Algonquin Park. Civilians along the route were well briefed for their part by various news media and several "*escapees*" were caught by the efforts of vigilant farmers.

Maj McGregor, who was Acting Second-in-Command, left for Cyprus in November.

Several weekends in October and November were spent doing firing practice with various Militia units from Ottawa, Peterborough, North Bay, Sudbury, Sault Ste Marie, Kingston and Quebec.

DECEMBER

By the first of December, the new draft organization had been fully implemented. In anticipation of receiving their 4.2 inch heavy mortars, K Battery began mortar training on heavy mortars borrowed from 2 Canadian Guards.

The regiment was now into the winter training period and for the next three months unit courses were conducted, comprising Signals Group 1, Driver Group 1, Technical Assistant Group 1 and 2,

Survey Group 1, Detachment Commander's, Internal Security, Air Portability, Officers' Technical and OP Officers. The CO did not wish to let sub-unit practical training suffer during a three month hiatus because of the heavy drain made on personnel and equipment by the various courses, and a new procedure was therefore evolved to solve this annual dilemma of individual vs sub-unit training. Each Wednesday regimental courses would stand down and personnel rejoined their respective troops and spent the morning doing deployments and live firing. In the afternoon the equipment would be serviced and returned to the course stores before everyone proceeded on sports parade.

In December, two tragic deaths occurred which deeply affected the Regiment. On 3 December, Col EG Brooks, DSO, OBE, CD, was buried in Ottawa and 4 RCHA sent a 100 man escort, pall bearers, a Firing Party, and trumpeter to honour a respected and admired Gunner. On 14 December, Capt HA Fleury died when his aircraft crashed in a sudden snow storm near Barrie, Ontario. A special service held in the Camp Petawawa RC chapel two days later filled the church to capacity.

In December, the Brigade Headquarters and Minor Unit Officers joined 4 RCHA Officers' Mess in a move which was well received by all concerned. The new members made the Mess more interesting and lively.

The Christmas Season began with the Men's Christmas dinner on 18 December and presented the usual scenes of good cheer — Gunners demanding more beer, Senior NCO's involved in lively discussion with their Troop Commanders, 2 Lts sweating over huge piles of dirty dishes, and the CO and the BC's smiling benignly on the assembled crowd. The next event was the Officers-Sergeants' At Home held on 21 December in the Officers' Mess.

Christmas and New Year's came and went quite quietly as many people from Camp Petawawa were away for one occasion or the other. The Officers' Messes combined to hold their New Year's At Home in the 4 RCHA Mess and the New Year's Ball was held in the Guards' Mess.

JANUARY

In January, work began on a submission for a provisional amended organization for the Light Regiment, designed specifically for support of the Special Service Force. This establishment called for three two troop batteries and an RHQ. It also stipulated that the regiment be completely mortar equipped, and recommendations were put forward for the adoption of a new modern mortar in

place of the 4.2. In the meantime, K Battery trained on the 4.2, L Battery on the 105mm, and W Battery on the 155.

Early in January, Maj Conrod left the Regiment to join CAORE. He was replaced by Maj RP Bourne who had served as a Subaltern with 4 RCHA in Korea.

FEBRUARY

By February, all but two regimental courses were completed and more diversified training began. Winter survival refresher training was carried out and Command Post exercises began in order to consolidate skills just learned on courses and get the troops working as teams again before the spring.

During the month a few special events also occurred. Firstly, a detachment from L Battery visited and trained for ten days with its affiliated battery from the RA who were in Shilo for the winter. On 16 February, K Battery fired their mortars for the first time. Finally, towards the end of the month, a special Guest Night was held for Lt Gen JV Allard, CBE, DSO, ED, CD, and, in the spirit of integration, a Naval Officer, Commodore Charles, and an Air Force Officer, Air Commodore Ruttan were also invited.

MARCH

The routine established in February continued into March with stepped up intensity. K Battery had officially been designated to form part of the Allied Command Europe Mobile Force, and began to conduct air portability training. The CO and Maj RM Hemmingsen, BC of W Battery, attended the Staff Officer GM Course in Shilo returning in the middle of the month with suntans and tales of TEWT's in Juarez. 4 RCHA provided the nucleus of the Central Command Alpine Ski Team for the Army Championships in Valcartier.

A scheduled hockey game between 1 RCHA and 4 RCHA to be held in Gagetown at the end of the month had to be cancelled. However, a match was held at Petawawa on Saturday, 3 April. Although tied 3 - 3 at the end of the second period, 1 RCHA won the hard fought game 5 - 4.

The following Tuesday and Wednesday, at a special conference in Ottawa for senior officers of the three services, the Minister announced the basic Command structure for the Canadian Forces. 4 RCHA consequently became a part of Mobile Command. On 9 April, W Battery became 2 RCHA's second medium battery but was to remain attached for all purposes to 4 RCHA for the time being. Early in the month, part of K Battery spent two days in Trenton, Ontario, practising aircraft loading drills on a C-130 Hercules.

APRIL

On the 3rd of April, the regiment sent a 200 man escort and a saluting troop to Ottawa for the funeral of Gen HDG Crerar, PC, CH, CB, DSO, CD, a famous ex-Gunner and one of Canada's best known soldiers.

As the snow melted, the batteries sloshed out to the field for more frequent deployments and the first real test of the new combat clothing and "water proof" boots. Even though the conditions were initially rather adverse, they provided a very real opportunity for GPO's to actually search for "firm and level gun platforms" and no one complained because the various Gunnery Competitions were not far off.

The melting snow brought with it the threat of floods and parts of the regiment spent a few weeks on standby - anywhere from 24 to 3 hours - for flood control operations in the London, Ontario, area. Fortunately we were not needed.

By the end of April, the ground was fairly dry and, on the 29th, the regiment put on a comprehensive and well rehearsed demonstration for a large group of RMC third year cadets. This was the first real opportunity in 1965 for the whole regiment to work together and conduct live firing and the rehearsals were a valuable opportunity for the batteries to shake out after the winter. The OP parties were able to observe and compare the effect of fire from three batteries all firing different weapons.

MAY

The first week in May was spent practicing for the Detachment Commander's competition which was held on the 7th. Battle Efficiency PT Testing occupied the next week and any spare time was eagerly used for deployments and the evolution by the various troops of special streamlined SOP's for Quick Actions. The Troop Competition occurred in the third week in May and proved, as usual, to be an excellent device for encouraging efficient teamwork in all troops.

Announcement of the Massive Armed Forces Day parade to be held on 12 June, forced cancellation of the Battery Competition scheduled for the second week of that month. The remainder of May was spent in completing Battle Efficiency Tests and preparing for a rash of special events.

On the 26th, the regiment paraded in honour of the 110th Birthday of the Royal Regiment of Canadian Artillery. During the parade, the CO presented several awards and trophies and spoke to the unit about its new role in the SSF which might require 4 RCHA to participate in peace keeping operations anytime, anywhere.

Further celebrations were held on Saturday, 29 May, in conjunction with the Camp Petawawa Diamond Jubilee Open House at which the regiment participated in various demonstrations including the firing of the 9 pdr by a crew dressed in pre-war dress uniform and doing the gun drill of the time. Following the Open House, regimental Birthday Balls were held in the Officers', Sergeants' and Junior Ranks' Messes.

JUNE

Three days later, on the 1st of June, the regiment took part in a farewell parade for Maj Gen Kitching, our GOC, who was retiring after 35 years in the service. Troops from all the Field and Static Units made up the parade which was held on the 4 RCHA parade square and included a drive past inspection by Maj Gen Kitching and march pasts by the troops.

During the year, the different major units in Camp Petawawa had been competing in a variety of sports for a special Diamond Jubilee trophy. Throughout the contest, 4 RCHA was running neck and neck with 2 Canadian Guards for first place in total points. However, in the end the Guards triumphed and we finished a close second.

Preparations now began in earnest for the Armed Forces Day in Ottawa. 4 RCHA was to provide two 100 man "companies" in combat clothing, a battery of 105's and a battery of 155's. Two staging camps were set up in conjunction with the other units attending from Petawawa. The first was a tent camp bordering the runways of Rockcliffe Airport and the second was a concentration area at the Connaught Rifle Ranges ten miles west of Ottawa where the parade contingent would stop for gas and a hot meal after the parade. While advance parties set up these areas, the

participating vehicles were carefully cleaned and repainted.

The afternoon before the parade, the regiment moved down to Rockcliffe and next day everything went off without a hitch. The troops returned to Petawawa and spent the remainder of the weekend preparing, at last, to go to the ranges for a week's practice camp. Early Monday morning, the regiment, less K Battery, moved into the field. The following day K Battery departed by air for Newfoundland and Gagetown where, for six weeks, they engaged in joint training with 1 RHC (Black Watch), the battalion with which they are affiliated in their AMF(L) role.

Because of other commitments, this was the first real opportunity to coordinate training at the battery level and therefore each battery and RHQ spent most of the week conducting sub unit training. On Wednesday, the 16th, the regiment stood down for the afternoon and the officers came back to camp to attend a Garden Party in honour of Col GF Stevenson, CD, the retiring Camp Commander. During the party, the results of the Part 1 Lt to Capt exams were received, and there was great jubilation at the news that all 4 RCHA candidates had passed.

On its return from the field, the regiment was greeted with a number of interesting variations of the rumour that W Battery was going to Cyprus. With K Battery away and L Battery preparing to conduct the artillery portion of the impending Militia concentration at Camp Petawawa, W Battery was chosen to fire a 21 gun salute in Toronto to celebrate Dominion Day. The salute was a qualified success — the qualification being that only about 150 Torontonians, a TV cameraman, radio interviewer, and two newspaper photographers managed to attend the firing. On their return to



Petawawa, the saluting troop joined the remainder of W Battery and L Battery in conducting Militia training.

JULY

On the 15th of July, 4 RCHA was authorized to implement the new establishment (WE/RCA/38/1). The regiment was to consist of an RHQ, an attached Signals Troop, a Garrison Troop, and three mortar batteries with a total strength of 464 all ranks. The AOP Troop became an increment to the Light Regiment. At the same time W Battery was officially informed that it would be going to Cyprus at company strength under command of 2 Canadian Guards. The 15th of July was also a pay day!

For the remainder of the month, W Battery undertook special training to prepare itself for its peace keeping police force role. Maj Hemmingsen, who had been in hospital for some time for an operation, was posted to DLFOT in Ottawa and Capt WD Creighton took over the Battery three weeks later as they underwent the change from 155's to rifles.

Meanwhile, L Battery conducted air portability training as best it could although it lost several men each day as W Battery was made up to strength. At one point there were only 3 Gunners in L Battery, and regimental duty rosters became rather unsettled. On 28 July, a day of firing was held for the instruction of 65 members of the Young Officers' Tactics Course from the RCS of I.

During July, three new "Brandt" mortars had arrived; one light weight, one standard, and one rifled. Including the 120mm "Tampella" which had arrived in May, the regiment now had five different types of mortar. Trials are to be conducted this fall and winter to help determine which is the most suitable for our purposes.

AUGUST

Early in August, the regiment went on annual leave, W Battery returning after two weeks to complete preparations for Cyprus. After the leave period, several appointment changes occurred: Maj Cork has been posted to CFHQ Adm Unit and Maj Bourne became Second-in-Command; Maj A Sosnkowski has taken over L Battery and Maj DR Baker is expected shortly to take command of the newly re-emerging M Battery; and Capt SD Green has taken over as Adjutant from Capt SR Moore who



Lt-Col DW Francis presents Crosman Memorial Trophy to LSgt Fox RD, won by his detachment (see also CP LOG, page 33)

is now with DPCA at CFHQ.

Thus 4 RCHA finds itself entering the new training year somewhat bruised from the effects of contributing a battery to Cyprus and maintaining a battery at full operational status for AMF(L), not to mention the postings of some 400 officers and men in or out of the regiment during the year. Our outlook is a little more settled than last year, but we have an interesting and challenging time of organization and training ahead. W Battery is, in all probability, gone forever. K Battery retains its dual role as part of the regiment and part of the AMF(L) and will train in faraway places with contingents from other NATO countries. The old faithful 105's and 155's are gone and new 120mm mortars will take their place. Air Portability has become a key part of our overall function.

1966 promises further innovations and it seems that, for the time being at least, the regimental routine which prevailed from 1957 to 1964 is gone for good. In its place is not merely another routine but rather a constantly developing function as we move with the vanguard of Canada's Special Forces.

K BATTERY GOES AIR PORTABLE

Although the many changes which 4 RCHA experienced during the 1964-65 training year have been detailed elsewhere in this journal, the evolution of K Battery from a 105mm howitzer battery to an air portable mortar battery, deserves a brief summary of its own.

When the first draft organization of the new Light Regiment was received in 1964, K Battery was designated the heavy mortar battery. While annual refresher training was being conducted in October, efforts were being made to obtain some mortars with which the battery could train. When it became known that Canada's infantry battalions would probably soon delete heavy mortars from their establishments, K Battery borrowed a 4.2 inch mortar from 2 Canadian Guards (neighbours in Camp Petawawa), and began familiarization training for a small group of instructors.

On 11 December, K Battery fired their howitzers for the last time and a few days later began to draw 4.2 inch mortars, with which weapon they would train until equipped with a more up-to-date mortar with longer range. Before Christmas, familiarization training was well underway, and the month of January 65 and the first half of February were spent conducting detailed courses and mastering the different deployment procedures dictated by the characteristics of the mortar. It was found to be a novel experience, for field gunners, to deploy in deep snow at some distance from any road or beaten track, simply by placing the mortars in pieces on toboggans and hauling them to their specified platforms.

On 16 February a group from the Army Equipment Engineering Establishment in Ottawa came to Petawawa to test a new sight mount for the 4.2 inch mortar. It was at this time that K Battery first fired their mortars.

Towards the end of February, the BC, Major RG Heitshu, went to Norway to attend an exercise, and a battery officer, Lt MEAR Poirier, left for the Norwegian Infantry School near Oslo to attend a winter warfare course along with several officers from 1 RHC (Black Watch), the battalion which the battery supports in its new role.

During March, emphasis began to be placed on air portability training. The battery was fortunate in having as a troop commander an ex-RCAF officer, Lt FAW Jurgensen, who was a natural choice as Unit Emplaning Officer, and who was very helpful in giving the battery its initial air portability indoctrination. Two officers attended the Air Transport Officers' Course, and two officers

and four NCO's attended the Basic Air Portability Course at the Canadian Joint Air Training Centre, learning the purpose and practical applications of such things as Unit Air Staff Tables, Air Movement Tables, Aircraft Loading Tables, and Load Manifests. On their return, these officers and NCO's gave instruction in the more basic requirements of aircraft loading — such as load centre of gravity computations and tiedown applications — to the remainder of the battery. This was done both in the classroom and on mock-ups of the cargo compartments of various aircraft which were just being built in Petawawa in anticipation of more extensive air portability training.

By early April the battery was ready for more realistic training in aircraft loading, and on 8 and 9 April part of the battery went to Trenton, Ontario to practise procedures on a real C-130 Hercules aircraft. After this, we felt ready for the coming airlifts to Newfoundland and Camp Gagetown, NB, where we were to spend six weeks training with the Black Watch.

During the last two weeks in April, the battery spent much time in the field, putting into practice what had been learned in the winter, and preparing for a demonstration to be held on 29 April. At this time, the BC, BRO, BSM and Bty Sigs Sgt were in Germany observing an artillery practice camp at which procedures for controlling the fire of a number of batteries, in which different languages were spoken, were being put into practice for the first time.

For some time, thought had been given to various methods of securing equipment in the vehicles for airlift, and by the end of May, a standard system had been worked out. A metal bracket arrangement designed by the Battery Gun Fitter to hold a 4.2 inch mortar was installed in all mortar vehicles, and Command Post layouts were constructed in the command vehicles. These kits were designed to meet the requirements of minimum weight and maximum stability in anticipation of the different gravitational forces encountered when flying. All these arrangements had required the approval of the CO and the Brigade Commander before they could be installed.

By mid-June we were ready to move, and on the morning of the 15th, the Brigade Commander and the CO inspected the battery on the parade square before it left by road for a staging camp at Connaught Rifle Ranges, just west of Ottawa. Two Hercules aircraft were used to move the 157 men and 40 vehicles (including an increment of 1 Medical Assistant, 2 Signallers, and 1 Signals vehicle) from the staging camp to Newfoundland. Departing at 12 hour intervals, the battery had



K Battery vehicles being loaded into Hercules aircraft

arrived complete at Harmon Air Force Base, USAF, Newfoundland, by 0900 hours on 18 June. The troops initially found the island very cold (some snow on the ground even!) and windy after the warm spring weather of the Upper Ottawa Valley, but there was plenty of activity to keep them busy.

The first week's exercise was designed to familiarize the three troops with their affiliated companies of Black Watch. The second and third exercises were battalion advance to contact operations, which sometimes tended to become more like guerrilla warfare as the activities of the controlled enemy force increased in scope and efficiency. The training carried out in Newfoundland was especially advantageous for two reasons: The country was considerably wilder and more rugged than anything encountered before, and it was a new training area which demanded map reading ability and didn't allow *old sweats* to relax and find their way around without effort. One lesson learned was an increased awareness of the limitations of radio communication in rough terrain, and the consequent importance of a high standard of training in its use.

While in Newfoundland, one of the troops was moved a short distance by a Bell UH 1D (Iroquois) helicopter, with the men in the machine, and the mortars slung beneath in cargo nets. A slightly less war-like event was the Battalion Sports Day, held on 1 July, in which K Battery defeated the Black Watch in softball and volleyball, but ran out of luck in the horseshoe event.

On 15 July, using seven Hercules, the battery moved from Harmon Air Force Base to Fredericton in just under 12 hours. After participation in an exercise in Camp Gagetown, conducted to practice internal security procedures, the battery flew back to Ottawa and motored to Petawawa, the last group arriving on 28 July.

The efficiency of the battery in aircraft loading increased significantly with each flight. The RCAF had initially been a bit skeptical and nervous about letting *army people* load their aircraft, but during the final airlift they were obviously impressed by our capabilities and were happy to let us do the loading unaided.

On arrival in Petawawa, a few days were spent on maintenance and clean-up before the battery went on leave, looking forward to participating this winter in exercises in Europe as a trained air portable force ready to move anywhere on short notice.

Editor's Note:

Many readers will recall that B Light Battery RCHA was equipped with British 4.2 inch mortars and 75mm pack howitzers in Camp Shilo in 1949. In 1950 this battery was redesignated 1 Light Battery (Para) RCA. In 1952 the battery was equipped with M30 (American) 4.2 inch mortars, and in 1953 was redesignated Z Battery RCHA. Z Battery is now a sub-unit of 3 RCHA and is equipped with 155mm howitzers.

W BATTERY IS ASSIGNED PEACEKEEPING DUTIES

During one's career in the Armed Forces, he often hears rather strange and unbelievable rumours. However, when the word that W Battery was going to Cyprus started going around, it seemed to be the wildest one possible. Foundation was finally given to the rumour on 5 July when we were informed that W Battery was "tentatively" scheduled to go to Cyprus with the Second Battalion Canadian Guards (with rifles, not guns).

A period of great excitement and speculation followed the 5 July announcement. Who would go, when, where, how – everyone wanted to know? On 15 July, it was finally confirmed that the battery would be going.

Initially, it was thought we would be going on a slightly reduced battery establishment. A wave of fear went through the L Battery officers on hearing this since, with K Battery in Newfoundland, and W Battery quite a bit understrength, there was only one place to get the required men to build up W Battery. As it turned out, we are being sent on a rifle company establishment. This still meant 40 gunners were required from L Battery, but we were able to ease the blow by giving them a limited number of NCOs.

The 2nd Canadian Guards were conducting an Internal Security Course in the first part of July, so as soon as the word was out that we were going, two officers and two Senior NCO's from the battery were sent on it. Good use was made of the training they received as, the following week, they

in turn ran a course for the remainder of the battery. The riot control part of the course was carried out on the parade square, with the result that the windows of RHQ facing the square were very quickly filled with curious onlookers when the shouting and firing of blanks began.

The battery has now been organized to include a BHQ and three troops of three sections each. Our role in Cyprus is to assume the duties of a rifle company and we are attached to the 'Guards' for all purposes.

Final preparations for the departure date of 2 October 65 included further security training, much documentation, lots of planning and – alas – many needles.

The battery does not have its guns on this assignment, nor does it carry out any of the normal artillery duties. Nevertheless, a winter in the Mediterranean does have attractive features not found in the Upper Ottawa Valley, and the experience should be rewarding in many ways.

This assignment marks an interesting first for the Gunners. Not since Korea have they been called upon to carry out UN peace keeping duties, and it is a measure of the type of 'Peace' the world has experienced recently that now we are being used without our guns. The role of this expedition is, for Gunners, reminiscent of that of the Yukon Field Force which helped the NWM Police keep the peace in the gold fields just before the turn of the century.

QUICKLY NOW

1. What is the origin of the term *Master Gunner*?
2. Who rates a Seventeen Gun Salute?
3. How long, approximately, is a long sound ranging base?

4. When is Artillery Day for the Royal Regiment of Canadian Artillery celebrated?
When is Saint Barbara's Day celebrated?
5. What are the names of the Regimental marches of The Royal Regiment of Canadian Artillery?
6. What is the purpose of a muzzle brake?
7. When firing a ceremonial salute, what is the proper interval between rounds?
8. When were the first guns brought to Canada?
9. In what year was the Royal Canadian Horse Artillery granted its title?
10. When was the barrage first introduced?

(Answers on page 117)

Memorial Trophy Competition had an unenviable task on 7 May 1965. Major JE Crosman, now serving at HQ New Brunswick Area, donated the trophy to 4 RCHA in 1961 in memory of his father WO2 EE Crosman. The aim of the competition is to raise the overall efficiency of the gun detachments and to emphasize their true importance within the Regiment.

* * *

FROM THE CP LOG

This year the Regiment gained another band in full dress uniform. The trumpet band of 2 RCHA made its first appearance in the newly acquired full dress on Dominion Day, and is finding its services becoming ever more in demand for events ranging from military retreat services to German horse shows. Drum major Clattenberg has done an excellent job of ensuring that the quality of the music is not overshadowed by the splendour of the uniforms.

* * *

In the airlift age most things are possible. In February 1965, Shilo was the site of a unique meeting of L Batteries. L (Nery) Battery RA, came to the camp from the UK to practise operations in a cold climate and to carry out large scale airlift procedures over great distances. While in Shilo, the battery was visited by a representative group of all ranks of L Battery, 4 RCHA, from Petawawa. In addition to a common designation, both batteries share a close professional interest in the air-transportability of artillery support.

* * *

Major-General AB Matthews, the Colonel Commandant, visited 1 RCHA during the Artillery birthday celebrations in Camp Gagetown last May. The regimental activities, which extended over four days, included an equipment display and fire power demonstration, a Guest Night, an inspection by the Colonel Commandant, a mounted drive past and a garden party at the Officers' Mess. The Honourable Louis J Robichand, Premier of New Brunswick, was among the 400 guests at the garden party.

* * *

It has been ruled that the best gun detachment in 4 RCHA is the one commanded by Lsgt Fox RD of H Troop. Inasmuch as each battery of the regiment was equipped at the time with a different weapon, the judges of the EE Crosman

On 10 November the top event on the social calendar of Brandon, Manitoba, occurred when 26th Field Regiment RCA, CA(M), held its' Annual Military Ball in the Prince Edward Hotel. Guests of Lt Col JA Brereton and his officers included, The Honourable RS Boles, who was recently appointed Lieutenant-Governor of Manitoba, Mrs Boles. His Worship Major SA Magnacca, who is Honourary Lieutenant Colonel of 26th Fd Regt, Mrs Magnacca, Brigadier HW Sterne, Commander Manitoba Area, Mrs Sterne, and a host of friends of the regiment from Brandon and the surrounding area.

* * *

Major JA Haywood of the Royal Artillery and Captain RJ Torretto of the US Artillery represent Larkhill and Fort Sill respectively at RCSA. In contributing an international note to the school accent, they are supported by Captain JF Bertram of the Royal Australian Artillery and Captain WF Kelly of the US Artillery, both in Shilo to attend the Artillery Staff Course.

* * *

On Sunday, 21 Nov 65, a remembrance service was held at the Canoe River Memorial in Camp Shilo during which a wreath was laid by the Commandant of RCSA, Colonel JS Orton, MBE, MC, CD. It was fifteen years, to the day, since seventeen members of 2 RCHA, mostly of E Bty, lost their lives in the railway accident that happened just west of the Canoe River siding in the mountains of British Columbia. As they have in the past years, the ex-members of 2 RCHA in Shilo, with their wives, met at the memorial to remember those who died while on their way to play their part in the Korean war.

* * *

Colonel GP Marriott, ED, CD, of Montreal, who has recently been naval, military and air adviser to the Canadian High Commissioner, Karachi, Pakistan, took up the appointment of Commander Camp Shilo, in late December 1965. A former Gunner, he has returned to the appointment which he held in 1960, and vacated in September 1962 to go to Karachi.

* * *

In appreciation of his close association with the 3rd Regiment, RCHA, His Honour Errick F Willis donated a portrait of Her Majesty the Queen to the Regiment, which will be located in the hall alcove of the Officers' Mess. An identical portrait hangs in the Lt-Governor's official residence, Government House, in Winnipeg.

* * *

During Exercise CORMORANT, held in Newfoundland, B Battery of 1 RCHA, commanded by Major AW Curry, learned something of the thinking processes of saboteurs in a hostile environment. The battery, less guns was assigned the role of enemy troops attempting to infiltrate 1 RHC (Black Watch) positions with a view to sabotaging US Air Force installations at Harmon AFB. Climate, terrain and a suspicious populace conspired to hamper the saboteurs who, operating in small groups, nevertheless persisted in giving the Black Watch and the Exercise Control Staff a 'hard time'.

* * *

The annual gunnery competition to decide the winner of the Elkins Trophy is one of the highlights of the 1 RCHA training year. Last May the members of H Troop of H Battery experienced the thrill of winning and of seeing their Troop

Commander, Lt MF Clark, go forward, on a regimental parade, to receive the trophy from the Colonel Commandant.

* * *

Major LC Baumgart, the second-in-command of 1 RCHA, put together the right combination of driving and putting to win the Tri-Service Golfing Championship of the Maritime Provinces in September on the scenic Digby Pines course in Nova Scotia.

* * *

On 16 May 1965, Victor OP on the Shilo Ranges was the venue of an unlikely mixture of sounds produced by laughing children, chattering women, belching guns and roaring trucks. The 3 RCHA Open Action Competition for the Turner Trophy was made the occasion for a Family Day, with wives and children transported from Winnipeg by bus, sustained on hot dogs and pop, and seated in a sand-blown grandstand while the bread-winners went through their paces on the plain below. When all the scores, which were based upon speed and accuracy, had been verified, the winners proved to be H Troop of Z Battery, with 2Lt CP Czartoryski in the GPO position.

* * *

CANADA AND BRITIAN

EVALUATE AERIAL SPY IN YUMA TESTS

A new *aerial spy* under test at the Army Electronic Proving Ground's test division at Yuma soon will be turned over to the Canadian Army for further trials, also at Yuma. The project in progress now, involves test and evaluation flights of the AN/USD-501, CL 89 Canadian surveillance drone. Use of the US Army test facilities at Yuma comprises the American contribution to the Canadian-British financed project.

According to Major Adams, Canadian liaison officer at Fort Huachuca, the project started as a company venture in 1959 by Canadair Ltd, of Montreal. For the past four years it has had British and Canadian Army support.

The aim was to develop a simple, light-

weight, relatively low-cost machine that could fly by itself, gather information about the enemy in forward battle areas and return. The new surveillance drone can be operated under adverse battle conditions and it would be particularly effective in the face of strong enemy air defenses.

Canadair Ltd has managed the test at Yuma for the past eighteen months. The military services themselves now will take over the test while Canadair assumes a secondary role. More than thirty British and Canadian officers and men are now in Yuma, most of them with their families, in conjunction with the tests. Major Walter Johnston of the Canadian Army is in charge. The test range is committed to the program through June of 1966.

— From (US) Army Times

FRIENDSHIP WEEKEND

The Visit of L (Nery) Battery to 3 RCHA

Friday, 26 February 1965, marked the beginning of Friendship Weekend for the Gunners of L (Nery) Battery RA and the 3rd Regiment Royal Canadian Horse Artillery. Approximately one hundred members of L Battery, 2nd Light Regiment, Royal Artillery, arrived at Selkirk Lines in Winnipeg prior to the commencement of their winter training in Camp Shilo. The officers and men, led by Major PF Rodwell, were met by the Commanding Officer of 3 RCHA, Lieutenant Colonel WW Turner. The Regimental Drum and Trumpet Band paraded in honour of the visitors. Winnipeg was to be the location of L Battery's first leave since arriving in Canada, and all the gunners eagerly looked forward to an interesting weekend.

Friday afternoon was devoted to a widely varied sports program, enthusiastically participated in by all ranks. The indoor sports consisted of water polo, basketball, bowling and a small bore competition, and although the temperature was about twenty degrees below zero, the outdoor sports such as pistol shooting, broomball and snowshoeing proved to be the most entertaining. In particular, the members of L Battery who took part in the snowshoe races enjoyed themselves immensely since for most of them it was their first encounter with deep snow. Long and boisterous *Happy Hours* were the order of the day in the Messes following the exertions of the afternoon.

On Saturday morning a bus tour of the Winnipeg area was conducted for the L Battery officers while the visiting NCOs and men were taken shopping by their Canadian hosts.

In the evening mixed parties were held in the Officers' and Sergeants' Messes as well in the Junior Ranks' Club.

To commemorate the Friendship Weekend, L Battery was presented with a miniature bronze buffalo statue while the Regiment received a plaque bearing the crest of L (Nery) Battery.

Without a doubt the weekend was a smashing success with lasting friendships formed between personnel of all ranks. The keen sportsmanship and easy humour of the members of L Battery will always be remembered as the outstanding characteristics of Friendship Weekend. It is regrettable that such occasions for entertaining our fellow Gunners of the Royal Regiment do not occur more frequently.

CO-OPERATION WITH CIVIL AUTHORITIES

3 RCHA

During the 1964-1965 winter months 3 RCHA once again provided detachments for avalanche control in Glacier National Park. The four detachment commanders, who worked in co-operation with the Department of Northern Affairs and Natural Resources, were Lt GDC Scott, 2Lt KD Varey, 2Lt CP Czartoryski and 2Lt DA Lockridge.

On Easter weekend X Battery, commanded by Major DF Elkins, was placed on flood control duties in the St Vital and West Kildonan areas. Two days later a detachment from Z Battery, under Captain RK James, was sent to Emerson, Manitoba, to assist in sandbagging key civic installations.

During the first week in June, G Battery provided a detachment, commanded by Lt RW McKinlay, to act as a skeleton organization for a 200 man, civilian - police - military, search party which was organized to look for a small girl lost in the bush. Working in the heavily wooded area surrounding St Labre, Manitoba, the operation ended within eight hours when Gnr Lynch CR and Gnr Halladay DR found the child within a mile of her home.

3 RCHA SPORTS

HOCKEY AND SMALL BORE

The 3rd Regiment brought back an interesting style of hockey from Germany and introduced it to eight Manitoba towns, during the winter of 1964/65, and for the most part the *international* style of play pleased the fans.

Using the members of the team who had served in Germany as a nucleus, the regiment added some new faces and started to train well before the season opener. By the time the Lake Winnipeg Intermediate A League opened, the team was well conditioned and ready for the long winter. Early results were overwhelming with the team racking up one impressive win after another. Their fast skating positional play left the opposition standing still - at least in the first half of the schedule. As our early advantage from condition began to diminish, the opposition began to find a way to equalize the game - good old-fashioned body checking.

Although 3 RCHA had a fine season, finishing third in the high classed civilian league, one lesson was learned; the international style is beautiful to watch, but when it comes up against a body checking team, the pattern of play can be disrupted and the team can be beaten.

In addition to carrying the regiment's name to fishing towns, mill towns and larger urban centres in Manitoba, the hockey team with its accompanying band, attracted attention from all parts of Winnipeg with its regular news releases through co-operative radio and television stations.

Between periods, in towns like Gimli, Pine Falls and Beausejour, the regiment's band performed in sub-zero weather to audiences of Indians and Icelanders, Ukrainians and Germans and their performance was always greeted with enthusiasm and appreciation.

To leave no doubt of the unit's intention to play hockey, the same team was entered in the Inter-Service League, which consisted of RCAF and Army entries; the 3rd lost one game all season. A handsome trophy was added to the regimental trophy case to take its place alongside those from many other regimental endeavours.

Invited to play in the championship at Camp Shilo, 3 RCHA viewed the competition with healthy respect. After three days of hard, head-knocking hockey, the playdown went to the regiment, thus ending the long-standing domination of Camp Shilo.

Small Bore competition is a year round affair, with 3 RCHA including the traditional turkey shoots for the Christmas table. The regiment entered a team in B division of the Manitoba Provincial Small Bore League and placed first by a large margin. This won them a birth in the Provincial competition for the Whitehead Trophy, emblematic of rifle shooting supremacy in Manitoba. In this last event, the team shot a 486 to place third behind 18 Med Corp RCAMC Winnipeg with 491 and St John's Ravenscourt School, Winnipeg with 487.

Lt VA Coroy and Sgt Harrison WD proved to be the best shots in the regiment. Both completed the regular season of the regimental small bore competition with scores of 97.7 out of a possible 100. After a final tie-breaker, Lt Coroy was presented the Individual High Aggregate Trophy as a result of his perfect target.



Small Bore Team

Front row left to right – Gnr Patey LL, L Bdr Oake HG, Lt VAA Coroy, Sgt Harrison WD, Sgt Lowther AG. Rear row left to right – Sgt Patterson A, Sgt Gulovics PF, Bdr Dreger VW, Bdr Williamson MH, Sgt Nesdoly LJ
Missing – Sgt Balma RA

by Brig HW Sterne, DSO, MBE, CD, Commander Manitoba Area, inspected the regimental Quarter Guard on his arrival. In the afternoon the General Officer Commanding took the salute from the Regiment.

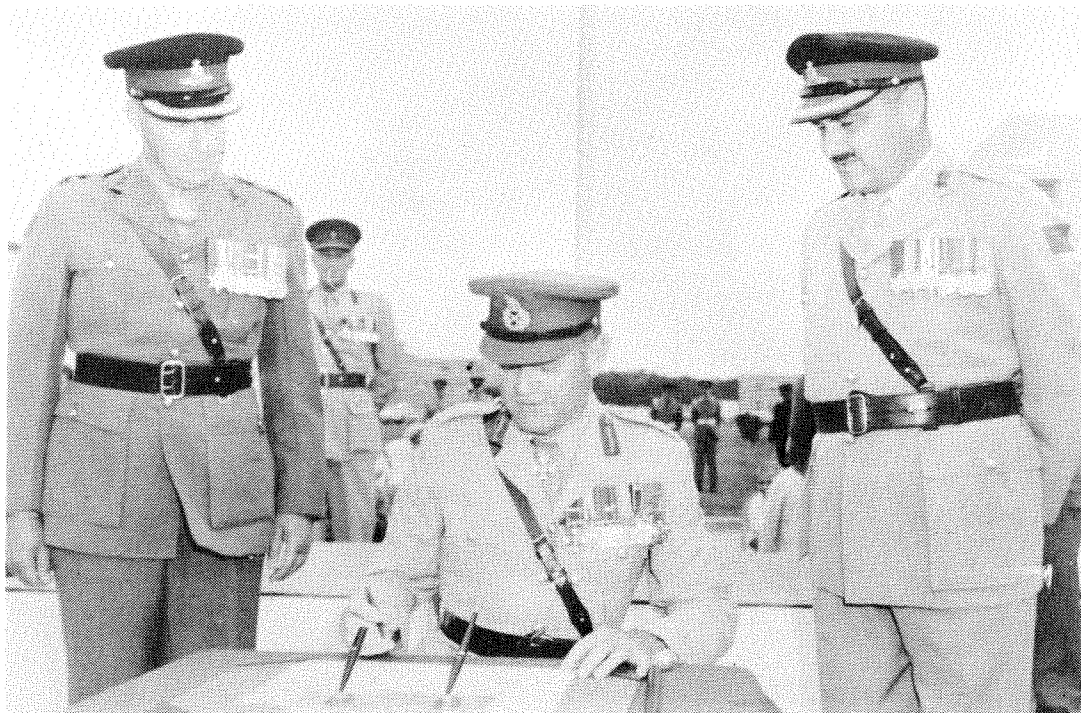
Following the inspection, Lt Col Turner addressed the regiment and handed the parade over to the General Officer Commanding who congratulated the regiment on its performance and turnout and introduced the new Commanding Officer. Following a brief address by the new Commanding Officer, the handover documents were signed. Lt Col de Domenico then took his place at the head of the parade and marched the regiment past the outgoing Commanding Officer. After the regiment had marched off, the regimental Trumpet Band played for a short time to the many spectators who had come to watch the parade.

Lt Col de Domenico is no stranger to the 3rd Regiment. He served as a Troop Commander, Battery Captain and Acting Battery Commander of J Battery from 1956 to 1958 and was the Adjutant of the Regiment in 1959. Prior to his new appointment, he was Second-in-Command of the 1st Regiment RCHA. Lt Col Turner, who had taken command of the unit in Germany in the summer of 1961, has gone to a staff appointment at CFHQ in Chief of Personnel Branch and has also been designated as the Corps representative in Ottawa.

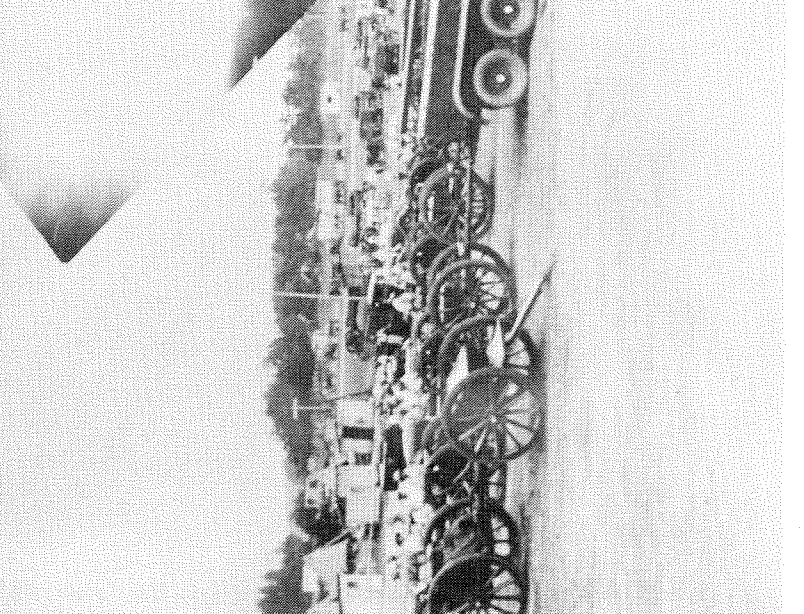
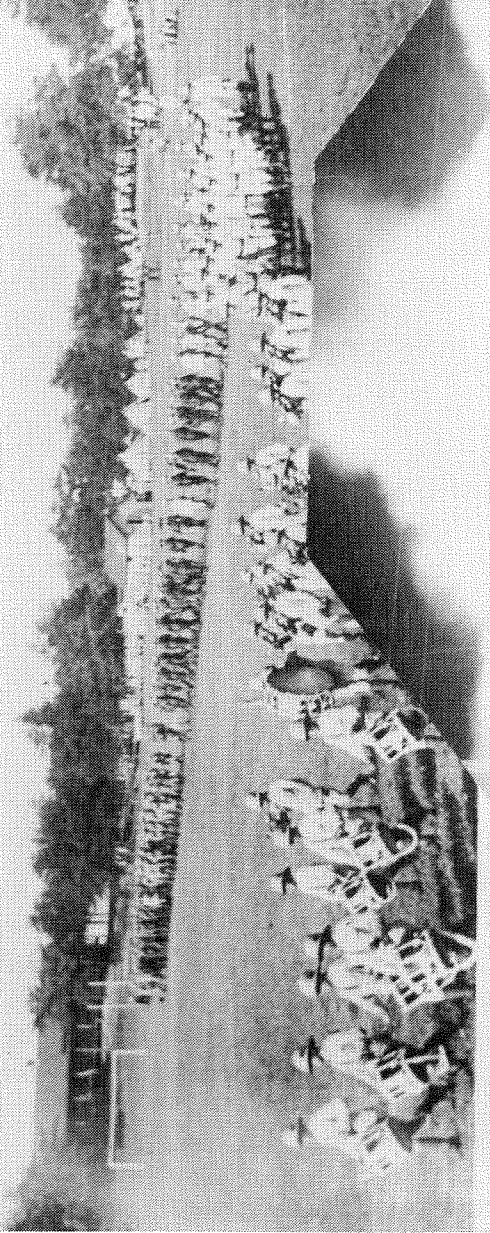
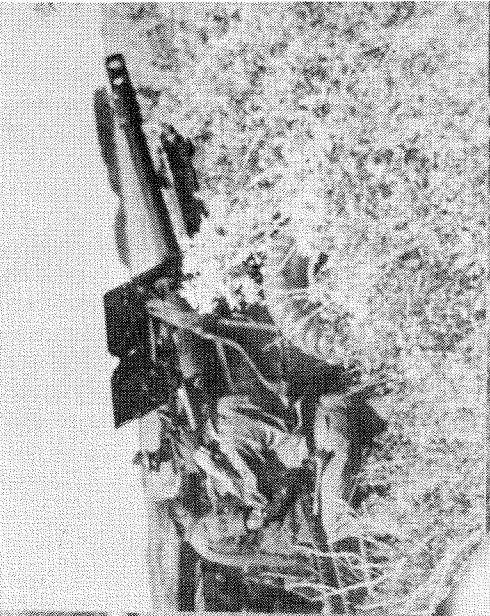
3 RCHA CHANGE OF COMMAND

On June 1965, Canadian Forces Headquarters announced that command of the 3rd Regiment, RCHA would change from Lt Col WW Turner, CD to Lt Col JEG de Domenico, CD. Command of the regiment was to change officially on 9 August 1965.

On the morning of 30 July 1965, Maj Gen JM Rockingham, CB, CBE, DSO, ED, CD, General Officer Commanding Western Command, accompanied



Left to Right - Lt Col WW Turner, Brig HW Sterne, Maj Gen JM Rockingham, seated, Lt Col JEG De Domenico



MILITIA IN PETAWAWA

For almost 60 years, Militia gunners of Eastern and Central Canada have been going to Petawawa for summer practice camp. The journey is the culmination of local training in armouries throughout the winter and spring months, and for veterans of the Militia has provided a fund of tales and experiences which grow more precious with the march of years.

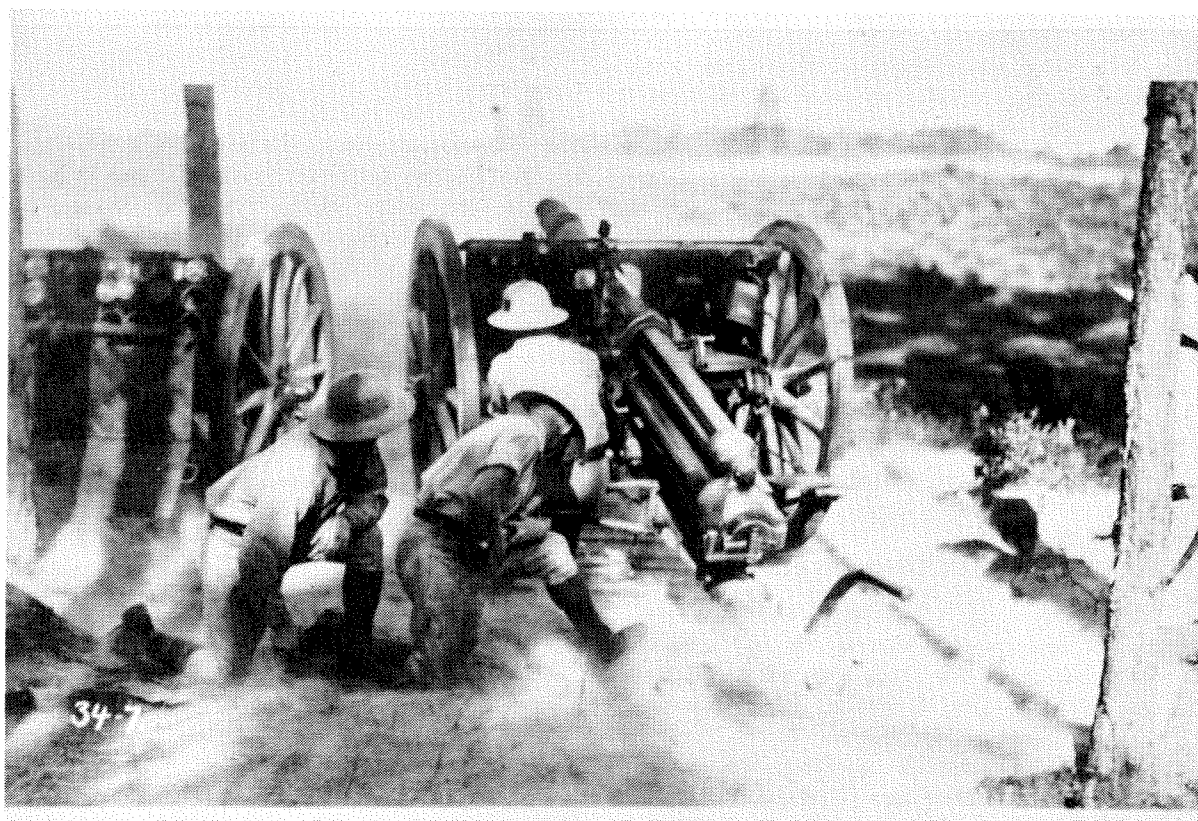
If the pines and the sands could speak, the OPs and gun positions of Petawawa could tell many a story which old gunners, once young gunners, cannot recall without wry grimace. Also, they could tell many a tale of individual and unit exultation resulting from happy meshing of shell and target, regardless of whether blind luck or cool calculation had been the dominant element.

For many years the greatest menace, indeed the only menace, to a blissful summer under the pines, was the red-banded IG and the hard-eyed AIG. These paragons, generally suspected of being born in a gun shed, supremely intolerant of human fallability, seemed to suppose that people went to Petawawa solely to talk gunnery, practise gunnery, breathe gunnery. The Militia knew that there were

also other things to be done in Petawawa. They did those things with great exuberance. The Regulars sniffed — or pretended to sniff. The *Friday Nighters* formed up at the Gun Park in the chill of the following dawn, ready for another day of battle against enemy positions which the IG was always the first — and sometimes the only — person to observe.

All too soon the practice camp would be over and the Militia dispersed from the Atlantic Seaboard to the towns and cities of Quebec and Ontario. Nobody could ever know who more enjoyed those visitations — the Militia or the Regulars. Each secretly harboured a great respect for the other, and each cherished a repertoire of stories, generally embellished with time and telling, which grew out of the challenges of Petawawa.

As patterns of organization, and emphasis in military posture, change to meet prevailing requirements, so has the Militia presence and activity fluctuated in Petawawa in recent years. During 1965, from 28 June to 10 July, ten RCA (Militia) units trained in the camp. L Battery of 4 RCHA assisted by conducting three deployment exercises each week and by supervising live firing each Friday. Each of the Militia units fired 100 rounds of HE. Although the tempo was somewhat more restrained than in other years, it was good to see the Militia once again firing guns amid the pines of Petawawa.



2 SSM TRAINING BATTERY

1964 - 1965

Major JG Henderson, CD

During the training year which started in September, 1964, 2 SSM Battery continued to carry out its role of training artillerymen in the use of the 762mm (Honest John) Rocket, and carrying the Honest John word to students at The Royal Canadian School of Artillery and various units, both Regular and Militia, in Western Command. In the process, the battery ran courses, participated in various exercises, travelled the Prairie Provinces by night and day, played its part in the life of the Shilo Garrison, and survived a major fire.

EARLY POSTINGS

Following participation in the 1964 Summer Concentration at Wainwright, and having taken annual leave in August, the battery returned to Shilo early in September faced with the immediate task of sending a large draft to 1 SSM Battery in Europe. At the same time, a number of officers and senior NCOs completed their tours of duty with the unit and were warned for postings to various units in Canada. Among the officers in this category were Captain WM Scott to 1RCHA; Captain RK James to 3 RCHA; Captain KA Chester, RC SIGS, to The Royal Canadian School of Signals and Captain JM Rockingham to retirement. Approximately three months later, Captain AF Robb also retired to civilian life. The replacement of these officers in addition to the subalterns, warrant officers, and senior NCOs who went to 1 SSM Battery, presented the unit with a major training problem which was eventually solved in an unusual but effective way as outlined later in this article.

Prior to departure for Europe, all ranks underwent annual refresher training in general military and special 762mm rocket subjects. In October the reinforcements moved to Europe in two large groups via Yukon aircraft from Trenton. Before departure, those leaving were entertained at a highly successful all ranks' dance in the Shilo Country Club and a special *happy hour* in the Junior Ranks' Club.

DIRECTOR OF NUCLEAR WEAPONS VISITS

The knowledge that integration of the forces was a fact came to the battery in October, 1964, in the person of the newly-appointed Director of Nuclear Weapons from Canadian Forces Headquarters, Group Captain CF Phripp, RCAF. Group Captain Phripp, accompanied by Wing Commander ZR Charko, spent three days with the battery

becoming familiar with Honest John equipment and procedures. One of the last tasks performed by the draft was a deployment demonstration for the visitors.

CO VISITS 1 SSM

Group Captain Phripp and Wing Commander Charko were scheduled to visit 1 SSM Battery in Europe immediately following their trip to Shilo. Since a number of training problems had arisen in the battery, it was decided that the CO, Major JG Henderson, should accompany them and take part in discussions with 1 SSM Battery and various headquarters in Europe. Results of the trip exceeded all expectations, and stand as an excellent example of the advantages of personal liaison. The CO returned with a brief case bulging with notes, orders and draft British and US pamphlets, all of which resulted in a complete review of the 2 SSM training programme. It was felt by many that the two batteries were working closer together than at any time since their parting in Picton in 1962.

OFFICER - NCO TRAINING

It was apparent that the large number of postings out of the unit in September and October would leave few trained officers and senior NCOs available to teach the newcomers, scheduled to arrive in the late fall. Canadian Forces Headquarters therefore agreed to delay the postings of the new men into the battery until the New Year, and to post in officers and senior NCOs who could undergo conversion training during November and December. The newcomers would then form the nucleus of the new troops and in their turn teach the soldiers posted in during the winter. The conversion course was conducted by Captain Robb, assisted by Sergeants Gardner and Douglas, both of whom were founding members of the battery. Shilo is not the best location in the world for teaching basic Honest John drills in November, because there are no buildings large enough to manipulate the equipment, and the weather outside is often too cold for serious concentration on a new and complicated subject. Nevertheless, we acquired enough Arctic clothing for all students and instructors, and the course was a success. It culminated in a two day and one night deployment exercise on the Shilo ranges just before Christmas, and the students proved that they were capable of carrying out all approved methods of mating and transfer in sub-zero weather by night or day.

REORGANIZATION AND WINTER TRAINING

The arrival of 1965 coincided with that of the new soldiers in the battery. Although they were new to the 762mm equipment, very few of them were new to the Army. Nearly all were Group 2 tradesmen on their second engagement, and many were looking forward to their second tour of duty in Europe. They were divided into two troops, each consisting of a troop headquarters, an assembly section and a launcher section. Lieutenant CA Moogk was named to command A Troop while Captain AM Zamoyksi commanded B Troop.

Winter warfare training was first on the syllabus. Exercise *FROZEN MUKLUK*, developed by Lieutenant DG Schott of B Troop, was noteworthy for the fact that the *Voyageur* helicopters of 1 Transport Helicopter Platoon, Royal Canadian Army Service Corps, of Canadian Joint Air Training Centre, Rivers, participated and carried out their first airlift of troops. Some members of the battery will probably remember the night that the temperature fell to 40 degrees below zero, long after they have forgotten the helicopter ride.

The remainder of the winter was spent in constant study of the Honest John, interspersed with daily doses of battle PT and weekly doses of general military refresher training. All tradesmen underwent an initial Honest John introductory training period followed by specialist training within troops for various RCA and RC SIGS tradesmen.

WINTER SPORTS

During the winter 1964-65, the battery entered a team in the Shilo Garrison Hockey League. Unfortunately the league was well under way by the time the new men arrived, and although our players did their best, they were outclassed by Headquarters Shilo and the Royal Canadian School of Artillery. Games against the RCA Depot and the Apprentice Training Battery was less one-sided and provided some diversion for spectators and players alike.

The unit volleyball team, with Sergeant J Gardner as captain, fared better and won the garrison championship.

The battery also produced a strong broom-ball team which held its own in garrison competition.

THE FIRE

In mid February, the battery suffered a serious set-back in the form of a fire which destroyed one half of the unit garage and much of the equipment in it. The fire was discovered shortly after 1100 hours on a very cold Saturday morning. Although the Shilo Fire Brigade responded to the alarm

immediately, the wood of the building was very dry and the fire, assisted by gasoline and oil in the vehicles, made short work of one half of the garage. Hard work by the firemen, fire picquet and volunteers in sub-zero weather held the damage to the part north of the fire wall. Nevertheless, the unit lost a number of vehicles and all of the unit RCME equipment. Fortunately, no special Honest John equipment of any significance was lost. Although the RCOC did an excellent job of replacing lost equipment, it was some time before the full training programme could be resumed.

ANNUAL INSPECTIONS

On 15 April, the battery paraded with the Royal Canadian School of Artillery for the Area Commander's annual inspection. It was a cold, grey day but the parade went well and Brigadier HW Sterne, DSO, MBE, ED, expressed satisfaction with the unit.

Immediately following the Easter weekend, the battery paraded again, this time for Major General JM Rockingham, CB, CBE, DSO, ED, GOC Western Command. Many of the families turned out to watch and the GOC congratulated the troops on their turnout and drill.

NEW EQUIPMENT

Spring and warm weather brought an increase in outdoor training, assisted by the arrival of new training equipment. For many years the battery had been training with inert versions of the M30 rocket which had been acquired on a standardization loan from the USA. This had always presented a training problem in that all live practices were carried out with the M50 rocket, which was different in many respects from the M30. However, an M50 training rocket arrived in the battery lines in the spring, and its use in training proved to be invaluable during the rest of the year.

THE SPRING DRAFT

With spring came a requirement for approximately 30 all ranks to be posted to 1 SSM Battery immediately. There were no fully trained men in the battery at the time and those selected to go underwent an intensive training period that emphasized essentials. They were despatched to Europe under command of Lieutenant DW Hawthorne and were subsequently replaced in 2 SSM Battery in early June.

LIEUTENANT GOVERNOR'S VISIT

The battery's first live shoot of 1965 was scheduled for May to coincide with 3 RCHA's annual practice camp. The press and public were invited to witness the shoot, and His Honour Errick F Willis, Lieutenant-Governor of the Province of Manitoba,



Maj-Gen RM Rockingham, accompanied by Brig HW Sterne inspects 2 SSM Battery. Others in photo from left to right – Maj JG Henderson, Cnr Lamoureux, Cnr Kemsley, Cnr McGean and L Bdr Lindop



2 SSM Battery Launcher Number Course. Here Sgt Bethell RW is instructing Cnr Villeneuve JK on the electrical check out of the M50 Rocket

accepted an invitation to be present. The official party flew from Winnipeg in *Voyageur* helicopters as guests of Brigadier HW Sterne, DSO, MBE, CD, the Area Commander. The shot, fired by Lieutenant JE Hawthorne's section, was completely successful. Unfortunately, the arrangements for such public shots become so elaborate to ensure that all spectators are safe, and at the same time well informed, that the launcher position tends to take on the appearance of a country fair. It was during preparations for this shot that someone uncharitably christened the unit *The Second Circus-to-Circus Missile Battery*.

GIBSON HOUSE

Early in June, the battery moved to the area of Gibson House in the south-eastern part of the Shilo ranges. A bivouac area was established and work around the clock began in earnest. B Troop conducted nearly all of their advanced training by night, while the newly formed A Troop carried out launcher and assembly training for the new replacements from dawn until dusk. Tactical headquarters controlled an almost continuous Command Post exercise for both of the firing troops and the support troop.

The battery stayed at Gibson House throughout the month of June. The officers were able to hold a formal dining-in night and the Sergeants' Mess entertained themselves and guests on several occasions. The men's canteen, which even had a television set, did a rush business throughout the whole period. The Signals Section proved to be a gold mine of talent and, under the leadership of Corporal Aubrey, an excellent folk-musician, provided *way down-east music* whenever occasion called for it.

The social highlight of the Gibson House period was the annual picnic when all families were invited to spend the day with the men in the field. The area rapidly took on a most unmilitary appearance as wives and children examined equipment, messes and *hoochies* with great interest and, in some cases, envy.

WAINWRIGHT

During the second week of July, the battery joined 1 Canadian Infantry Brigade Group in Wainwright to participate in the GOC Western Commands' annual exercise. The move to Wainwright was carried out under cover of darkness on three successive nights with halts at Yorkton and Dundurn, Saskatchewan. Our hosts in Yorkton were the 15 Field Regiment, RCA (Militia), who made their armouries available. In Dundurn the battery bivouacked on the ranges but was able to use the showers and canteens in the camp. Just before the battery's departure from Dundurn, a mating and transfer demonstration using

the M62 wrecker was presented for members of the Militia who were undergoing their annual week at camp.

On arrival in Wainwright, the battery bivouacked in the 3 RCHA area and spent the next few days on maintenance, a reconnaissance exercise, and presentation of a number of demonstrations for 3 RCHA and various RCA Militia units in the area.

The highlight of the Wainwright concentration for the battery was the firing of its second shot of the year. It was fired from the Coyote Hill area, in full view of all ranks of 1 Canadian Infantry Brigade Group, shortly after the cease fire of the GOC's exercise *TOLL GATE*. Once again the launcher position took on the air of a festival as the men of all units of the brigade group crowded around the edges of the safety zone. The shot, fired by Lieutenant HA Walinsky's section, was accurate, but unfortunately had to be delayed for several minutes while an unidentified unit drove leisurely through the danger area!

RCSA ASSISTANCE

During the training at Gibson House and Wainwright, the battery was accompanied by Capt RV Thompson, WO2 McKaig AW and S Sgt MacDonald MN of the Royal Canadian School of Artillery. This team had been charged with rewriting the Honest John publications in use in the Canadian Army, and their main role during the summer was to observe new procedures for inclusion in the new pamphlets. In addition, they operated the FADAC computer in an attempt to devise procedures for its use when it is issued to 1 and 2 SSM Batteries.

LEAVE AND MORE POSTINGS

Immediately on return from Wainwright the order every day was maintenance prior to the annual leave period. Even before leave started, the fall postings were coming in and Captain AM Zamoycki, CD, left for 1 SSM Battery during August, while the Commanding Officer, Major JG Henderson, CD, left for the post of Second-in-Command of 3 RCHA.

The 1964-65 training year ended with the announcement that Major HP Stickley, CD, would assume command on his return to Canada in October from United Nations duties.

HIN UND ZURUCK AUF DER AUTOBAHN

*Sennelager Scene*

Within three weeks of our arrival in Germany, in February 1964, we started off for our first practice camp on the Munster ranges of Northern Germany. This was supposed to be a six hour trip mostly by autobahn, but new environment, unfamiliar highway systems, and perhaps just a love of touring, led the odd packet and a few stray vehicles to extend it to eight or more hours on the road. However, the week following proved to be most valuable for battery training, and was an excellent shake-down for the unit as a whole.

The beginning of May was soon upon us and we were off to Munster once again, this time for two weeks of regimental training followed by two weeks of divisional artillery training. The camp was culminated by a regimental exercise run by the CRA during which many good lessons were learned. From there we moved on to the Sennelager Combined Arms Training Centre, where we joined the remainder of the 4th Canadian Infantry Brigade Group. Here we completed such things as annual classification, T'sOET and gas chamber training, as well as some company and battalion group exercises with our affiliated battalions.

Following Sennelager, which ran for three weeks, we returned to barracks in Fort Prince of

Wales for only a few more weeks before we were off again on a divisional artillery exercise lasting approximately five days during the last week of July.

Each fall the brigade group spends three weeks in Soltau in Northern Germany for unit and formation tactical exercises. Unlike most training areas, Soltau is lived in, in that there are towns and villages, farms and small holdings, where the inhabitants go about their normal business, in spite of the mock, but nonetheless realistic, war that rages around them. Although no live rounds are fired, it proves to be an interesting concentration because all ranks have the opportunity to see other units carrying out their battle procedures and drills as part of a brigade team under reasonably realistic circumstances.

The highlight of the training year in Germany is the NATO exercise held each fall and lasting for approximately five days. Last year 4th Canadian Infantry Brigade Group was pitted against a British brigade having a Bundeswehr Panzer battalion under command. We don't know who won, but know that we did not lose.

The year's training was not concluded until the Roberts Trophy Competition could be

decided. Due to the heavy commitment on the Munster ranges, this could not be done until the middle of January 1965. The competition was split into two phases: first the CO and his staff assessed the efficiency of a practice *alert move* from the camp area; secondly the proficiency of each gun battery was assessed throughout a one week practice camp. D Battery managed to hold onto the trophy by a thin margin.

Our training during 1965 followed a very similar pattern to the previous year. With the introduction of APCs however, it was not possible to take part in a NATO autumn exercise as all units were busy training drivers and crew commanders during that period. The year has, however, been a busy one. As the CRA summed it up after the divisional artillery practice camp, *Well done you.*

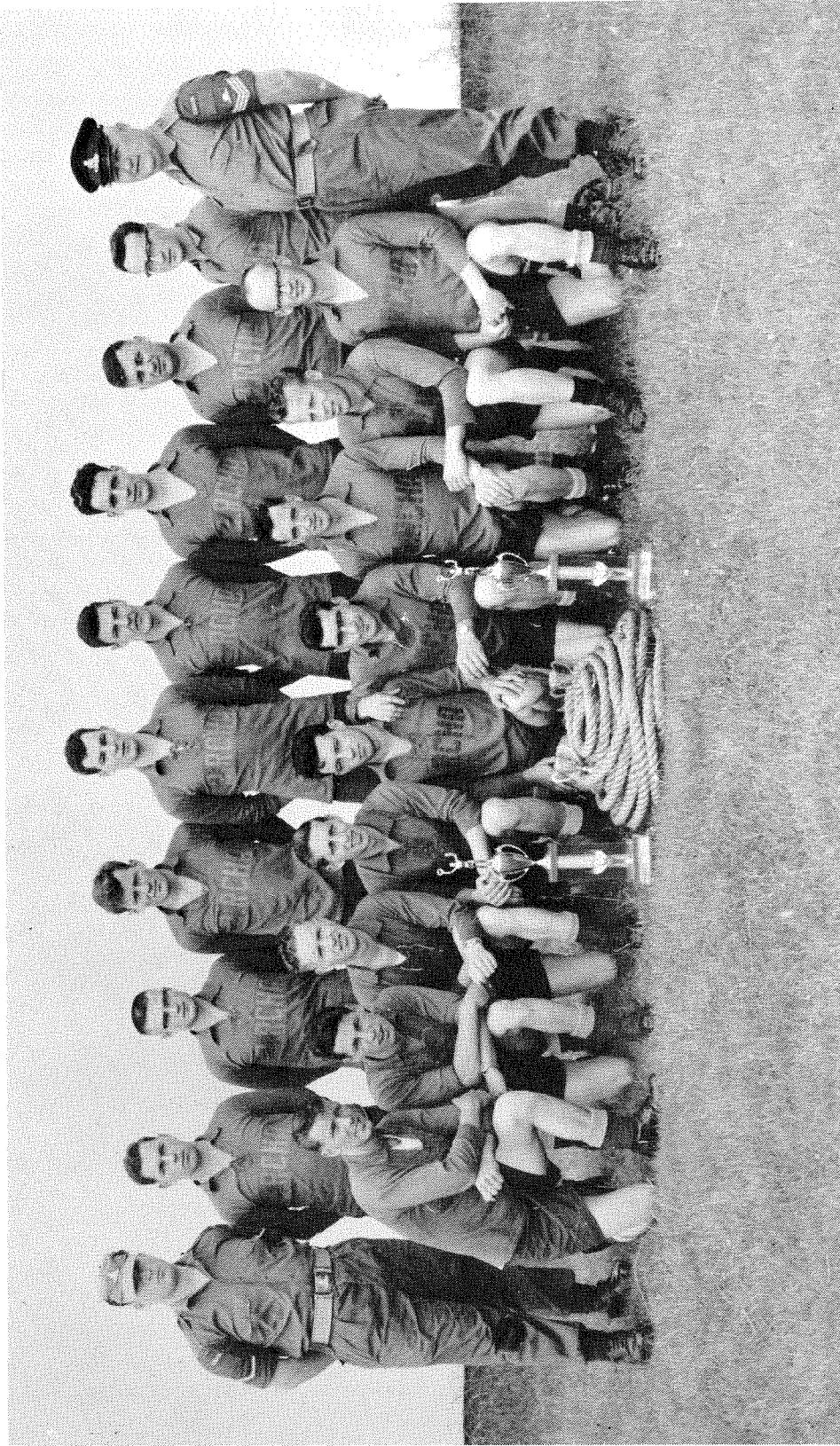
There have been many comings and goings during 1965. In February, 2 RCHA said farewell to Lt Col JP Beer, CO for a little over four years, who left to attend a course at the NATO Defence College in Paris. The new CO, Lt Col WE Sills arrived following a course at the same institution. Unfortunately, the two COs had only a few hours together as apparently the interval between courses

in Paris is a matter of only a very few days. This precluded the holding of any parades or functions of an *ave atque vale* nature which was disappointing.

To mention just a few of the many other changes, the job of second-in-command changed hands – although it was kept within the family – when Major JD Crowe left for England and 1 SSM Battery gave up his brother Major DB Crowe as a replacement. The latter has since departed to command 1 RCHA. D Battery then lost Major JB Mackay who took over the 2 IC desk, D Battery now being commanded by Major JA Cotter from Headquarters, 4th Canadian Infantry Brigade Group. Captain JK Devlin was promoted to take command of E Battery on the departure of Major RAD Stokes for RCSA in Canada. The position of Adjutant has changed hands many times with Captain WF Dorey, Captain JK Devlin, Captain AD McMillan and Captain TJ Walsh filling the slot in that order. Captain AD McMillan is now the RCPO. The position of RQM has been turned over to Captain WF Clarke by Captain FH Tudor who left us in July to attend the Staff College. Probably one of the biggest losses to the regiment as a whole and to D Battery in particular, was the posting of WOII “Big Sam” Witt to Regina as a WO1, a greatly merited promotion. *(concluded on page 100)*



Lt Col WE Sills, CO of 2 RCHA, discusses APC communications with Lt Col W Simcock, CIG RCSA



4 CIBG Tug-of-War Champions – Light and Heavy

1965

*Left to Right – L Bdr Ferguson, Gnr Leblanc LH, Gnr Staab, Sig Gebhard, Gnr Walker, L Bdr Chaisson, Gnr Vaillancourt, Sgt Beaupre, Sig Bedard, Sgt Demond
Kneeling – Gnr Skinner, L Bdr Stebner, L Bdr Marsh, Gnr Denief, Gnr Collette, Bdr Picinni, Gnr Campbell, L Bdr MacLean, L Bdr Morrison*

2 RCHA SPORTS

The 1964-65 sports year was a very successful one for 2 RCHA with the regiment winning five 4 CIBG Championships, two Divisional Championships and being BAOR runner up once.

Our two tug-of-war teams, under Sgt Demond JA, provided the highlight of the sports year for the regiment. Both the light team (88 stone) and the heavy team (100 stone) went through the 4 CIBG Championships in fine style with 1 PPCLI being the only opposition to pull the white tape over the mark — and that feat was allowed to happen only once. Both teams were successful over the 25 Corps Engineers for the 2 Division Championships, but it was after this that the competition became very stiff. In the BAOR semi-finals the heavy team was defeated by the 21st Royal Signals Regiment although our light team took the measure of the 21st's light team. In the BAOR finals, the Somerset and Cornwall Light Infantry brought the tug-of-war season for the regiment to a close by defeating the light team before going on to win the British Army Championships.

Lt HG MacDonald, as playing coach, brought the basketball team out of a bad slump and defeated 1 PPCLI in the semi-finals, then the FGH in the 4 CIBG finals, to gain the right to represent the brigade in the 2nd Division playoffs. The team finished the season as the 2nd Division runners-up, being eliminated by the British Army Champions, 25 Corps Engineers.

The fourth 4 CIBG Championship was won by the volleyball team. Coached by Ssgt Morrison NJ and captained by Capt EJ Adams, the team played a near perfect season and were crowned after defeating 1 PPCLI three games to one in the final play-offs.

The most recent acquisition in the trophy cabinet belongs to the fastball team who, under WO2 Larkin DM and Sgt Spencer RN, played good ball during the regular schedule and even more exciting ball during the play-offs to eliminate 1 PPCLI and FGH in that order to be proclaimed the 4 CIBG Champions.

Dominion Day was celebrated in part by holding a Brigade track and field meet at the Menden Stadium. The 2 RCHA supporters were given lots to shout about as the team threatened all day to achieve the upset of the year, for it was not until the last few events were underway that it was evident that the regiment would not pull another trophy off an infantry shelf. The final standings were 1 PPCLI 173½, 1 RCR 156½ and 2 RCHA 141.

The soccer team had its ups and downs during the season, but finished in fine style ending up in the Montreal Cup finals against 1 PPCLI who kept the silverware with another of their excellent performances.

The hockey team, like the soccer team, had its ups and downs and finished the regular season down in the cellar. Their finish was strong however, and they did provide yet another trophy for the regiment when they won the Sauerland Cup in a post season competition. The cup was donated by Iserlohn Breweries and was competed for by four surprisingly strong German teams and four Canadian Army teams from the Brigade. The presentation took place at the brewery with all members of the team present.

PLASTIC GUN BARRELS

A lightweight glass fiber reinforced plastic gun barrel for recoilless rifles is being tested at Watervliet Arsenal, New York. Life expectancy of the test barrel is less than that of metal barrels but there are offsetting advantages. For instance, it may become a *throw-away* weapon; also the turning and rifling of machining steel forgings is eliminated.

FORT PRINCE OF WALES OFFICERS' MESS

On our arrival at Fort Prince of Wales, while it was apparent that 3 RCHA had done much to improve the Mess, it was equally apparent that there was room for further improvement. A committee was therefore set up by the CO with the task of deciding on and planning the steps that had to be taken, bearing in mind the funds that might be available.

The planning was carried out mainly by Major DB Crowe the 2IC, Major RAD Stokes the PMC, and Captain AD McMillan. These officers leaned heavily on the talents of Captain RI Adams, who showed a great flair for design and the production of drawings, and on those of Herr HJ Burgard an architect and an associate member of the mess.

The plans were ambitious, considering that there was no question of hiring labour, and many members showed themselves to be possessed of previously unsuspected talents; particularly deserving of mention are Lieutenant MD Mahar and Lieutenant RG Gentles, RC Sigs. The former performed a radical operation on the electrical wiring while the latter did the same on the wiring of the sound system.

We were fortunate in receiving a grant from the Central Fund, and on the theory that a great many readers therefore contributed to what was done, and also that many readers are familiar with this mess or will call it *home* at some time during their service, a report on what we have accomplished is given briefly in the following paragraphs.

Painting. The inside of the Mess was painted throughout, using pleasant colours in contrast to the rather drab decor that had existed before. As all the ceilings slope in conformity with the very low pitched roof, contrasting paints were used to camouflage the fact and to achieve a more symmetrical appearance to the rooms. A part of the cost only was born by the Mess.

Entrance. Walls surmounted by planters and having light fixtures inset were built between the front door and the kerb. The front door itself was planked on the outside with cherrywood and on the inside with cedar, and was given wrought iron fittings. It is now probably one of the heaviest

front doors in northern Germany.

Foyer and Hallway. The wall opposite the the front door was sheathed with cedar planking, fender benches were built into the corners and new lampshades were bought for the wheel chandelier to refurbish the foyer. The long central corridor was shortened by the building of a partition between the Mess proper and the service area, and new lighting fixtures were installed.

Dining Room. A new carpet and refinished tables, both by courtesy of the RAOC, and new light fixtures completed this room.

Ante-room and Games Room. Fluorescent lighting was installed behind the window valances in the ante-room, the intensity of which can be controlled. Stone faced log boxes were built on either side of the fireplace installed by 3 RCHA. It should be said here that all masonry work, of which there was plenty, was done for us by men of 4 Fd Sqn RCE, for which we are most grateful. An archway was made between the ante-room and the games room to ease the traffic jams that always occurred during functions. When there is no requirement for free flow between the two rooms, the arch is plugged by a movable section which has on the ante-room side a magazine rack and trophy case and on the games room side is sheathed with the same wood as the rest of the games room walls. The RAOC produced another new carpet for the ante-room. The most radical changes took place in what was the games room. The floor was tiled, at public expense, a bar, radiator boxes and false beams were made, and the walls were sheathed with knotty pine. Finally a few suitable pictures were purchased to complete the room. The accompanying photographs give a good impression of how this and the ante-room now look.

Future Projects. Two projects are pending which we hope to complete before our departure. One is the construction of a porte-cochere to protect those arriving at the Mess between car and door, a short enough distance, but one in which one can get quite wet. The second is the making of a patio outside the bar to take advantage of the few fine days that are our lot in these parts.

While a considerable sum has been spent by the Mess of its own and your money, we are sure that those who come after us here will agree that it has been well spent.

If any battery officer cannot call every man of his battery by name, he should get busy at once!



New bar, panelling, and false beams in the Games Room of the 2 RCHA Officers' Mess

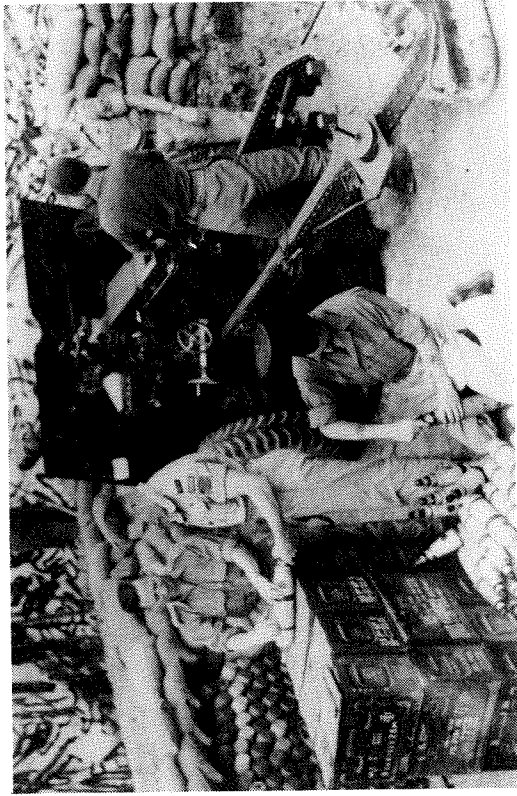
SITREP FROM 2 RCHA AIR OP TROOP

Weather is the overriding factor governing aviation in Germany. A general picture is the best that can be obtained from the forecasting services, and hills and industrial haze must be considered when planning a flight. When you realize that, on the average, the sun shines for less than three months of the year, you can understand why the pilot normally flies with one eye on the weather ahead and the other on suitable fields below.

Navigation in Germany is interesting because of the irregularity of section lines and the fact that all towns in a particular area seem to look alike. The wary pilot soon learns to track-crawl following prominent rivers, roads and railways.

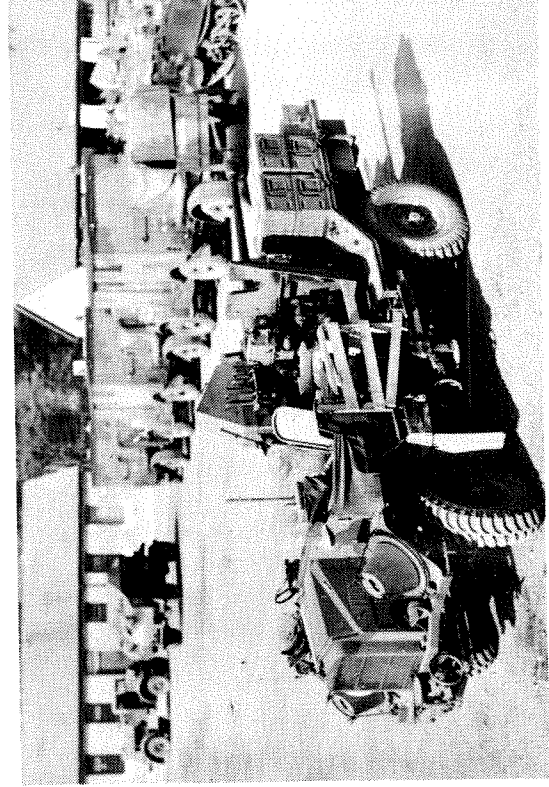
The most disturbing hazard is the low level jet traffic. An L19 pilot shows symptoms of going into a fit as his head swivels and eyes roll because a jet fighter went below him when he was at fifty feet. In reality he is looking for the *buddy* since the jets generally travel in pairs. For some unknown reason, one always goes by low on one side while the other passes high on the other. It might prove really interesting if they travelled in threes.

It is the consensus of all pilots that although a tour in Germany is interesting and provides a wealth of experience, it will be soothing to the nerves and conducive to long life to return to the calmer atmosphere of the Canadian airways.



1 2

P H O T O



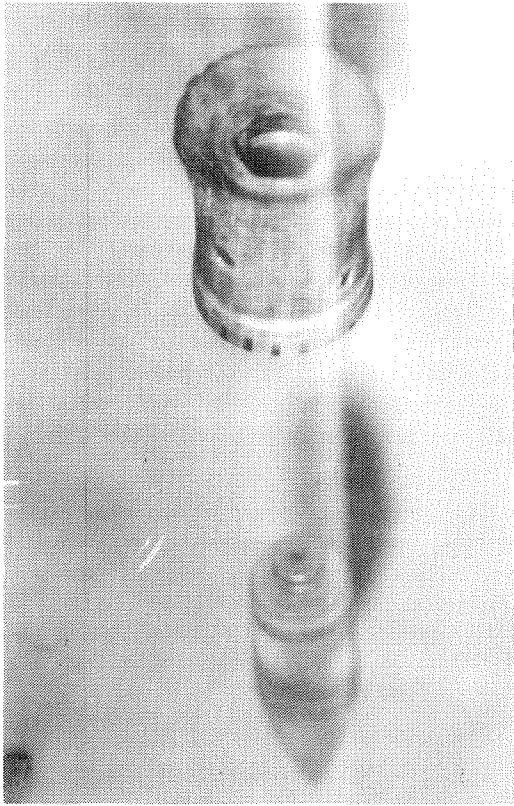
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Q U I Z

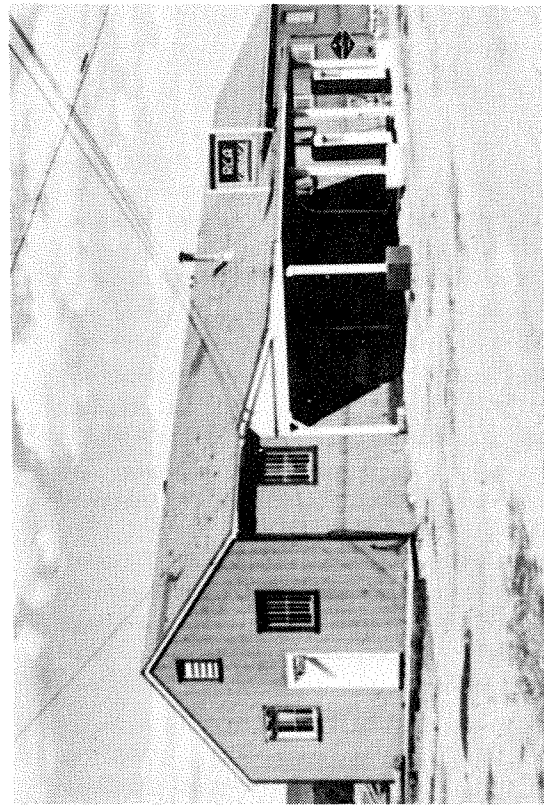


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Can you identify the subject of these pictures?



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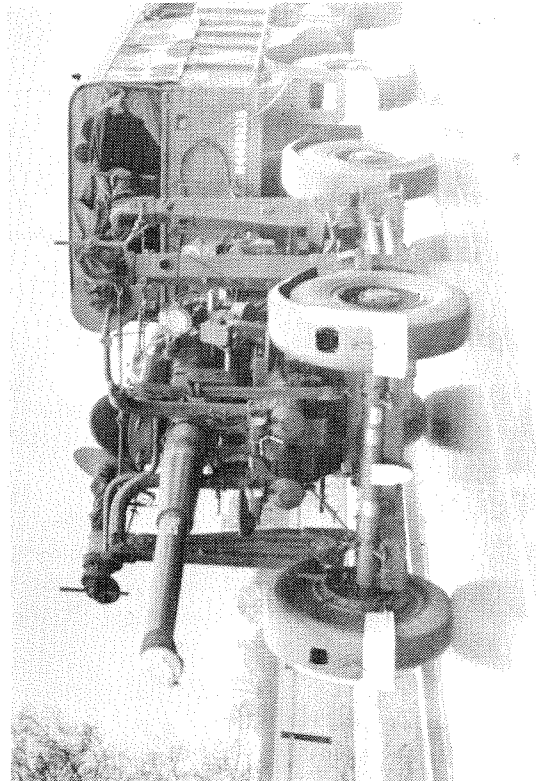
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P H O T O

Q U I Z

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7



BIRTHDAY PARTY in GERMANY

Capt RI Adams

The Commanding Officer was expecting a large number of special guests, senior officers and civilian officials, so the sentries on the stockade were in full dress, standing rigidly alert, pointedly ignoring the small band of Indians who were grouped about their camp fires near teepees pitched just outside the main gate. The cannon and limber was ready a few paces south of the sentry post, the horses held by stable hands. The Commanding Officer had ordered the gates swung open and a red carpet laid out in a gesture of welcome. The trumpeters adjusted their bearskins and checked their cords and spurs. A pair of lamps showed a few hundred yards away – the first guest, a full Colonel, a cue from the Reception Officer, trumpet up, 2-3-4 fan fare!! The acknowledging salute, greetings by the Orderly Officer, then through the gates following a guide in full dress, the Colonel and his Lady.

This was the scene at the start of the Artillery Ball held at Fort Prince of Wales Officers' Mess in conjunction with the fifteenth birthday celebrations of 2 RCHA.

This year the Artillery Ball was to be something a little different in that it was to have a theme; that chosen was Frontier Canada and it was the inspiration for the decoration plan.

Since the Mess was too small to hold the nearly 250 persons attending, a Shutzenfest tent was rented from 4 CIBG and erected on the parking lot just outside the front door. Once it was up, the results of several weeks planning began to show. By this time the answers to the invitations were

coming in and it was evident that maximum table and dancing space would be required.

To accommodate the RCOC Band and a suitable sized bar, three marquees were tacked on to the Schutzenfest tent. The exterior decorations consisted of an actual stockade wall, complete with sentry boxes, and main gate built of tree trunks. The *sentries* were male mannequins, hence the rigidity, in period dress borrowed for the occasion from the Sergeants' Mess. The Indians were of a local tribe, the *Hut* and *Shack Rat* breed, properly attired and huddled around an electric campfire. The ancient cannon, limber and real horses were rented locally. The well turned out trumpeters and guides were members of the 2 RCHA Trumpet Band.

The display of today's equipment, past which arriving guests and members drove, included 105mm and 155mm Howitzers, an Honest John rocket on a launcher, an M113 APC and an L19E observation aircraft. All of the equipment on display, and the front of the fort which those arriving approached on foot, was floodlit.

The floor of the tent was carpeted, with the exception of the dance area which had an extremely smooth surface of waxed beaver board. The walls were painted to appear as stone to about five feet from the floor and as logs above that. The windows gave onto scenes of prairie foothills, buffalo and Indians, all expertly drawn by Mrs Joyce Dorey. The bar was made of thirty foot planks supported by many beer casks. Lights were placed inside lanterns and tables were supplied with candles in rustic log holders in the *Frontier* theme.

The best comment on the success of the party is probably that few guests left early and a number had the dawn of a new day available to help see them safely, happily home.

REFURBISHING OF GOLD BRAID

From a recent RCOC news letter * * * * *

As a result of a test carried out by Lt Col B Lable on his mess dress collar and blue cap peak, tarnished gold braid can be satisfactorily refurbished to a *new look* appearance by the application of a plastic paint known as Testor's Pla No 44, Gold, available from Simpson-Sears, hobby shops, etc. This test showed no ill effects to the braid six months after the application of the paint.

To carry out this method of refurbishing, the paint must be worked well into the braid with a small, soft, short-haired brush, such as a child's water colour brush, care being taken by masking to avoid touching other than the braided portion of the collar or cap with the paint.



APCs of 2 RCHA rumble through a German Village



1 SS/H Bty sends a rocket down range at Bergen-Hohne Germany

ARTILLERY IN THE WILDERNESS AND ON THE STEPPES

Colonel I Gapon, USSR

(This article is taken from the USSR Defence Ministry
Red Army Journal "Military Herald" #9.)

A severely continental climate, droughts, sparse vegetation, shifting, heat-fractionated sands and dunes, all peculiarities of the wilderness-steppe terrain, exert an understandable influence on the combat activities of troops, including artillery. On this terrain may be found not infrequently, both strips of salt-marsh, (blindens) and rock slides, as well as waterless mountain ridges. Along the banks of rivers, level clayey areas are also to be found.

Areas of shifting sands and dunes, easily crossed by artillery towers during rainy periods, become difficult to traverse in summer, when the soil dries out. On the other hand, strips of salt-marsh and silt beds, traversable in hot weather, become impassable in rainy periods. In wilderness-steppe regions, the air temperature at various times of the year varies from -30°C to $+40^{\circ}\text{C}$, and diurnal variations of up to 40°C are possible. This has well known adverse effects on meteorological factors in artillery combat activities and makes it necessary for senior officers of the batteries to supervise very closely the measurement of charge temperature. To prevent gross errors, all charges must be stored under identical conditions, in covered bays or under canvas.

Winds are frequent in the wilderness. They usually blow from the same direction and at times reach hurricane proportions. In summer, winds raise clouds of dust, reducing visibility. Dust clogs all the mechanisms of guns, towers and instruments, accelerating their wear. In extreme cases, it is impossible, because of dust, to operate the working parts of the guns and other equipment. In order to reduce the wear on instruments and mechanisms, these must be carefully covered with tenting and specialized covers of any available material.

Dust storms prevent engineering work on the defenses of artillery gun positions. Uncovered engineering works are as a rule filled with sand together with the equipment in them.

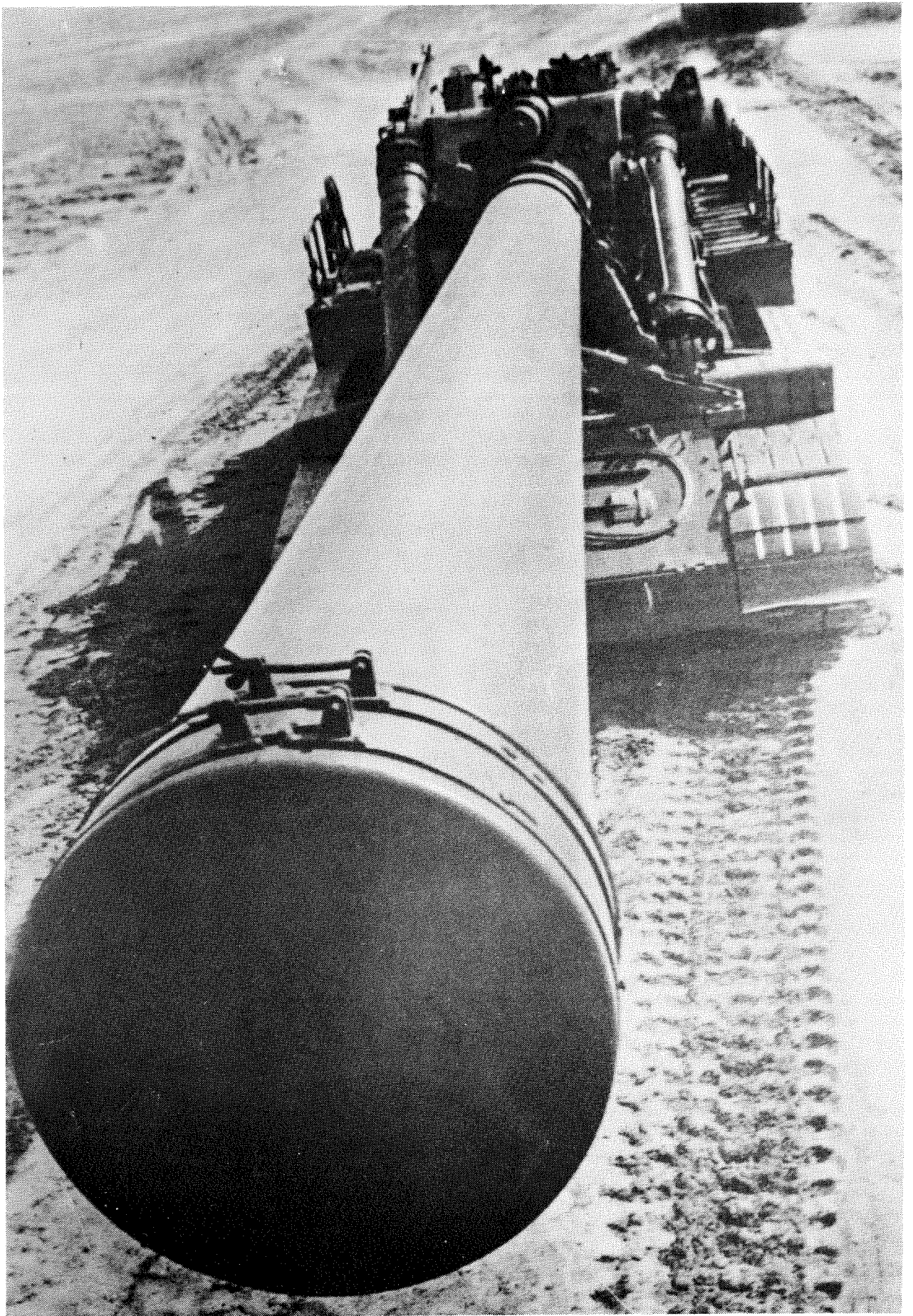
Artillery combat activity is severely limited during the spring and fall by torrential rains. The soil is unable to soak up the abundant water, and it rushes in roaring streams into the valleys, filling basins, near dry and waterless riverbeds.

In order to show how complicated are the activities of an artillery sub-unit in a period of rain, we shall look in on an occupation carried out in an area of irrigation farming.

At the beginning of the occupation, the weather favoured the march, the battery moved out on time and occupied a gun position in the designated area. Towards noon, a wet snow fell. The ground became so soggy that not a single artillery tower was able to move from its parking place without help. The situation with the supply transport trucks was particularly difficult, as these have only one drive axle. The irrigation ditches, in the meantime, had been filled by rushing streams of water and presented serious obstacles not only to the wheeled vehicles, but to tracked towers as well. On sandy soils (light soils), the vehicles could not stand in one spot for more than a few minutes, so quickly did their wheels sink. Tower drivers had to continually manoeuvre their vehicles. In spite of all this endeavour, two towers got stuck and had to be pulled out with the aid of tanks.

On the way back, the battery had to cross many normally dry riverbeds, and now some could be crossed only with the help of engineer resources.

Among other peculiarities which have a pronounced influence on artillery combat activities in wilderness-steppe terrain, mention must be made of the complexity of camouflage, orientation, selection and survey fixation of artillery gun positions. In sunny weather mirages and haze spring up, seriously hampering reconnaissance and observation of fire. Reconnaissance officers must have good drills for accurate determination of distances under these conditions. Flatness of terrain and lack of natural cover complicate the camouflage of fire positions, towers,



and observation posts. Dust raised by artillery fire and during moves readily betrays fire positions and moves. In calm weather, clouds of dust hang over fire positions and roads for a long time and draw the attention of air and ground recce.

The monotony of the landscape makes orientation difficult, particularly at night. The thing is that survey map sheets of wilderness areas, apart from a few contours, show little or no detail, there just isn't anything. In order to prevent gross errors in orientation, these alterations must be continually noted.

Those who blindly adhere to the map may err in map spotting themselves by several hundred metres and perhaps a kilometre. If the battery or troop commander does not have firm drills for orientation in wilderness-steppe terrain, he will not be able to find the specified point, not only by night, but by day as well, and will occupy a gun position or observation post in the wrong area.

Experience dictates that each artillery sub-unit should have its own specialized guides and direction finding equipment. Together with this, it is necessary to improve the survey training of officers. Every field deployment, every occupation on unfamiliar terrain must be utilized for the perfection, by officers and NCOs, of firm drills for orientation on various types of terrain. Firm drills must be learned by the gunners as well.

If, for example, the battalion or battery is required to carry out a night march in the wilderness, the commander is required, firstly, to become familiar with the march route. When the exact route is not specified in the operation order, then it must be marked. As a rule, the march route is laid through the most readily identifiable terrain and along characteristically local features and interspersed check points. Frequently, the computations are given for a specified length of the march route. Specifying distances between check points on the map, the officer must bear in mind that he is measuring surveyed, not actual distances. Many dunes have a height of up to 50 metres, and if this is not kept in mind, then errors will be unavoidable. When, however, the distance covered is taken off the speedometer, then allowance must be made for spinning of wheels in areas of loose sand.

Before setting off on the march, the sub-unit commander (or column senior) writes down the speedometer reading in his vehicle and systematically notes it at each check point. At any rate, frequent stops to determine exact position on the ground are not always a good idea, they lower the march tempo.

For automatic orientation en route, the battalion (or battery) ought to have at least one vehicle equipped with a gyrocompass. It is possible

to correctly determine direction in the wilderness at night by means of the stars, bearing in mind that, with the exception of Polaris, they change their position at a rate of 5° in 20 minutes (15° per hour).

It is possible to obtain orientation by characteristic details for the given terrain. By way of example: the doors of mosques always face the north, whereas doors of yourts (nomad tents) face the south; the form of the dunes depends on the direction of the prevailing winds, etc.

The tasks of orientation and survey fixation of the gun position during deployment are complicated. If time allows, it is recommended that the routes in be marked with whatever signing materials may be at hand, and, on occasion, with illuminated markers. For purposes of orientation and survey of gun positions and observation posts, use may be made of radar, radio-beacons, etc. However, survey of the gun position will be in most cases carried out by the battery (battalion) commander, using his own means. What recommendations can be made?

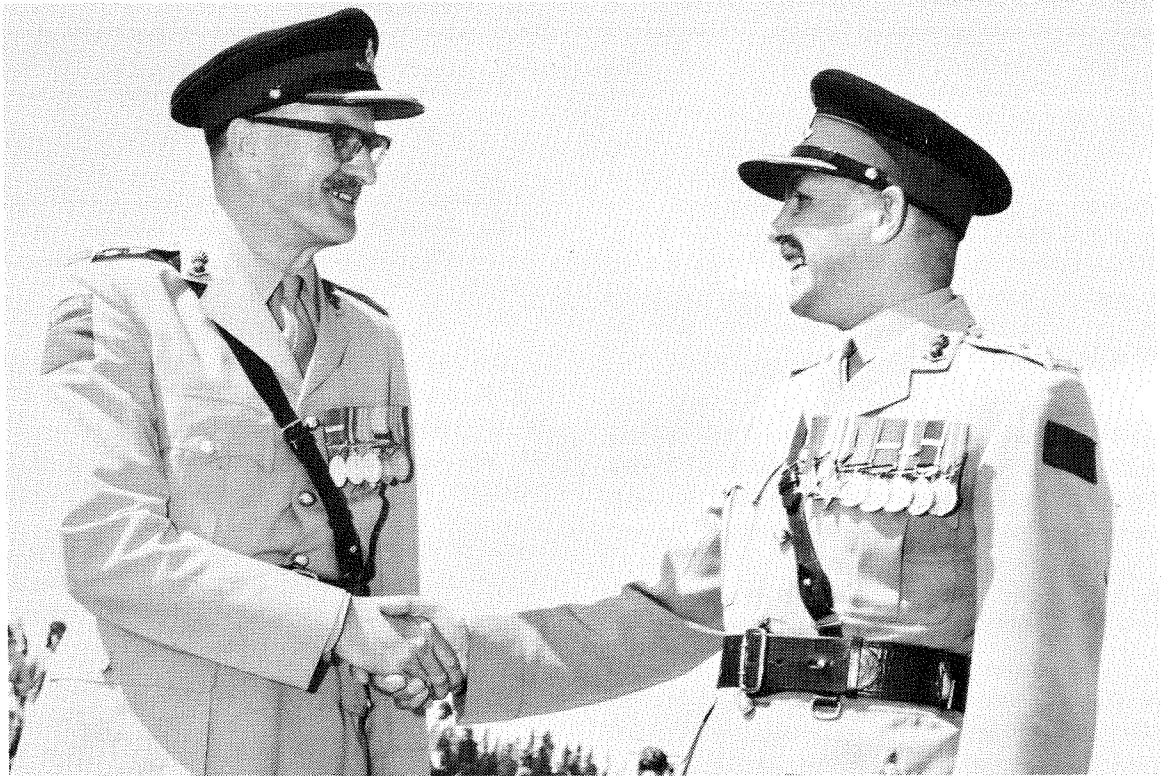
Verify artillery survey; for example, at night by means of automatic weapons firing tracer vertically from several trig points. There is nothing unusual in this task. Orienting angles are observed at each gun position and observation point to every vertical tracer. Then, by means of resection, the coordinates of each position are determined, the coordinates of each trig point (tracer firing point) having been supplied to the battery (battalion) commanders earlier.

Experience has shown that survey of gun positions by such method is reliable, simple, does not require the allotment of supporting troops, and ensures that the artillery is ready to fire on time. Use of a survey coordinate computer, by driving it around to each position in the wilderness at night, is practically impossible.

Wider use will have to be made of artillery recce parties which carry out preliminary survey of gun positions from local detail (map-spotting) and meet the arriving sub-units.

One of the commander's most responsible tasks is the determination of the position, on the terrain, of targets, and obtaining their coordinates. In the desert, distances usually appear deceptively shorter, (up to 40% - 50%), and the absence of reference points makes target identification difficult. It follows that recce and intersection of targets must be done by technical means.

The gunner, officer who has a good knowledge of the peculiarities of wilderness-steppe terrain can more widely display his skill and initiative in developing the most rational methods of employment of artillery sub-units and the direction of their fire under such complex conditions.



Lt Col MLA Chabot (right) hands over to Lt Col DB Crowe

1 RCHA CHANGE OF COMMAND

A regimental parade on 30 July 1965 marked the end of Lt Col MLA Chabot's tenure of office as Commanding Officer 1 RCHA, and the arrival of his successor, Lt Col DB Crowe.

Under command of Lt Col Chabot, the regiment marched past the Reviewing Officer, Brig NG Wilson-Smith. The outgoing CO then made his farewell address in which he reviewed the unit's activities during the time that he had been CO. The regiment, he noted, had participated in three Tri-Service exercises; Exercises Boat Cloak, Yeoman and Cormorant. He noted that integration had begun to affect the regiment, and that since

so much change was about to take place, the life of a Gunner would become even more interesting.

The RCA Band from Halifax played *Auld Lang Syne* and the new Commanding Officer took over the parade and marched the regiment past the outgoing CO. Following the parade, a reception was held in 1 RCHA Officers' Mess. Lt Col Chabot's new appointment is with the Directing Staff, CASC, Kingston, Ont.

Lt Col Crowe came to the regiment from the post of Second-in-Command of 2 RCHA. He enlisted in 1943 in the RCA. The majority of his wartime service was spent in Canada except for a short period of time in Newfoundland with the Edmonton Fusiliers as a platoon commander. He rejoined the RCA in 1945 and served with 1 RCHA in Petawawa and Shilo until 1949. In 1950 he attended the Long Locating Course in Larkhill and subsequently held an appointment as instructor in RCSA from 1951-52.

He served in Korea with 1 RCHA in 1952-53. After attending the Arty Staff Course in 1953-54 he left for the Canadian Army Staff College in 1956. In 1957, he served as Staff Captain for 2 CIBG/4 CIBG in Europe. He then commanded V Bty 4 RCHA, and was appointed DAA&QMG HQ 2 CIBG in Petawawa in 1960. His appointment in 1962 as CO of 1 SSM Bty in Europe was followed by his tour of duty as 2IC of 2 RCHA.

CULEBRA STORY

Capt WF Wright

Eight suntanned members of the 1st Regiment Royal Canadian Horse Artillery, returning by RCAF transport from the Caribbean, received a chilly welcome when they debarked into the deep snow and freezing wind at Summerside, Prince Edward Island last February.

For a two week period, the artillerymen had been working in balmy 80 to 90 degree temperatures at the Atlantic Fleet Weapons Range situated on the Island of Culebra, forty miles west of Puerto Rico.

During their tour of duty, the group worked as two naval liaison bombardment teams with various elements of the NATO fleets participating in live firing exercises. The role of these teams was to direct naval gunfire against shore based targets that could not be observed from the ships.

Except for the small naval station, Culebra Island has little to offer as a tourist attraction. The island is approximately ten miles long by three miles at the widest point. One end of the island is used as a target area, while the remainder is populated by some 500 people of Spanish extraction who eke out a meager existence by fishing or raising cattle.

As the origin of the tiny island is volcanic, water and vegetation are sparse. Until just recently, drinking water was obtained by catching rain water in large cement cisterns built into the hillsides. A project to alleviate this water shortage is now underway with the drilling of two water wells.

No poisonous snakes are reported to live on the island. Scorpions and Tarantula spiders are said to exist, however none were encountered. The most outstanding creatures on the island are the lizards. The rocky hillsides are literally infested with all sizes, shapes, colours, and varieties. The only other wild life on this tiny sun drenched island are the herds of wild goats. These animals are not indigenous to the area, being the descendants of domestic stock brought to the island and allowed to run free by early Spanish settlers.

The experience gained by Canadians taking part in the various live firing ship to shore bombardment exercises was invaluable, as Canadian OP officers rarely have the opportunity to direct the fire of ships.

There was no lack of opportunity to shoot. Ships were found to be waiting in line to fire. As quickly as one ship completed the exercise, another would be ready to come on station.

Fire Orders in gunnery are standard NATO procedures adopted by all ships in the NATO fleets. With this method, a trained observer can direct ship to shore bombardment regardless of the firing ship's nationality. Each ship taking part in live firing at the Atlantic Fleet Weapons Range is required to run through a carefully timed exercise, on the conclusion of which the ship is graded by the officer in charge of the weapons range.

SURVIVAL

Capt WF Wright

The word *Survival* has taken on a special meaning for members of 1 RCHA Air OP Troop, Camp Gagetown, who have completed the RCAF survival training school in Alberta.

Survival training teaches the basic ingredients of staying alive when marooned in the wilderness. Fundamentally, this requires a little knowledge and a lot of common sense.

Among the many things candidates learn while living out of doors in minus 30 degree temperatures is how to light fires without matches and how to make and use various snares and traps to catch rabbits, birds, and other animals for food. They have to locate and recognize various edible plants such as Labrador tea, the kinikinik berry and bear root. Students found that the kinikinik berry tastes like crabapples; that spruce tips (from young trees only) are a good source of vitamin C; and that bear root tastes similar to cocoanut.

Survival can be simple or next to impossible, depending on the attitude of the individual. Calmness and acceptance of conditions and hazards make the task of staying alive relatively easy. Panic, on the other hand, is often a killer to the uninitiated.

Students found that parachute silk is one of the most valuable items a downed pilot would have available for survival in the wilderness. It can be used in the erection of a shelter, or utilized as a sleeping bag. It can be made into footwear or clothing if the situation demands it. The parachute cord of tough nylon is invaluable for construction work or the making of fish nets, snares and traps.

With this type of training, a man can stay alive in almost any environment, and be reasonably comfortable until rescued.

FIRES AND POTATOES

Lt MA Kryzanowski

There is nowhere the artillery won't go or can't go. There is nothing the artillery won't or can't do. This statement was made in Korea in 1951 by an American Major-General, and 1 RCHA lent support to the statement in Camp Gagetown, 1965. Preparatory to the usual summer concentration, the regiment moved into the heavily wooded training area early in June and began to make ready for a period of intensive training. During this period, the weather was extremely hot and dry, with no rainfall for weeks, when someone ominously remarked, *These forests are ready to explode.*

As if in reply to this remark, the Bathurst Pulp and Paper Company reported several fire outbreaks in the area half-way between Newcastle and Bathurst, New Brunswick. Help was requested from the Army, and on 3 July, 100 men from H and C Batteries were dispatched to the area to assist in fire fighting. An advance party, headed by Major PB Martin and Lt DB Bianco, surveyed the fire by helicopter, and selected an administrative area to be occupied by regimental personnel. The remainder of the fire fighters arrived with pumps and shovels, then, further supplied with civilian equipment, they immediately went to work containing or *ringing* the fire area. Working 14 hours a day, the fire fighters managed to contain the fire and box it in. 1 RCHA guarded two sides, and soldiers from the R22eR with civilian help guarded the other two.

On 17 July, the remainder of C Battery and part of B Battery left Camp Gagetown to relieve the now thoroughly weary fire fighters. This second group did some major fire fighting, but were mostly concerned with patrolling burnt-out areas and putting out small fires.

The Forest Rangers who supervised the fire fighting had nothing but compliments for the organization, discipline, self-sufficiency, willingness, and co-operation of the soldiers. The civilian personnel who helped fight the fire were impressed with the field shower and the kitchen facilities provided by the Service Battalion increment which which was attached to 1 RCHA

Late in July, after all regimental personnel had returned to Camp Gagetown and were cleaning up equipment to go on leave, fresh fires broke out on the Camp Ranges causing all leave to be postponed for a few days. Again in early September, minor fires on the ranges had to be extinguished.

After fall practice camp, the regiment began settling into winter routine, but New Brunswick, which seemed to be having more than its fair share of crises, was hit with bad weather which delayed the harvest of the potato crop. Eventually the weather broke and Indian Summer made its appearance. Now, for a variety of reasons, the province was faced with a shortage of labor for potato-picking, and once again the Army was asked to lend a hand. As the result of an appeal from Provincial Agriculture Minister Adrian Levesque, about 100 soldiers from the regiment were granted two weeks special leave to help in the potato-harvest.

Our training programme is flexible and we now scan the horizon for locusts, snow, or come what may.

RANKS

In 1660, when the British Army was re-organized on the restoration of Charles II, gentlemen were commissioned by the King to raise regiments and were appointed Colonel of the Regiments and became virtually the owner. The Colonel was allowed to sell commissions in his regiment. He had his right hand man, or his Lieutenant, who was known as Lieutenant-Colonel (The Colonel's Lieutenant). The Lieutenant-Colonel was a sort of general manager who ran the regiment.

There was the Sergeant-Major who was the second-in-command, or Staff Officer, of the regiment. Then there were Captains of companies or squadrons with their Lieutenants, and then the Junior Officers who were known as Ensigns in the Infantry, or Cornets in the Cavalry. Both were subsequently known as Sub-Lieutenants, and now 2nd Lieutenants. Non-Commissioned officers were limited to Sergeants, with later on Corporals and Lance-Corporals.

When an Army went to war the King appointed a *Captain-General* who was aided by his Lieutenant, or *Lieutenant-General*, and his *Sergeant-Major General*. As time went on it was decided to make the senior NCO a Sergeant-Major. Consequently the *Sergeant* was dropped from the title of Second-in-Command of a regiment and from the General officer.

Thus the development of the Army accounts for the present apparent anomaly of a Major-General being Junior to a Lieutenant-General when, in the regiment, a Lieutenant is Junior to the Major. The word Captain was also dropped from the title of Captain-General in the Army.

U BATTERY DISBANDS

Capt WF Wright

On Thursday morning 27 May 1965, Lt Col MLA Chabot, Commanding Officer 1 RCHA, inspected U Battery 1 RCHA for the last time. Following the inspection, U Battery slow marched past the Regiment to the tune of "Auld Lang Syne" played by the RCA Band from Halifax. The Regiment presented arms as U Battery marched off the parade square.

The battery had been formed in May '58 when Capt JS Soutter and a nucleus of 18 locators were posted from Shilo to 3RCHA in Camp Gagetown upon disbandment of 1 Locating Battery in Shilo. The first battery commander of U Battery was Major (later Lt Col) W Simcock who took up command in July '58 and commanded for two years. WO 2

Sonnenberg was the first Battery Sergeant-Major.

U Battery remained with 3 RCHA until Nov '60 when that Regiment departed for duty in Germany. As higher policy did not provide for inclusion of a locating battery with the Regiment in Germany, U Battery remained in Camp Gagetown where it joined forces with 1 RCHA which moved into that camp upon departure of 3 RCHA.

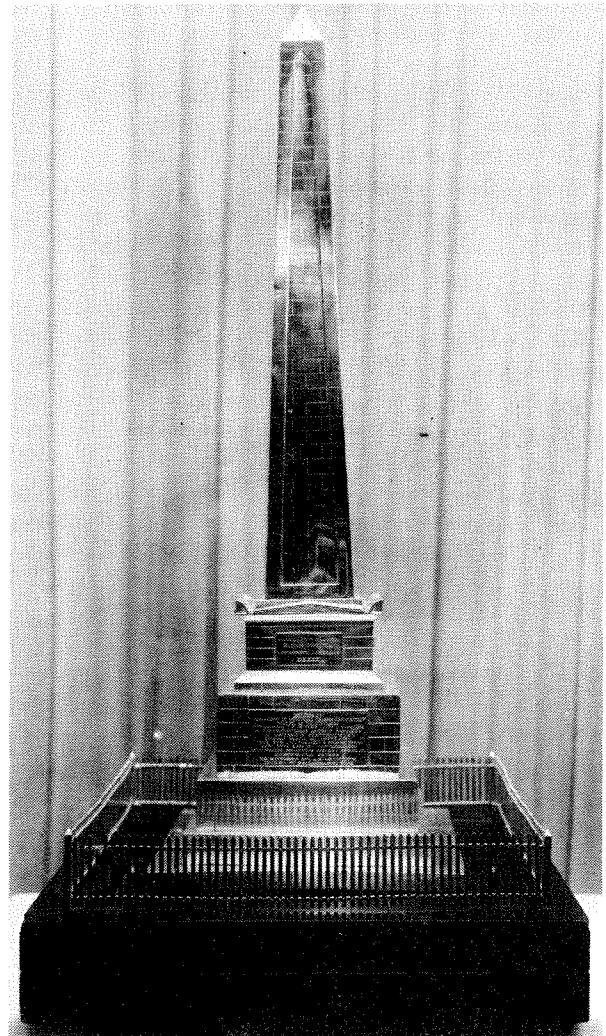
On 1 Feb 65, when the Close Support Regiment RCA establishment was taken into effect, U Battery was officially disbanded, and a number of the highly trained locating battery personnel were posted to Winnipeg to form the nucleus of a new larger divisional locating battery.

The last officer to command the battery was Major PB Martin, and the roster books were closed and put away for the last time by Battery Sergeant-Major Lentle SWJ.

SYMBOL OF UNITY

One of the more unusual and interesting items in 1 RCHA Officers' Mess is a large silver replica of the monument which stands on the Plains of Abraham in honour of Generals Wolfe and Montcalm. The tall eye-catching silver spire, which was presented to A Battery in 1885, then stationed in Quebec City, by "its friends in Quebec City", invariably draws scrutiny and comment from visitors to the Mess.

The gesture of its presentation and its historical significance are at once clear to the reflective viewer; the monument symbolizes the spirit of co-operation and reconciliation which has enabled the two founding races – formerly such bitter enemies, – to join together and build a new nation stretching from sea to sea. In immortalizing the two generals who fell in the fifteen minute exchange which decided the fate of New France, the monument on the Plains, and its miniature in the Officers' Mess of 1 RCHA, give notice that their common sacrifice should not have been fruitless.



THE RCA OFFICERS' MESS CAMP SHILO

Officers of the Regiment will be interested in alterations that have recently been made to the ante-room and the hallway of the Home Mess. The work was carried out by a civilian contractor at a cost of slightly less than \$12,000.00, a portion of which was borne by the Officers' Regimental Fund and the remainder by the Mess members.

A *Baronial Hall* motif has been followed in the alterations to the ante-room. The ceiling has been transformed by the addition of floating panels which are suspended horizontally between the well-known gable type partitions. These panels greatly improve both the appearance and the acoustic qualities. The lower portions of the ceiling partitions have been sheathed in grained wood giving the appearance of massive solid beams extending across the width of the ante-room ceiling. A new lighting system is provided by six multi-light chandeliers hung from the ceiling and by small simulated copper oil lamps attached to the walls. The walls have been partially panelled in heavily grained dark wood, with the areas between panels repainted a light beige. A heavy wooden beam mantel piece has been added to the Tyndal stone fireplace, and the fender seat around the fireplace has been enlarged and recovered with red leatherette. The enlargement of the original fireplace seat, which was presented by Colonel DK Todd in 1948, required the acquisition of additional 25 pounder cartridge cases to retain the original pattern. Happily such cartridge cases were still to be had in Australia, and the Royal Australian Artillery was contacted through their exchange instructor at RCSA, Captain P Gowans, RAA. The Australian

Gunners very kindly presented the Mess with the necessary number of cases, appropriately inscribed, and Captain (now Major) EK Cowan, RCA, who was serving at the Australian Artillery School at the time, made arrangements for delivery to Shilo. Large maroon rugs flecked with black have been purchased to cover a large portion of the ante-room floor.

In the hallway between the ante-room and the dining room, the wall which faces the main entrance to the Mess has been panelled with *Etchwood*, and the opposite wall and the ceiling have been painted light beige. Canadian military prints have been hung on the walls of the hallway, and the floor has been covered with a maroon rug of the same pattern as those in the ante-room.

The Mess is decorated with good military prints and with a number of crests mounted on hardwood shields which have been presented by various officers and units who have visited the School over the years. There are many fine trophies and handsome pieces on display, among the more notable being the massive silver Edward VII trophy, won by the Canadian Artillery Coast Defence from the Royal Artillery in 1907, the Canadian Artillery Association Challenge Cup, and the Prince of Wales Cup which was won by Canadian Gunners from the Volunteer Artillery of Great Britain in 1907. In addition, there are mementos donated by Gunner officers who have served in various parts of the world on various international assignments. There are spears from the Congo, a scimitar from Laos, a copper tray from Egypt and a plaque emblematic of the International Control Commission in Viet-Nam. The latest portrait oil to be added to the Mess is a painting of Lieutenant Colonel Del T Irwin, an early Colonel Commandant, and this has been added to the collection of paintings of our Colonel Commandants in the dining room.

Officers returning to Shilo are invariably pleasantly surprised with the fine finish which the Home Mess is gradually but assuredly acquiring.

LASER RANGEFINDER CALLED BREAKTHROUGH

The XM-23 laser rangefinder which the US Army is buying represents "a major technical breakthrough in the state of the art for rangefinding instruments and will be the first laser device to be produced in quantity", reports Maj Gen FJ Chesarek, Assistant Deputy Chief of Staff for Logistics of the US Army.

For use by artillery forward observers, the rangefinder employs a ruby laser to emit a high power light pulse toward a target. Then the rangefinder measures the time it takes for the pulse to bounce back.

- From (US) Army Times

Two Views of the Ante-Room



**COLONEL GEOFFREY BROOKS MEMORIAL
PRIZE ESSAY COMPETITION**

1966

RULES OF THE COMPETITION

The name of the competition is "*The Colonel Geoffrey Brooks Memorial Prize Essay Competition*". Two prizes will be awarded; first \$100.00, second \$50.00. The right to compete is extended to:

Canadian Army Regular and Militia officers of the Royal Canadian Artillery.

Officer Cadets of the Tri-Service Colleges, The Officer Candidate Programme and the Canadian Officers' Training Corps who have completed their first phase of training and who have selected the Royal Canadian Artillery as their corps.

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

Authorship of entries will be strictly anonymous. Each competitor must adopt a motto or nom de plume, which will be quoted at the top of the entry. With the entry there will be enclosed a sealed envelope with the appropriate motto or nom de plume typewritten on the outside, and the service number, rank, name and address of the competitor inside.

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.

Entries are to be addressed to the Editor of the Canadian Gunner, Camp Shilo, Manitoba, and marked "*The Colonel Geoffrey Brooks Memorial Prize Essay Competition*" on the envelope. They must reach the office of the Canadian Gunner not later than 31 July 1966.

The Commandant, RCSA, Camp Shilo, Manitoba, will arrange for a committee to judge the entries. The decision of the Committee will be final.

Results will be made known in the next issue of the Canadian Gunner, and the winning essay (and in certain cases the runner-up) will be published in that issue.

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 of essays, any dealings therewith, the judging thereof, or the reports thereon.

The copyright of any essay which is published in the RCA Annual will belong to the RCA NPP.

The subject for 1966 will be:

Discuss present conventional artillery tactics, techniques and equipment from the point of view of characteristics which limit fire support capabilities, and suggest possible ways by which these limitations might be overcome.

HISTORY OF SHILO CAMP

Sgt Fannon CW

The acquisition of a training area, sufficient in extent to provide for artillery practice and for manoeuvres of all arms, in a central location in Military District No 10 was a burning question for a quarter of a century.

The continued influx of population into the west first directed the attention of the Militia Department in 1909 to the importance of securing areas in the prairie provinces as military reservations.

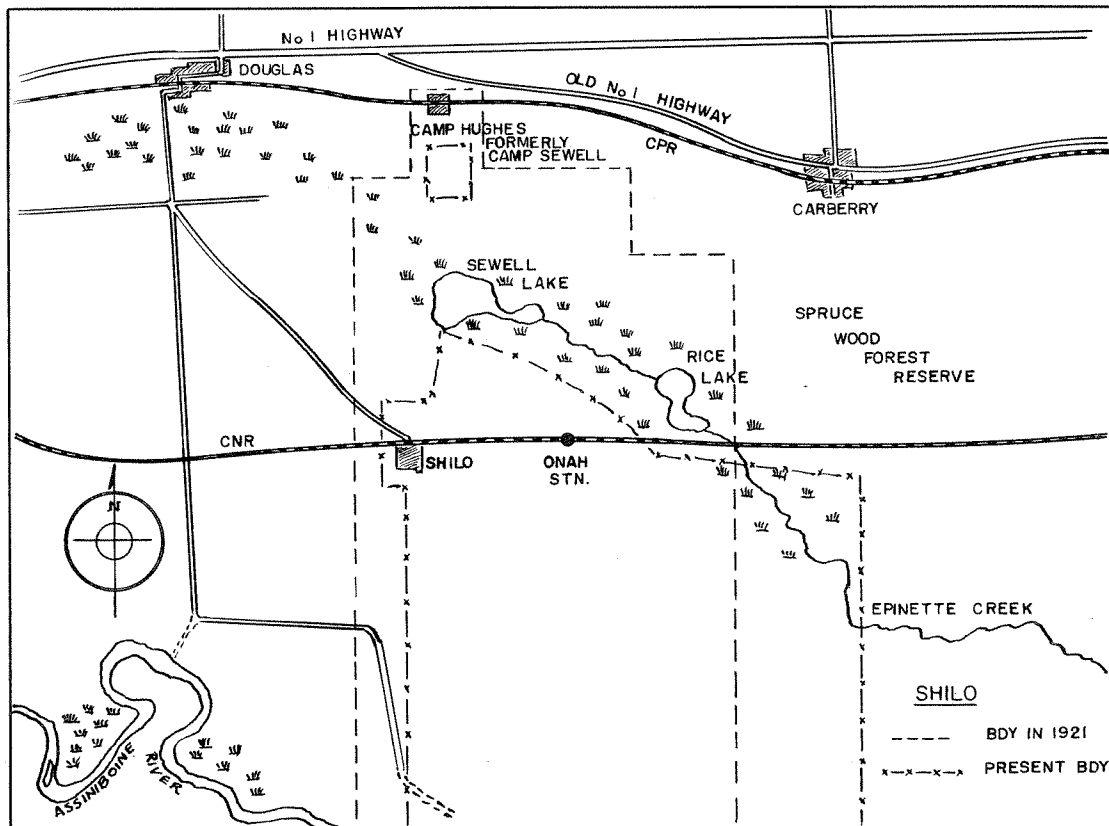
In the fall of that year, Colonel SB Steele (later Major General, CB, MVO) reported that the Dominion Government Spruce Wood Forest Reserve, south of Carberry, was very suitable for training ground purposes. In February 1910, he further reported that this property, some 10 miles square, was suitable in every way for the exercising of troops in field work, and that it was accessible by both the CP and CN railways; he also added that the Hudson's Bay Company owned a section of land immediately north of the Reserve and just south of Sewell station on the CPR, and had offered to permit the actual camp to be pitched on their property.

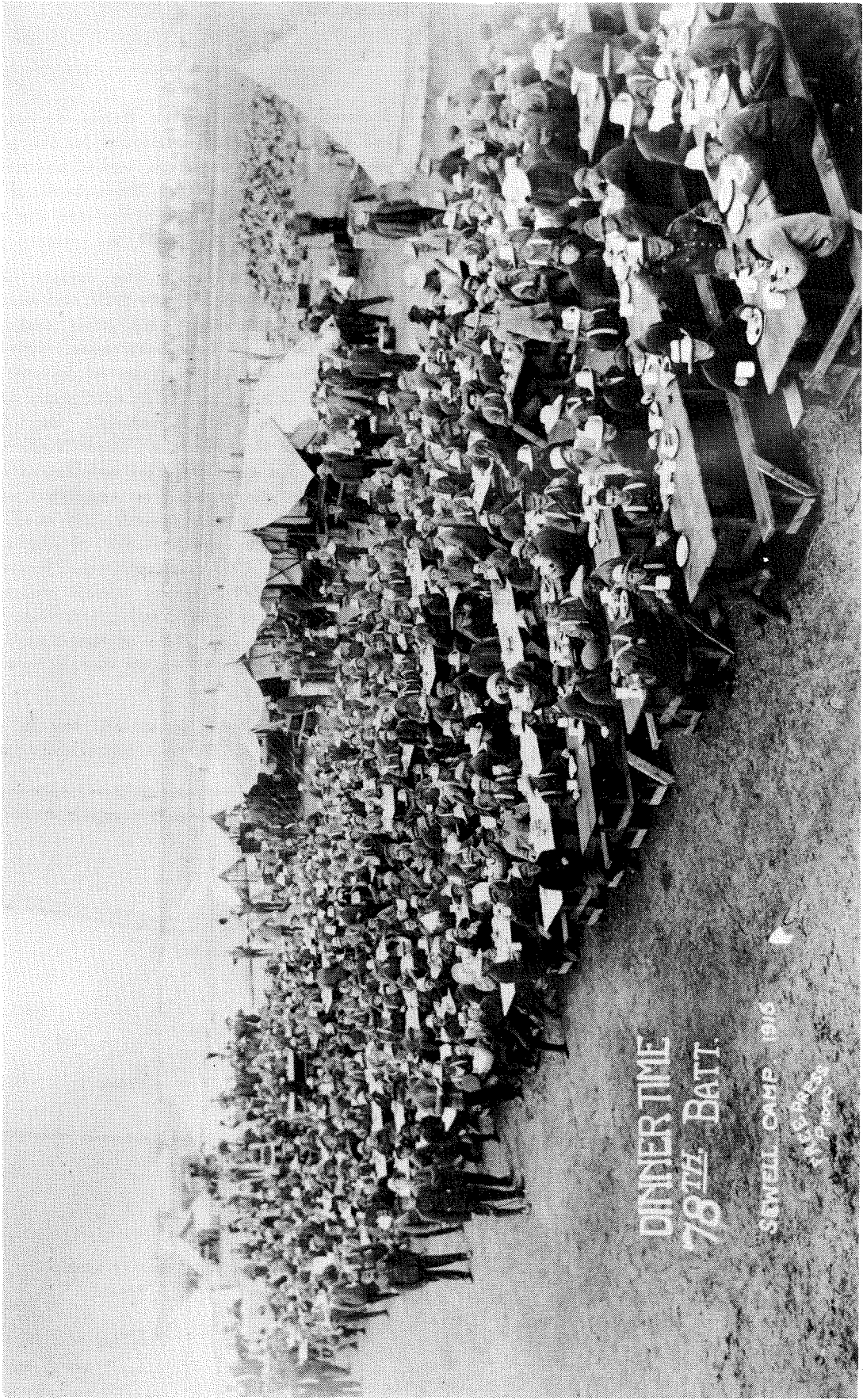
The Department of the Interior, however,

declared that the Spruce Woods Forest Reserve had been erected by parliament for the purpose of protecting the timber there, and of assisting in reforestation, and it (the Department of Interior) felt that making such use of the land would involve a complete departure from the original purpose.

The first camp was opened at Sewell, on CPR property on 21 June 1910, and was attended by 154 officers and 1,315 other ranks. Annual camps, for many years thereafter, were held at Sewell through the courtesy of several property owners. Exchange of lands contiguous to Sewell, in which the CPR, Hudson's Bay Company, University of Manitoba, the Canada North-West Land Company, and the Provincial and Dominion Governments were concerned, was suggested as a compromise, but (it was stated) this could only be accomplished by special Act of Parliament. In September 1911, however, the Department of Interior agreed to reserve certain tracts of land in the vicinity of Sewell, and it was these and other adjacent unoccupied tracts of land that the Militia continued to use in its annual training in subsequent summer camps.

World War 1 broke out, and in July 1915 the University of Manitoba Land Board complained





DINNERTIME
78th BATT.

SEWELL CAMP 1916

APR 1916

that a part of the military encampment was on the University section, and that the greater portion of it was being used by the 44th Battalion, CEF. As the Militia Department had been using it for the past several years, the Board offered to sell the land to the Department.

That same summer, the CPR changed the name of the station to "Camp Hughes" (as a compliment to Lieutenant General Sir Sam Hughes, KCB, Minister of Militia and Defence at the time) and in consequence, authority was given to change the name of the camp to conform. (Militia Order No 436, 27 September 1915).

In 1916, further purchases, extensions and improvements provided for the camping and training facilities of some 30,000 troops, the largest number in any camp in Canada at that time.

In June of 1921, the Department of Interior placed 2½ sections, which were not in the Spruce Woods Forest Reserve, under the complete control of the Department of Militia and Defence, extending Camp Hughes to an area of 88,320 acres or 138 square miles.

During the 1920s, Camp Hughes was used only as a summer camp by the Winnipeg garrison of the Permanent Force and by Western Canada Militia units. Notable among the PF units were C Bty, RCHA, B Coy, PPCLI, and A Sqn LDSH(RC). In 1930-31 Camp Hughes was closed down, and for a short period there were no training facilities in the area.

The change of camp site from Camp Hughes to a new location in the south-western area of Spruce Woods Forest Reserve between Onah Station and Shilo, on the CNR, was first considered in the fall of 1925. The area under consideration comprised about 70 square miles. The nature of the country varied from open plain to park-like lands very adequate for training purposes, especially in the practice of artillery, with suitable camp sites immediately south of the CNR right-of-way in the vicinity of Onah station. An entirely new camp layout at the southern site was estimated to cost \$148,000.00, the old temporary buildings in the northern camp being considered not worth salvaging. As the sum involved was considered to be prohibitive, the possibility of continuing to use the railway facilities at Sewell was examined, but it was found that the construction of a five mile road across the intervening muskeg could be effected only by the driving of piles at an estimated cost of \$1000.00 per mile. It was eventually decided that the northern camp should be completely abandoned, and the development of the southern area proceeded with gradually. To distinguish

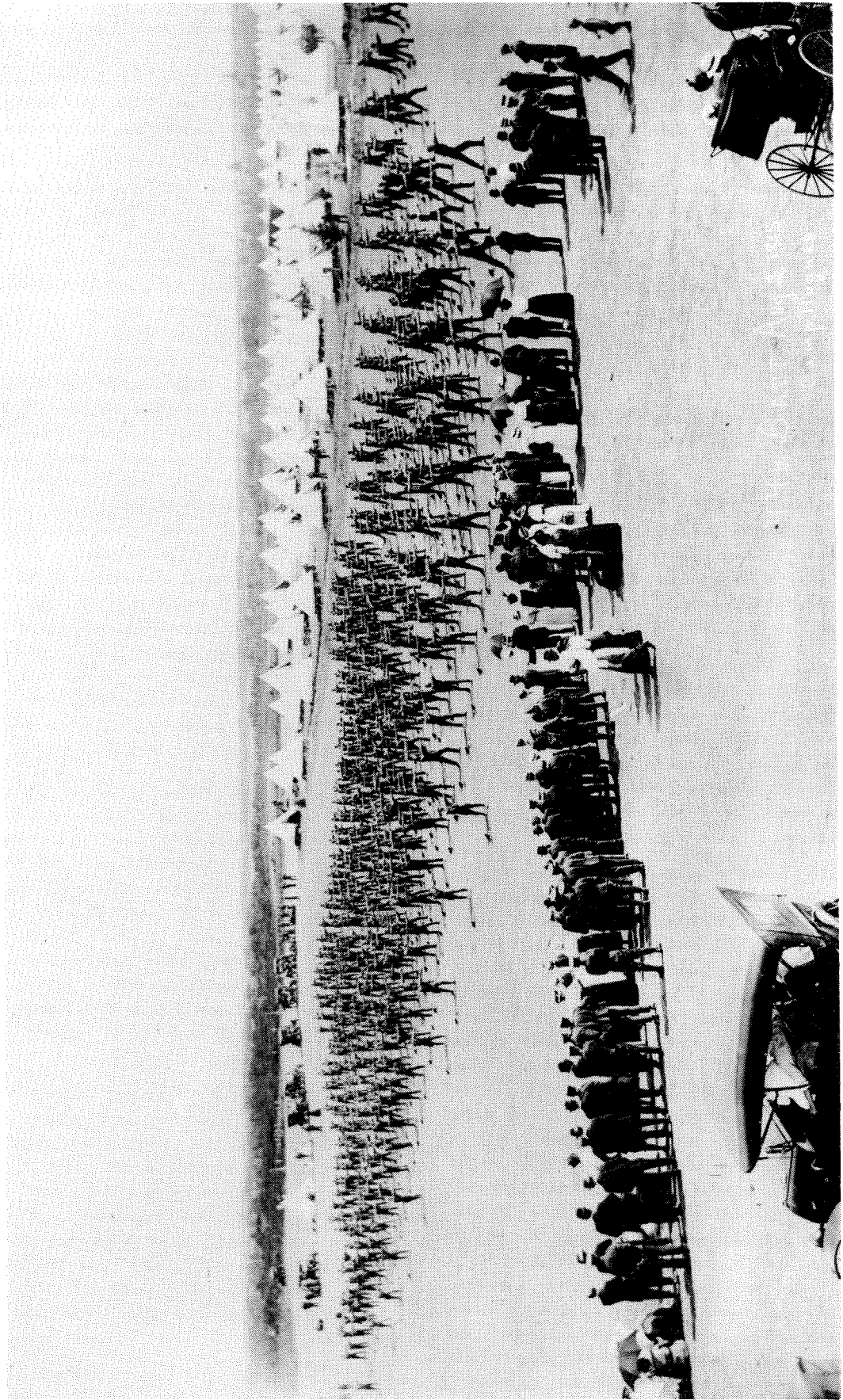
the new camp from the old "Camp Hughes", Major General JH Elmsley proposed the name "Shilo Camp" on 25 July 1928. The designation received ministerial approval in 1936 and was published in Military Order No 486, on 21 November of that year.

There have been numerous stories as to how Shilo got its name. There is a story of a mythical chieftain who died in mortal combat to save his tribe from destruction by the white man; there is the Biblical walled city (some 30 miles south of Samaria, midway between Jordan and the Mediterranean); but the 1933 edition of "Place Names of Manitoba" published by the Geographic Board of Canada, dulls these glamorous stories somewhat with this notation on page 81: "Shilo, - CNR station on 10-17-1 (1905) "Shilo" and the adjoining station "Leon" were named after Jewish peddlers." It has been said that these peddlers were popular camp followers of the construction gangs who worked in the area, and that for lack of any other name by which to refer to the locations, the gangs simply used the names of the peddlers. Possibly "Shilo" maintained a small store or cafe which served the workers and served as something of a community centre. It might be added here that the Shilo railway station at that time was located some 1½ miles west of where it now stands (1965). The first settler and resident of Shilo was an employee of the CNR, Mr W Dalgleish.

Late in 1931, the Royal Canadian Engineers carried out the first survey of the area that we know today as Camp Shilo. This survey took place in the area where the rifle ranges are now situated. Further surveys were carried out in 1932, and these included most of what is the present camp area. This survey included the discovery and planning of the camp water supply, a supply which is still in use, emanating from a vast underground lake. The survey expeditions were carried out under the leadership and command of Captain JH Leese, RCE (now retired).

The great financial depression of the 1930s brought Shilo its first inhabitants. They were members of the relief camp established by the Federal Government in late 1932. It was these personnel, under command of military engineers, who carried out the first construction of a permanent nature in the camp area. This was done in late 1932 and early 1933, the first building erected being the *Target Hut*, followed closely by the caretaker's house. The relief camp came to an end in 1936.

In 1934 the last remaining buildings of old Camp Hughes were removed. All that now remains at that site is a small cemetery wherein lie the



remains of members of the Army who died there during the war of 1914-18.

The new Camp Shilo had its first introduction to army training in the summer of 1934, and has ever since been in continuous use; first as a summer camp only, and then from 1942 as a permanent year-around establishment.

In 1940, World War 2 having started the previous autumn, Shilo began to assume the form we see today. Not only did a huge tented camp mushroom up overnight, but a major building program got under way. The growth of the camp during World War 2 was nothing short of phenomenal. In 1943, the army became air-minded and A-35 CITC (Parachute) was opened, from which came personnel who distinguished themselves as members of the First Canadian Parachute Battalion.

With the reorganization of the Canadian Army after the war, Shilo became the Home Station of the Royal Canadian Artillery other than for Coast and Anti-Aircraft elements. The Royal Canadian School of Artillery, and one regiment of RCHA, were stationed in the camp. Although responsibility for paratroop training shifted to CJATC, Rivers, Camp Shilo with its jump tower intact, still had a legacy in the form of the parachute packing and maintenance detachment (28 COD) and the jump tower staff.

Artillery training has been carried out continuously since 1946, with an increased tempo starting in August 1950. Since that date, 2 RCHA was trained and proceeded to Korea, 79th Field

Regiment was trained and proceeded to Europe, 1 RCHA trained and in their turn also went to Korea. In addition, Shilo is the scene of summer training of artillery units of the Militia. Also during the period of expansion of the Regular Force in the 1950's, a Winter Indoctrination School, cold weather trials for the Armoured Corps, and trials by the Directorate of Armament Development were conducted in Shilo.

The Canadian Provost Corps School was located in Shilo from February 1954 until September 1960. During the 1950's the permanent married quarters were built, construction being carried out by private contractors, under supervision of the Royal Canadian Engineers, and to specifications set by the Central Mortgage and Housing Corporation.

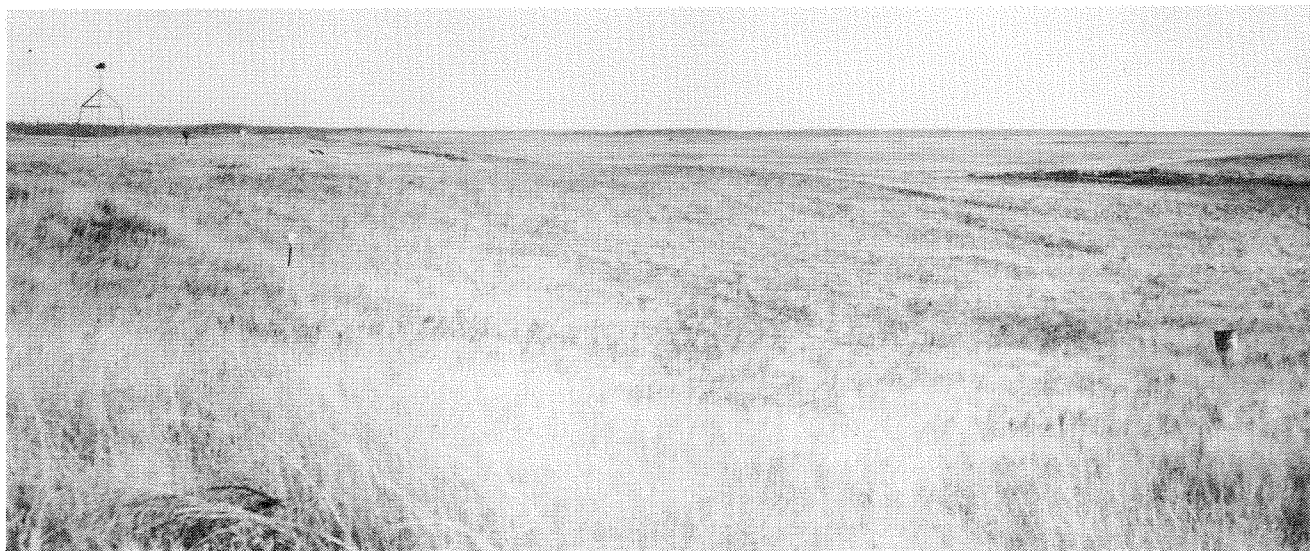
Coast and Anti-Aircraft Artillery establishments closed (1960) in Esquimalt, Halifax and Picton, and Shilo became the Home Station of the entire Royal Regiment of Canadian Artillery.

The Apprentice Training Battery and the Depot, RCA, were established in Shilo, (in September 1954 and August 1956 respectively), and since that time have turned out thousands of trained soldiers, for service in units of the Royal Regiment. The youngest artillery unit in the camp is 2nd Surface to Surface Missile (SSM) Training Battery, which came to Shilo from Picton in 1962.

*References: 1. The Canadian Gunner
Vol 4 No's 27 and 28 (1951)*

*2. Canadian Army Information Booklet
(1954)*

Note: The author of the articles in the references mentioned above is Captain JH Leese (RCE retired).



THE SCHOOL

ORIGINS

In January of 1872, a little less than five years after the Fathers of Confederation had completed their task, the first artillery schools were established in Canada, these being at Quebec and Kingston. Over the years, artillery schools (field, seige, coast and anti-aircraft), instructional cadres and artillery training centres have functioned at various sites across the country from Halifax to Esquimalt.

The RCSA as we know it today has been established at Shilo, Manitoba, since 1946. For the first several years of its existence, however, it was one of three schools of artillery operating in Canada, the others being at Esquimalt (Coast and Anti-Aircraft) and Picton (Anti-Aircraft). The schools at Esquimalt and Picton were closed down in 1954 and 1961 respectively.

THE PLANT

The present site of the RCSA and Home of the Royal Regiment of Canadian Artillery could, without too much prevarication, be made to sound like the ideal locale for a dude ranch. It consists of many square miles of diversified western terrain, ranging from thick evergreen bush and swamp in the Northern area, through poplar plains and shifting sand hills, southward to open, rolling country bordering on the meandering curves of the Assiniboine River. Landmarks, some with a deep historical background, such as the Yellow Quill Trail, the Stockton-Carberry Trail, Gibson House and the Bald Head Hills, add a truly authentic Western flavour. Each of the thousands of Gunners who have had occasion to trek across the Shilo ranges will have his own description. Some see a vista of great open skies, vast sunny spaces, far horizons and beautiful sun-sets. Some see a vast, searing wasteland.

The terrain is well suited to artillery training, and nature's contribution has been supplemented by the addition of such aids as permanent range communications, survey stations, heated range huts and observation posts to offset the infamous Shilo winter, an anti-tank range with moving targets, and a miniature village which is shelled by a miniature 14.5mm gun.

This latest acquisition, the *14.5mm Artillery Trainer Range*, requires only one thousand square metres of ground, and allows outdoor instruction in observation of fire and the engagement of targets at a great saving in time and money. All dimensions are at 1/10 scale, and the realistic

target layouts can be varied to suit any one of several map layouts in order to always present the students with a fresh challenge. The small explosive projectile which is used, and which is rather less in size than a shotgun shell, follows a high trajectory with a significant time of flight and produces a smoke burst on detonation at the target end.

The Anti-Tank Range, which was originally built during World War 2 by German prisoners-of-war, has suffered many vicissitudes over the years as the primary responsibility for this form of defence has shifted from the artillery to other corps, and as the emphasis of training has shifted within the artillery. This range has recently been refurbished, using local resources entirely, and now consists of a light gauge railway which follows an oval track, over which runs a stripped down, tireless and driverless truck, with gasoline engine, carrying above it a hessian tank. The gun detachments at the firing point see only the moving hessian tank, the truck below it being obscured from view, and from damage, by a protective earthen embankment. A device attached to the motor of the truck automatically varies the speed of the target as it progresses relentlessly and unconcernedly around the track amid geysers of sand and despite an ever increasing number of holes in its midriff.

ACTIVITIES

Although RCSA activity encompasses equipment trials, demonstrations, the publication of corps doctrine, assistance to field units, and preparation and conduct of officers' promotion examinations, what might be termed its *bread and butter play* is the conduct of artillery courses. A young man who joins the Royal Regiment of Canadian Artillery will spend a goodly portion of this career at the Home Station in Shilo taking, or perhaps instructing on, courses. These cover the whole spectrum from recruit training and basic officer training to the Master Gunner Course and Artillery Staff Course. In subject matter the courses range from gunnery to survey, radar and other target acquisition devices, artillery signalling, tactics, missile and nuclear target analysis.

RECRUIT TRAINING

Recruit training has been a function of the RCSA since September 1956. The present RCA Depot, (a component of RCSA) has trained over three thousand recruits, including some for the Infantry and the Ordnance Corps.

The recruit undergoes approximately thirty weeks of training at the RCA Depot, being progressively brought up to the level of Group 1 tradesman. As a first step he is taught the basic

skills of soldiering and the use of his rifle. He is then taught the use of infantry weapons, mine warfare, map using, and artillery organization. Much of this instruction is given in the field. Following this, the recruit is given First Aid, NBCW, and driver training, on the conclusion of which he graduates from the Recruits' Course and is assigned to a Group 1 Course.

Depending on his qualifications and aptitudes, the new soldier will now be trained by RCSA to the Group 1 level, either as a Gun Number, a Technical Assistant, an RCA Signaller or a Surveyor. He will then be ready to join a field regiment.

The days of the RCA Depot are numbered however, as present plans call for its closure as soon as the recruits now in this unit complete their training.

In the interest of economy, recruit training is being more centralized and will be carried out at only two or three depots across Canada. In future all RCA recruits are to be trained at the Queen's Own Rifles of Canada Depot, Calgary, Alberta. After finishing their recruit training, they will come to Shilo for driver and Group 1 training.

APPRENTICE TRAINING

The training of RCA apprentice soldiers began in 1954. A number of officers and NCOs now

serving with the regiment started their service as 16 year old boys in the Apprentice Battery. The course is of two years duration.

In their first year, the apprentices receive normal recruit training, instruction in National Survival and Physical Training and tuition in High School academic subjects. Extra curricular activities include voluntary service in the Apprentice Trumpet Band, a great variety of sports, and small bore rifle shooting. The apprentices compete against teams in camp and also against teams in the Manitoba Secondary School Athletic Association.

The apprentices take great pride in their appearance and drill, and set a very high standard in every respect. They are not permitted to wear such exotic clothing as *Beatle Boots*, levis, jazzy shirts and windbreakers, nor may they use alcoholic beverages nor purchase cars. During the first six weeks of training they are not granted any passes out of camp, but after this time they may be granted weekend passes to Brandon or Winnipeg. This is partially made up for by a generous leave of ten days at Christmas, four days at Easter and the annual leave of thirty days with up to four days travelling time.

The second year of apprentice training consists of learning a Gunner trade, such as



Volunteers



Basketball tournament at the annual Western Command Apprentice Tournament held in Shilo in March 1965. The competition came from RCSME, Chilliwack, BC

Surveyor or Technical Assistant, with the academic programme continuing on a stepped-up basis. During this phase, the cadets are allowed more passes, and special social functions are arranged for their entertainment.

SHILO CADET CORPS

The RCSA is the sponsor unit for the Princess Elizabeth Cadet Corps in Shilo. The RCSA provides instructors, training facilities and technical equipment. Aside from normal military training, the cadets visit points of interest in Shilo and the Canadian Joint Air Training Centre at Rivers, Manitoba. An aircraft ride with 3 RCHA Air OP Troop is arranged for any of the boys so inclined.

TRIALS

Most of us know the experience of running one's eye along a rack of new golf clubs in a sporting goods store and then picking one out for a few tentative swings. Sometimes the club feels just right, — perfect balance, length, weight, grip, etc. Sometimes it doesn't. If the club does suit us, we then have to decide (a) whether there really is a gap in our bag that this club will fill, (b) whether it will take very long to learn to use it properly and (c) whether we will be able to afford it.

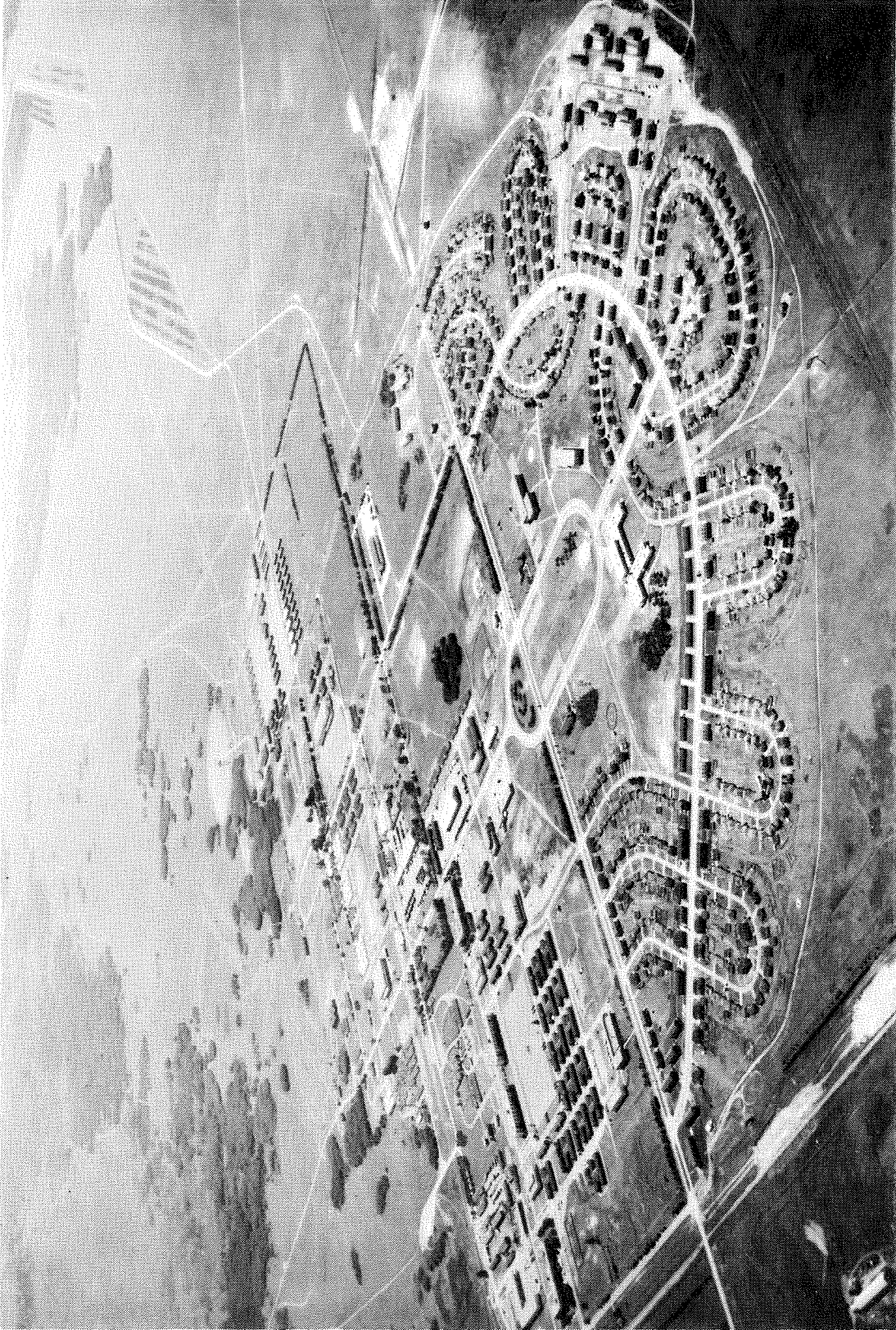
We go through the same process with each

new device that is proposed for use in the regiment. Some of these, such as the CL-89 drone, and the new sound ranging system, get lots of publicity, but the majority are tested and adopted (or rejected) in comparative obscurity. The job of testing and assessing is done by the Trials and Technical Investigation Section of the School with the co-operation of all the other sections and various outside units.

To take some concrete examples: Last month RCSA conducted a meteorological trial designed to provide basic information for the development of the new sound ranging system. The trial took about five weeks altogether, including setting up and clearing away, and involved approximately 120 all ranks.

In addition we have simple trials:

- a. A target computer designed for use with the Navaid System.
- b. TIARA, a chessiruminescent substance, suggested for marking aiming circles for Air OP fixation at night.
- c. A nuclear light source proposed as a night survey aid.
- d. A new apparatus for quick night sight testing.



*Camp Shilo
Home Station of the Regiment*



During 1965 over 20 formal trials were arranged. Some of these have been completed, others, such as the assessment of the FADAC computer, are of a continuing nature, and still others have been interrupted so that equipment can be modified before the trial is completed.

If a Gunner at CFHQ (or at the school or in a regiment) or one of our liaison officers in a foreign country spots a likely looking gadget that he thinks would be of use to us, in all probability a trial has been conceived.

For a complex device, a formal trial will be arranged. Either RCSA or CFHQ will produce a draft trial directive, circulate it for comments, and then publish an agreed version. Stores, personnel, vehicles, and ranges must be found, and liaison set up with any outside agencies and units involved. However, if a relatively simple piece of equipment is to be tested, the administration is quite often limited to a letter or two, a few phone calls and a brief, informal report.

For instance, the meteorological trial carried out last month was one of a series of trials. In 1963 two sound ranging trials were carried out to assess a new computer recorder designed by NRC. The results of these trials showed that more background information was needed on the effects of meteorological conditions on sound ranging. A lot of work was done to establish just which conditions needed further investigation. As a result, two meteorological trials were initiated, under summer and winter conditions. Phase 1, the summer trial, took place in September 65, and Phase 2 during November/December 65. The Plan of Test for these trials was produced by CFHQ and ran to 10 pages; the Trial Directive issued by the School went into more detail and filled 18 pages. The Plan of Test is a technical document that lays down the aim of the trial, and in general, the way in which the trial is to be carried out. The Trial Directive is more in the nature of an Administrative Order, detailing personnel, ranges, vehicles, stores, timings, etc.

In contrast, the test of the nuclear light source involved five people and took about an hour to carry out. This particular light was a commercial item produced for such uses as signals in mines and emergency signs in aircraft. Compass illumination: illumination of sighting and fire control instruments; map reading lights; aiming post lamps; these are only a few uses for nuclear light sources. Incidentally, they give off less radiation than a wrist watch, so one needn't worry about hanging that new compass on his uniform.

It's impossible to generalize about trials and tests - the only certain aspect is the uncertainty, and the only unchanging part is the

changeability. Seldom is a trial repeated exactly, and that is what makes this part of the game so interesting.

OFFICERS' PROMOTION EXAMINATIONS

Every autumn, scores of hopeful lieutenants and captains converge on the Home Station. Some coming many thousands of miles, seeking the Holy Grail of acceptability at the next higher rank. This pilgrimage is not without great preparation. The mind is conditioned by hours of meditation and reading of the prescribed tomes, and the nerves are conditioned by cherished potions and words of exhortation and encouragement from the tribe elders. It all comes to a climax on the top of a sand dune in Shilo where the anxious aspirant finds himself gently but firmly inserted into the key position of an unextraordinary tactical problem which he is told to sort out with the aid of a number of howitzers.

The first hurdle on the road to promotion is the Part 1 set of examinations (Common to all Arms) which is set and marked under CFHQ arrangements. Various writing centres are set up across the country for these examinations, the candidate sitting at whichever centre is nearest his station. The Part 2 examinations, however, for Gunner officers, are prepared and conducted at RCSA. The examinations require a thorough preparation. Part 2A is designed to determine whether the candidate has a sound working knowledge of infantry and armour organizations, weapons and tactics; and the testing is done in a tactical situation on the ground. Part 2B is designed to determine whether the candidate can carry out the appropriate duties at the Gunner officer level concerned; again the testing is done on the ground.

When the candidate finally picks himself up off the ground, he is told whether he will return to his unit under the aura of qualification to the next higher level, or whether it is a matter of *better luck next time*. In either situation, the Home Mess enjoys a brief period of exceptional prosperity.

As the school does not normally have the necessary number of officers of field rank to cope with this annual examination commitment, a number of Gunner majors are temporarily brought in to supplement the Directing Staff, giving the candidates an unusual opportunity to study, and be inspired by an exceptional array of regimental veterans.

The School is a busy place. Doctrine is evolved and studied in its offices, classrooms and on its ranges, in an atmosphere of expertise, against a background rumble of gunfire which can be heard rolling across the prairie almost any day of the week. Visitors find much to engage their attention. The staff find their work rewarding.

HAPPENINGS AT OTTERLOO, HOLLAND, ON THE NIGHT 16/17 APRIL 1945

The following is an account of the action of the 17th Canadian Field Regiment RCA at Otterloo, Holland, in April, 1945. It is reprinted here so that junior officers and senior NCOs, who have not served on active service, may benefit from the experience of the Canadian Gunners involved. The engagement at Otterloo, and the lessons learned from it, give a graphic example of the necessity for junior leaders to take a serious approach to local defence and to learn to appreciate its importance when carrying out artillery deployments. If serious reflection is given to this account it will be seen that local defence planning cannot consist of a general wave of the arm and statements, which are often heard, such as "weapon slits over there, machine gun over there;" and, "a sentry over here". The security of the gun position requires a more serious and knowledgeable approach by the officers responsible for local defence.

5 Canadian Armoured Division had been given the task of passing through 49 Infantry Division at Arnhem and breaking through to the sea in the area of Nijkerk with the aim of preventing the enemy from carrying out a withdrawal into the western part of Holland, and also of getting behind the enemy being engaged by 1 Canadian Infantry Division to the east of Apeldoorn.

5 Canadian Armoured Brigade had reached Otterloo on 15 April 1945 and had passed through to Barneveld and Nijkerk. 11 Canadian Infantry Brigade was detailed to mop up along the axis of advance and to hold the line of communications. To do this, battalions were deployed as follows:

The Irish Regiment of Canada, Otterloo
Cape Breton Highlanders, Barneveld
The Perth Regiment, the high ground
east of Lunteren

To give support for the infantry brigade, 17th Canadian Field Regiment and 211 Battery, 3rd Medium Regiment Royal Artillery were to deploy in the area of Otterloo as soon as the town was clear.

The regimental reconnaissance party reached the town of Otterloo at approximately 1400 hours and found that the town had been cleared, but the woods on the outskirts of the town were still being cleared. The reconnaissance was carried out and the first battery deployed by 1640 hours. The other two batteries and regimental headquarters were delayed carrying out an air observation post shoot in the old area and did not arrive until 1900 hours. By nightfall the following units were in and about the town: Main Divisional Headquarters, a squadron of the Governor-General's Horse Guards, Regimental Headquarters of 17th Canadian Field Regiment, 211 Battery of 3rd Medium Regiment Royal Artillery, Headquarters 4 Canadian Anti-Tank Regiment, The Irish Regiment of Canada and 24th

Field Ambulance Royal Canadian Army Medical Corps.

Command post officers were warned on their arrival that there were still enemy snipers in the area and that they would make their own plans for local defence and co-ordinate with the nearest company of the Irish Regiment of Canada. The dispositions of 17th Canadian Field Regiment were then given to the headquarters of the Irish Regiment of Canada.

The regiment settled into the new area during the evening and worked out defensive fire plans for the 11 Canadian Infantry Brigade area and carried out some harassing fire.

After the reconnaissance was carried out, and during the evening, there was continuous movement of troops and units in and out of the area. Thus it was next to impossible to co-ordinate defences with other units.

At 2320 hours a report was received by the 37th Battery, from an officer of the Governor-General's Horse Guards, that there were approximately 200 enemy 2000 yards north of their position.

A short time later (at 2359 hours) sentries reported to the 76th Battery command post that enemy were moving south down the road between E and F Troops. Fire was opened on them and regimental headquarters notified at 0100 hours. 76th Battery command post reported at intervals for the next two and one-half hours that they were being attacked and that the enemy had passed through their position and were digging in between E and F Troops. All personnel had manned positions either around their guns or in the immediate vicinity of the gun positions on the first warning of the enemy attack. 76th Battery command post passed each report on the situation by wireless and directed the fire of the guns of 60th Battery on the woods some 200 yards from their position. One shoot

in this area successfully silenced a mortar. The 60th Battery guns were firing at ranges from 750 to 1000 yards in support of 76th Battery. Harassing fire was carried out by 60th and 37th Batteries on the roads running to the north and north east out of Otterloo. 2/11 Medium Battery Royal Artillery harassed the concentration and shot down to 2300 yards.

At approximately 0300 hours the command post officer of 76th Battery reported that the situation was becoming serious. All contact was lost with F Troop when its command post was overrun. The command post personnel, however, had successfully withdrawn and joined the detachments on the gun positions and had dug-in in an open field. A driver, knowing the enemy to be dug-in along the road, volunteered to take a scout car and pass information back to headquarters of the Irish Regiment of Canada. He drove down the road with rifle and medium machine gun fire bouncing off the side of the vehicle and reached battalion headquarters where he reported the situation. The battery sergeant-major reported to regimental headquarters for the same purpose and then volunteered to go to battalion headquarters, which he did.

The command post officer of 76th Battery then pointed out that they could not hold out indefinitely and that unless help arrived the whole gun position might be overrun. Eventually, when the command post was on fire and the set knocked out, the personnel withdrew to the E Troop command post where another set was put on the regimental net and the position re-organized with the extra men. The personnel of F Troop remained on the position throughout the entire night and killed 5 enemy on the actual position, wounded 4 more and took 22 prisoners. They caused a further unknown number of casualties to the enemy passing around the position and knocked out the crew of at least one medium machine gun. The ammunition trailers on the position were all set on fire and three of the four guns disabled by medium machine gun fire. The position was surrounded on three sides for over six and one-half hours, during which time the enemy approached to within ten yards of the guns, but all were killed or driven back before actually reaching the guns. The position was under mortar fire and also some of our own rounds fell in the area when the command post was engaged by our guns after it was evacuated. The drivers from this troop, who were some 500 yards in rear, defended their vehicles until all nine were wounded, when they fell back into the Irish Regiment of Canada area. They provided most effective cross fire on the enemy as he came down the road.

Shortly after the 76th Battery command post withdrew, the 37th Battery command post

called for assistance and stated that the enemy were now moving across to their area. The enemy penetrated to within 20 yards of the command post overrunning the vehicles and the signal office. The signallers, when the enemy entered the building and found out from the civilians which room was occupied, waited until they approached the room and then shot their way out and rejoined the command post personnel. The command post held out until relieved in the morning, while the men stayed with their guns. When the enemy approached to within 75 yards of C Troop guns, the troops opened direct fire with time fuzes (No 222), set at four seconds time of flight. This was subsequently reduced to two seconds time of flight, which brought the bursts over the enemy positions. The enemy were seen to move out and take cover. At approximately 0300 hours an enemy self-propelled gun started firing from about 400 yards north of the 37th Battery command post. As it was thought that this gun might penetrate into the position, *Tank alert* was ordered. The guns were manned in spite of heavy small arms and medium machine gun fire.

A short time after the 76th Battery command post personnel moved onto the E Troop position the battery commander arrived at regimental headquarters and explained that ammunition was running out and that the position at E Troop could not be held for long unless more ammunition was available. No ammunition was available at regimental headquarters as the reserve had been issued to batteries. The command post officer, when he found his ammunition gone, asked for direction as to whether they would remain with their guns or withdraw to regimental headquarters. He was ordered to withdraw and brought back the command post personnel and E Troop personnel. The defences at regimental headquarters were reorganized and ammunition redistributed. The enemy came to within 50 yards of regimental headquarters, but did not penetrate the position.

The enemy had now cut off regimental headquarters and the regimental headquarters of 4th Canadian Anti-tank Regiment from the rest of the units in town. They had gone right through to 2/11 Medium Battery Royal Artillery and Divisional Headquarters, but were stopped in both places. One patrol got through to the 60th Battery area, but after a sharp clash with small arms, Spandau and grenades they were wiped out after causing some casualties. The morning showed three direct hits with mortars on battery headquarters, and battery and troop command posts were riddled with bullet holes.

There was fairly heavy mortaring on the whole area during the night, in spite of which the guns of 60th and 37th Batteries and 2/11 Medium

Battery Royal Artillery continued to fire on the area to the north of Otterloo. When 37th Battery came under direct small arms fire, and prepared to engage over open sights, targets were all passed to 60th Battery. Ammunition on the 60th Battery position ran dangerously low and the drivers and ammunition numbers drove their vehicles on to the gun position and dumped ammunition while under small arms and medium machine gun fire.

From 0530 hours onward, the whole area was subjected to heavy and medium machine gun and small arms fire and some mortaring. As daylight approached, the intensity of fire increased although there were no organized attacks on regimental headquarters or on 37th Battery.

A group of men falling back from 76th Battery to regimental headquarters missed the area and moved on down the main axis to the east. They came across a group of the assault squadron Royal Engineers and explained the situation to them. As soon as it was light, they moved up with their Churchill tanks and entered the area with everything firing. Unfortunately, they were not given full information as to the locations of units in the town and some casualties were suffered. As they passed regimental headquarters, some of the men contacted them and gave them the picture. They then contacted the Irish Regiment of Canada and together advanced and cleared the woods to the north, using flame throwers. The assault squadron Royal Engineers undoubtedly arrived just in the nick of time to save regimental headquarters and possibly 37th Battery and F Troop from being overrun. Their prompt action turned the tide.

As soon as permission was obtained from the battalion commander, the personnel of 76th Battery Headquarters and E Troop moved back onto their positions, mopping up en route. They arrived to find F Troop intact having already mopped up their gun area and having breakfast and a clean up.

Valuable assistance was given to 37th Battery by a Dutch Red Cross man, name unknown, who showed complete disregard for his own safety in helping our own and civilian casualties in the area. He went in and out of the civilian houses in the area of the 37th Battery command post throughout the period.

All concerned were most grateful for the excellent work carried out by 2/11 Medium Battery of 3rd Medium Regiment Royal Artillery. Although constantly engaged by enemy mortars and suffering casualties to the extent of 2 killed and 11 wounded, they continued to fire defensive and harassing fire in front of 37th and 76th Field Batteries throughout the night. On one occasion a German patrol succeeded in penetrating to their gun posi-

tion, but was seen off by small arms fire, leaving one dead.

The assistance given by the troops attached to the regiment was all that could be desired. They were as follows:

Left section E Troop, 1 Canadian Survey Regiment;

E Troop 5 Canadian Armoured Division Signals;

The Royal Canadian Corps of Signals;
58th Canadian Light Aid Detachment
Royal Canadian Electrical and Mechanical Engineers;

Detachment from Division Troops, Royal Canadian Army Service Corps.

Casualties suffered by the regiment during the engagement, were as follows:

Personnel	RHQ	60th Bty	37th Bty	76th Bty	Total
Killed		1		2	3
Wounded	1	2	1	16	20

Vehicles and Guns

25 pounder Mark II				3	3
Motor cycle solo				1	1
15 hundredweight truck				2	2
3 ton truck				1	1
Field Artillery Tractor				3	3
Heavy Utility Wireless				1	1

Casualties known to be caused to the enemy

Personnel

Killed		4	3	16	23
Wounded		5	2	4	11
Prisoners of War	6		4	26	36
Total	6	9	9	46	70

Equipment

Anti-tank guns					3
Vehicles (lorry)					1
Wagon and horses					1

Lessons Learned

The lessons learned by this regiment were not new, but merely repetitions of lessons taught over and over again.

- a. That every man must be trained to protect himself with his own small arms weapon.
- b. That small arms fire must be controlled, and men taught to fire only when they can see a definite target.
- c. That without a field of fire, a position cannot be defended no matter how courageous the defenders may be.
- d. That men dug-in in the open, stand a

much better chance than those in and around buildings.

- e. That the final outcome of any such battle depends on the resourcefulness and ability of the junior officer and non-commissioned officer.
- f. That a knowledge of basic gunnery principles is essential in order that when the normal equipment is not available the

Gunner officer can still carry on with improvised means.

- g. An artillery regiment must always be prepared to defend itself against direct attack.

The type of operations now being conducted in South East Asia, and which may occur in other parts of the world, places further emphasis on the requirement for effective local defence and command at the gun position.

WARRANT OFFICERS MOVE



On 15 April 1965, WO1 JG Stevens was replaced by WO1 GN Malcolm as RSM. WO1 JG Stevens served with the 5th Heavy Battery from 1939 to 1940, the 5th Coast Brigade from 1940 to 1942, and then as RSM of the 27th Anti-aircraft Regiment from 1943 until 1945. Following the war he was RSM at RCSA (Coast and Anti-aircraft) from 1946 to 1952, GSM at Camp Shilo from 1952 to 1955, and RSM of 3 RCHA from 1955 to 1965. In April 1965, he was appointed RSM at RCSA Shilo.

RSM Malcolm served with the 5th Field Regiment in England and North West Europe throughout World War 2. He was a founding member of 2 RCHA and served with that regiment from 1950 until 1963. In 1963, he came to 3 RCHA and served as BSM of Z Battery until last April when he was promoted and appointed RSM of the 3rd Regiment.

**7th FIELD BATTERY
34th FIELD REGIMENT(M)
ROYAL CANADIAN ARTILLERY**

The 7th Field Battery is one of the two oldest batteries in Canada, sharing that distinction with 2nd Field Battery of Ottawa. It was formed in 1855, some few weeks after the recently deactivated 57th Locating Battery of Quebec City. The Battery saw service in the Fenian Raids and in both World Wars. Originally known as The Montreal Volunteer Field Battery, it became 3rd (Montreal) Field Battery and then, more recently, 7th Field Battery. In January of this year, when the rest of 34th Field Regiment was deactivated, it was reformed as an independent battery. The original members consisted of about equal numbers of ex-34th Field and 37th Field Regiment officers and other ranks. The Battery is now rapidly coming up to full strength and it is hoped that before too long we shall again have a regiment of Artillery in Montreal.

Shortly after its inception as an independent unit, the Battery was moved from its longtime home in Craig Street Armouries to a new location in the Lacombe Armouries, previously occupied by the 4th (Chateaugay) Bn R22eR, which location it now

shares with 50th Field Battery. As a result of the move things are even now just settling down, and the messes have yet to be redecorated. It is generally felt that the new location is a better one, considering the fact that almost all our personnel are drawn from the suburbs of the City.

The training programme for the past year has really been a continuation of plans formulated by the 34th and 37th Field Regiments. A certain spirit has developed and this has shown itself in the attendance returns and the large number of qualified personnel that we have attracted and held. In the late spring and early summer trades tests were held by Quebec Command and now over 70% of our ORs have at least one Group One in an RCA trade. Seventeen gunners attended SMT 2 and a smaller number SMT 1. In both cases, members of the Battery acquitted themselves with distinction. One officer and a group of senior NCOs spent a week at Camp Wainwright in company with 3 RCHA and 18th and 20th Field Regiments. Our plans for the coming year include a firing weekend at Camp Petawawa and participation in a company exercise with supporting arms directed by the Royal Montreal Regiment. At present, we are doing battery deployments every second weekend and running TMM and Recruit courses at the same time. Technical and NCO courses, as well as a detachment commander's course, are planned for the spring.

*Alleged to have fallen
from the pen of an anonymous officer
in Kingston, Ont, 1930*

UBIQUE

The Royal Regiment (Peace be theirs) are a grand and varied lot,
Some of them move at a walking pace, and some perform at a trot.
But first of all the *Ubique* folk (as their world wide motto runs)
Are the Royal Canadian Horse Artillery, with the galloping galloping guns.
How well they ride with the Cavalry (yes) and are rightly proud of that,
And proud I ween, of the jacket they wear, and their specially noble hat.
And some have held they'd have reached the height of the soldiers wildest dream,
Except for the awkward professional guns that spoil the look of the teams.
But all is change in a world of change, as all of us have to find;
And high romance has never a chance with a really inventive mind;
And mechanization has stretched a hand o'er the Battery (some say *Troop*)
And the Royal Canadian Horse Artillery is doomed, alas, to the soup.
Mourn, mourn for the corps d'elite, for the Right of the Line make moan.
For the champing bit and the pawing hoof, and the glamour that's overthrown,
For the last sad hour when warriors bid farewell to their favourite steeds,
And the lines grow mute to the jubilant neigh at the stirring call of feeds.
Doubt not they will suffer in silent grief, for it's commonly understood,
That soldiers are born to be got at, and to bear it as brave men should,
But many a gunner for many a day will swallow a tearful lump
When the Royal Canadian Horse Artillery turns into a petrol pump.

THE NEW MODELS

Ever since man first hurled a stone at his startled neighbour, the search for a bigger and better boulder has been on. Many of us have been watching the new boulders come and go long enough to know that the one in our hand is invariably obsolescent before we throw it, and that the boys in the back shop are carving out a better one, with sharper angles, while, still farther down the line, the sages are devising one on paper to be even more efficacious. The moving belt seems endless, and the warrior standing at the delivery end of it is understandably concerned as to the type of weapon that is likely to come to his hand when the next flurry of throwing begins.

We recently sent a man to the house of the sages. They were in a generous mood and readily agreed to a short interview.

Our Man: Sir, they say the 4.2 mortar has had it. What's the score on this?

Sage: The 4.2 inch mortar is a very good weapon under certain circumstances, but it is, as a matter of fact, the present intention that the M30 model 4.2 mortar, now on issue to 4 RCHA (the Special Service Force Light Regiment), will be replaced by a weapon with greater range and other improved features. The new weapon will probably be a 120mm rifled mortar with a range of approximately 12,000 metres.

Man: 12,000 metres! Sounds more like a howitzer. Incidentally, there's a lot of talk around about a new howitzer.

2nd Sage: Yes, in June 1967 you can expect to start receiving self-propelled 155mm howitzers - the M109 model. Six of your close support batteries will be equipped with this howitzer, and ten of the weapons will be delivered to the School.

Man: I have a note here to ask about some of this new locating equipment. Is there really something coming up?

1st Sage: Oh yes. Beginning in January 1966, the Locating Battery and the School will start receiving AN/MPQ 501 counter-mortar radars, mounted on M113A1 armoured personnel carriers.

2nd Sage: And also of course, there is the new sound-ranging system, which is a joint Canadian-British project now in an advanced stage of development. This system will be undergoing service user trials in 1966 and should be ready for service in the hands of the Locating Battery by early 1968.

3rd Sage: Don't forget the drone.

2nd Sage: The AN/USD 501 drone, which was originally designated the CL89, is also a joint British/Canadian project. The USA are providing test facilities in Yuma, Arizona, for this project, and we have quite a number of Canadian and British military personnel down there. This drone should be ready for user trials in Shilo by early 1967, and it is hoped that it will be ready for service by 1968.

Our Man: This is all very interesting. What about computers?

All the Sages: *Computers?*

1st Sage: Ah yes, he means automatic data processing systems. Do you mean automatic data processing systems young man?

Our Man: My notes say computers, but we'll ignore them from here on.

1st Sage: A lot of work has been done, in various countries, on automatic data processing systems. Models have been in use at various training centres, including Shilo, for some time. It is now intended that development of a Canadian model will be initiated and, unless plans go awry, this equipment should be in the hands of troops during 1968. It is expected that it will be issued to the howitzer battery level and possibly to mortar battery level. Missile batteries will of course receive this equipment.

2nd Sage: Another new piece of equipment is the gyro orientor, a device to improve the performance of angular bearing measurement instruments. Several models are in various stages of development in various countries and therefore a measure of selection is possible. When available, the gyro orientor will be issued to howitzer batteries and to each troop of the Locating Battery.

Man: What about death rays? We hear

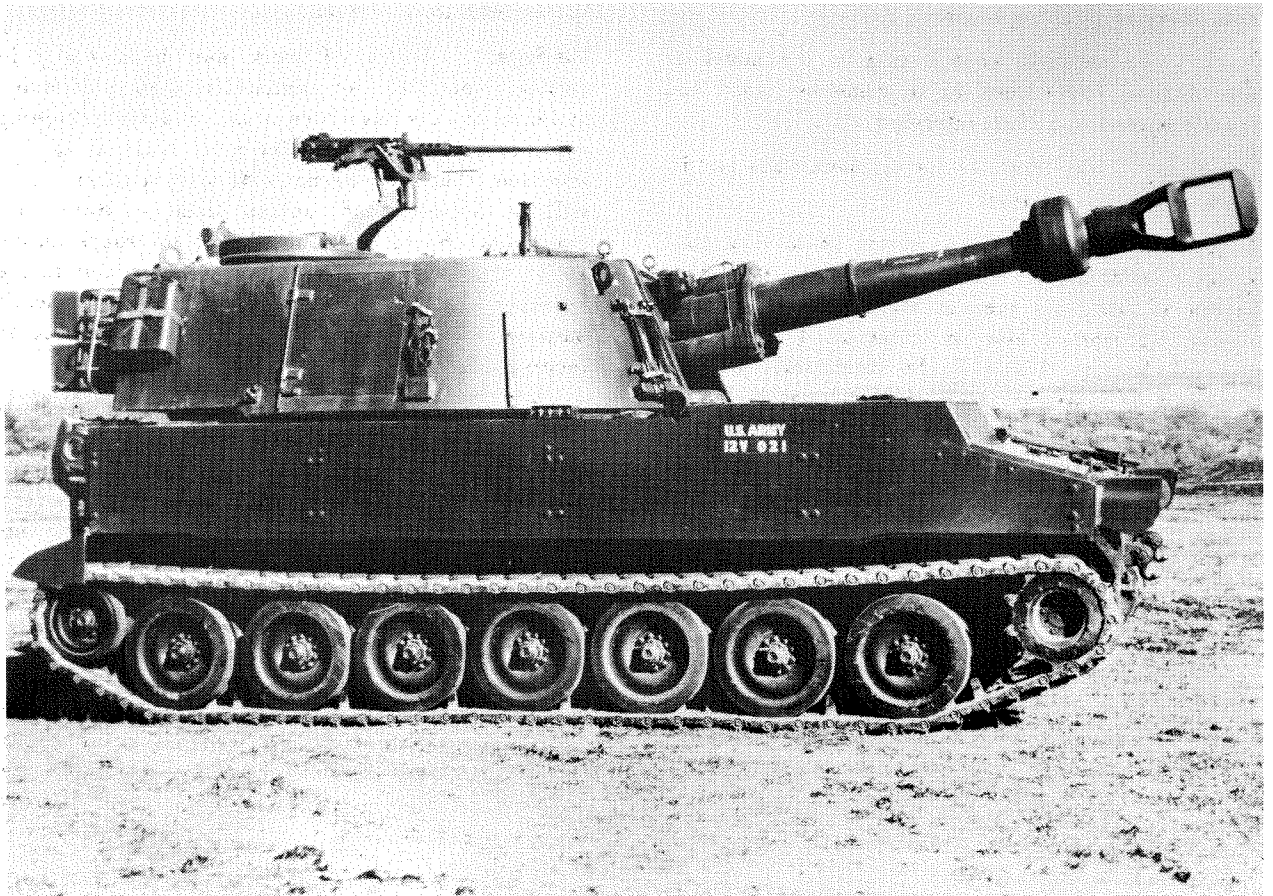
2nd Sage: I was about to add that, another item that the Locating Battery will be receiving, is the AN/GMD2 mobile electronic meteorological equipment. This will be a tremendous improvement over the present met equipment and should be available in 1967.

1st Sage: The field organizations within which the new equipments will be absorbed may themselves be somewhat unfamiliar to you. The three close support regiments of the CA(R) will each have four

batteries of eight howitzers each. 4 RCA has been reorganized on the establishment of the Special Service Force Light Regiment with three batteries, each battery to have eight heavy mortars. The new Locating Battery, now in the process of receiving men and equipment in Winnipeg, has an establishment which includes a survey troop, a meteorological troop, two drone troops, a counter-mortar radar troop, and a sound ranging troop.

Our Man: You boys have certainly been busy. What's that sage over there working at?

Our man doesn't remember very clearly what happened next. There was a buzzer, a pounding of feet, a rush of humanity, he was swept out into the hallway, where he regained consciousness several minutes later. The door to the sages' office was securely locked. The building was silent and deserted. It was 1635 hours.



M 109, 155 HOW SP

THE REGIMENTAL MUSEUM

During the past year the museum has received a great variety of items ranging through guns, uniforms, ammunition, medals, accoutrements, artillery instruments, documents and books, photographs and clippings.

The task of gathering, refurbishing and cataloguing a sufficient cross-section of items to make up a continuous historical record of the history of the Regiment is extremely difficult in that only in the past few years has any organized effort been made to retain and preserve the methods,

tools and records of the Canadian Artillery. It is through the personal efforts of a great many, members of the Regiment, active and retired, and their widows and survivors, and visitors who have taken an interest, that the museum has been able to gather the items that serve as a permanent historical record of a proud past.

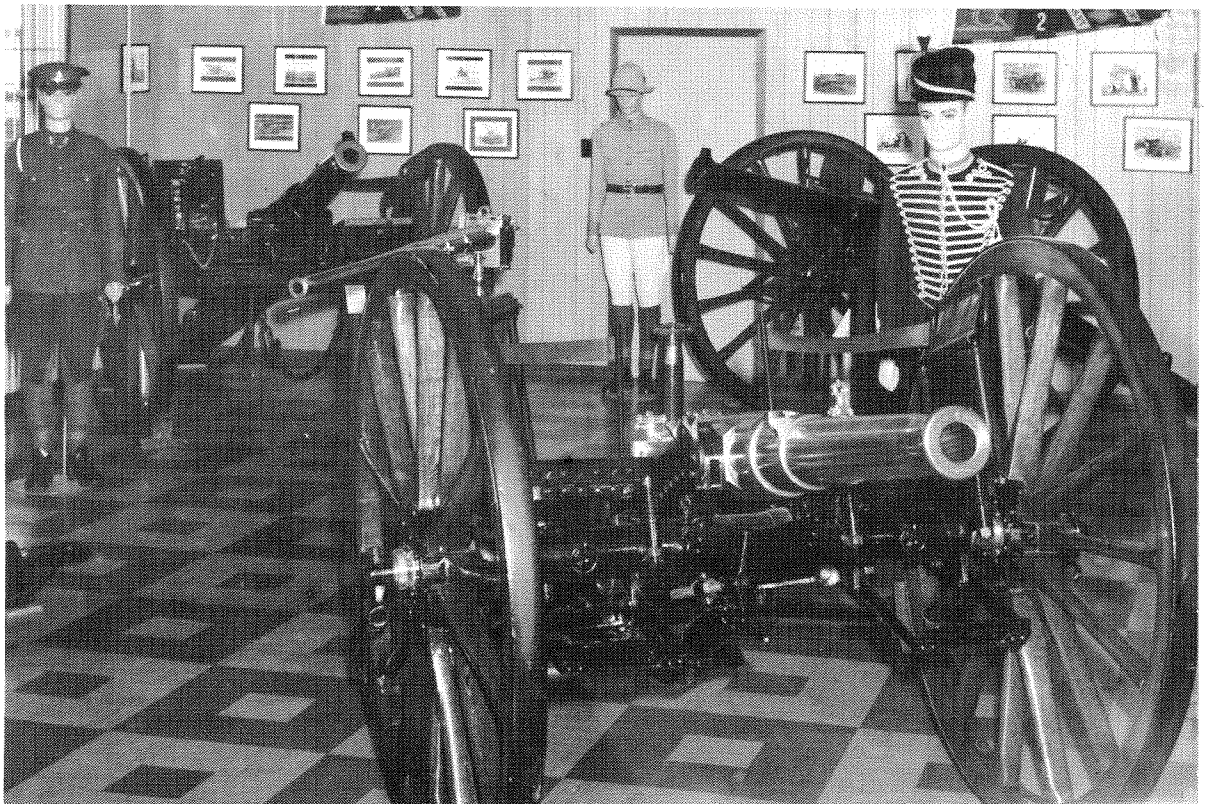
It is not possible to list all the items that have been received in this article, but the photographs on the following pages show some of them as they are displayed in the museum. Due to lack of suitable display areas some items have been catalogued and put in storage and will be used when displays are rotated.



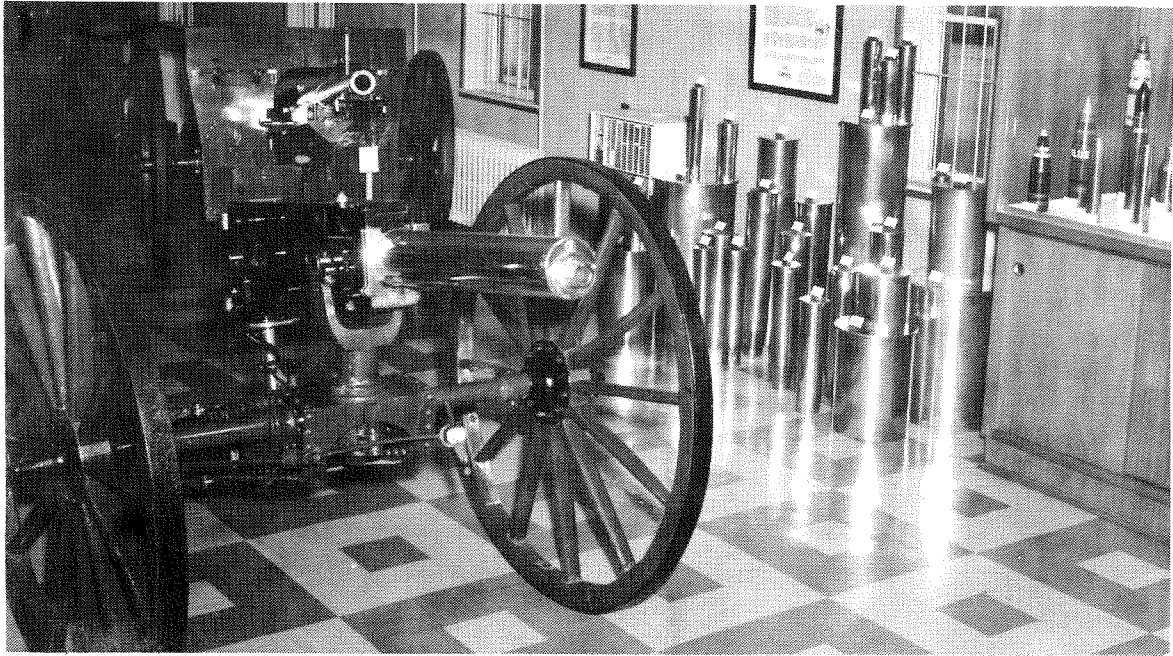
The medal case in the background contains a collection of the service medals, which have been awarded to Canadian gunners from Queen Victoria's reign to the present time. There are also campaign medals from the Crimea, decorations and miniatures. The medals mounted on the rear face of the case belonged to Major General JH Roberts, CB, DSO, MC. The mannequin is dressed in an officer's uniform circa 1879 and the framed portraits at the top of the picture are part of the collection of portraits of all the Canadian gunner officers who attained the rank of Major General or above.



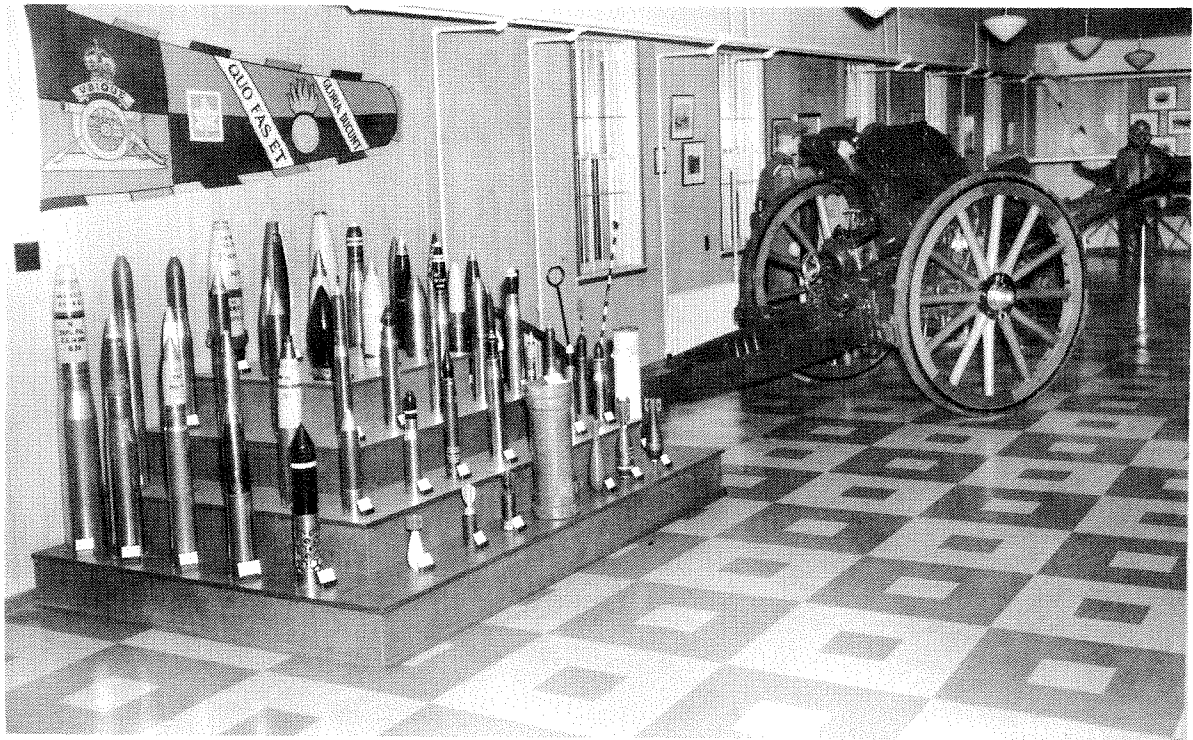
The India Camp Chest on the left, was presented by Major "Busty" Kear, along with the officer's wash stand. The Picnic Chest to the right of the wash stand belonged to Major General HA Panet, and was attached to the running board of his World War I staff car.



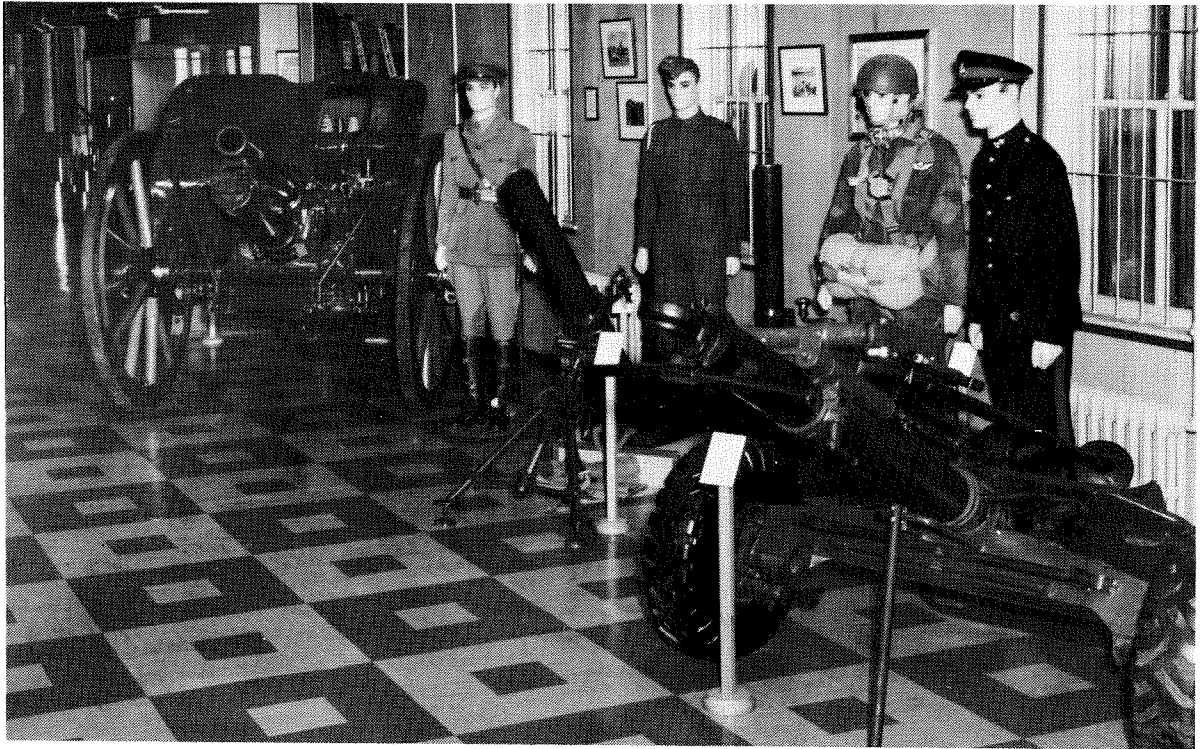
The guns in the background are a 9 pounder 8 cwt and a 9 pounder 6 cwt. They are both Rifled Muzzle Loaders and were used during the Northwest Rebellion. The gun in the foreground is a 12 pounder, Rifled Breech Loader and was used during the South African Campaign.



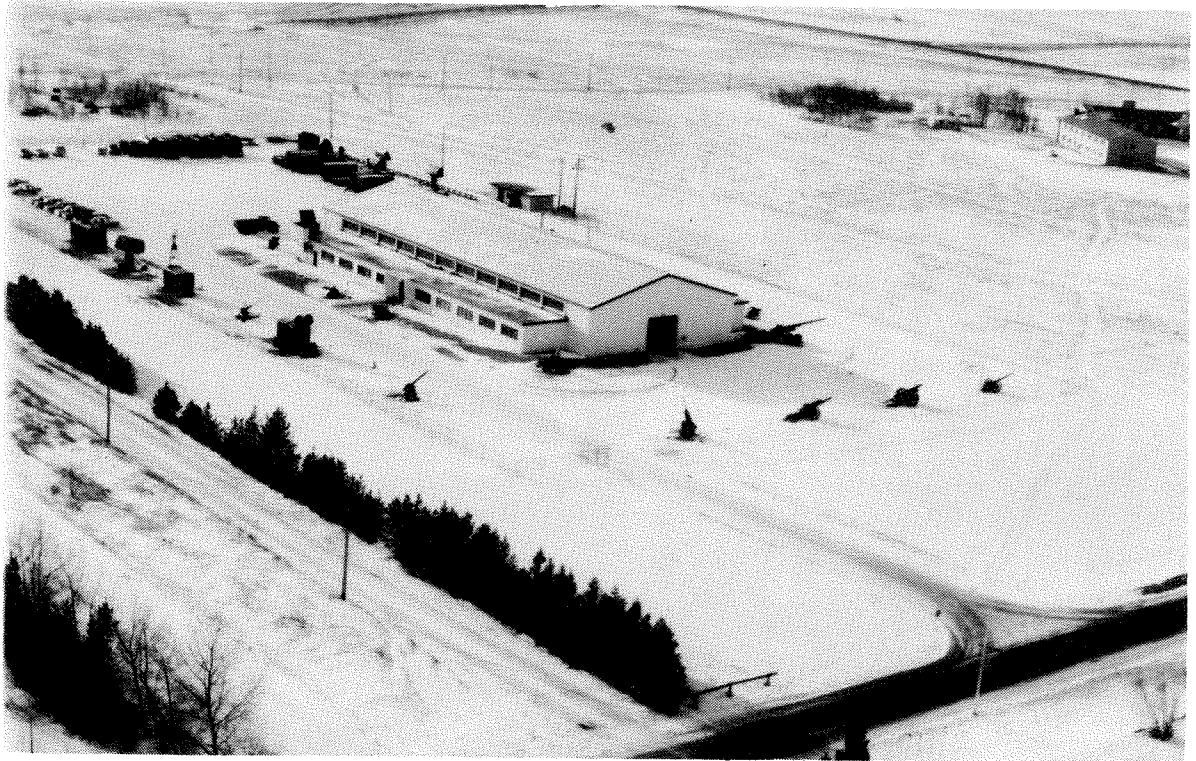
The gun in the background is the French 75mm of World War I fame, and the one in the foreground is a 1 pounder, which was used by the Boers in South Africa and was later built by Vickers-Maxim for the Royal Artillery. On his retirement Major General TB Strange, the father of Canadian Artillery, became an agent for Vickers-Maxim and is no doubt responsible for this particular gun coming to Canada.



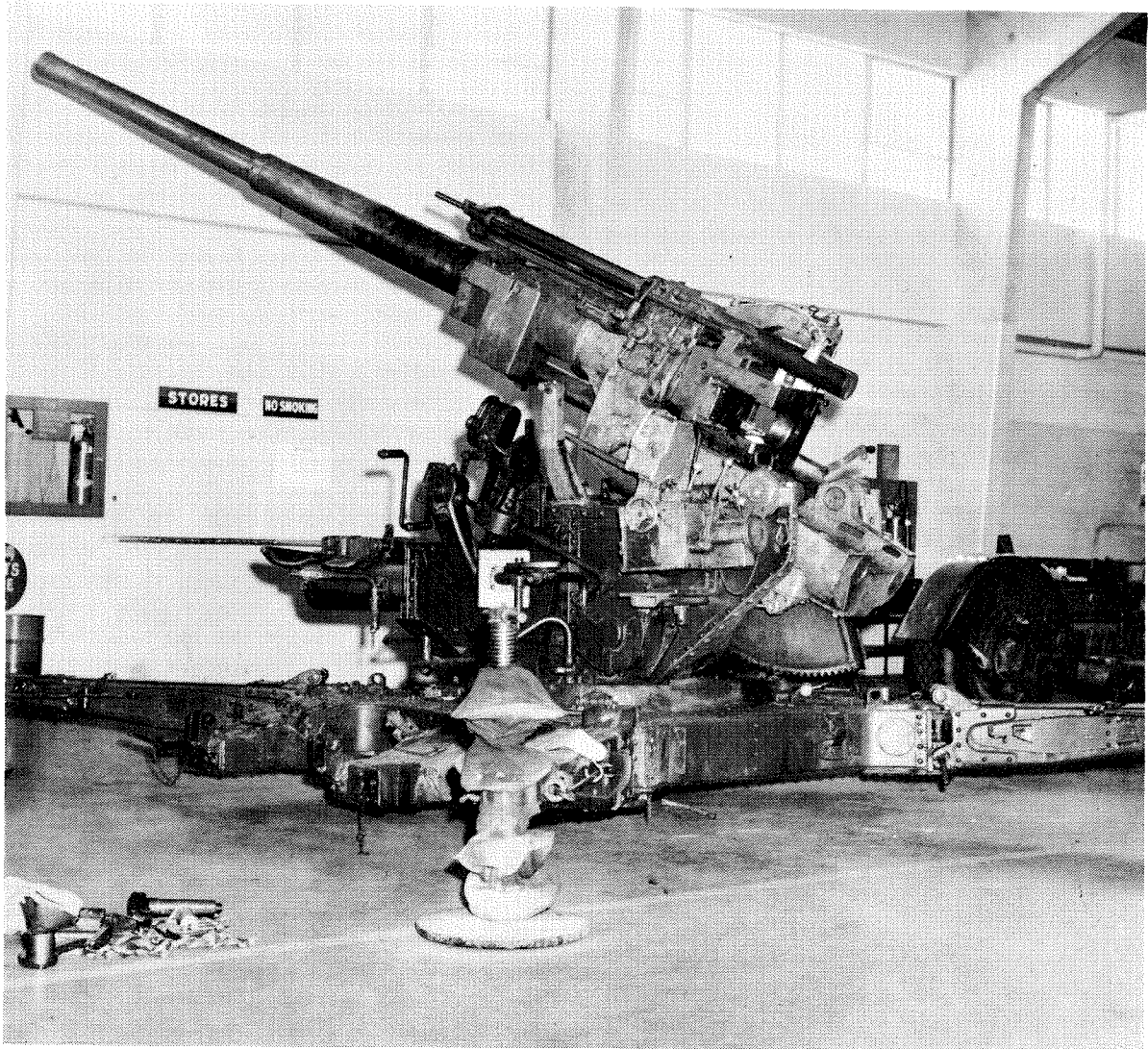
Part of the ammunition display, with a World War I, 4.5 inch Howitzer in the background. In addition to this ammunition display there are two show cases filled with projectiles and fuzes.



From left to right; a 4.5 inch Howitzer, a 4.2 inch Mortar and a Canadian designed and built 120mm Impalla Mortar circa 1945.



Part of the collection of 21 guns and radars which have been restored and are located around the perimeter of the Gun Park.



A 3.7 in Anti-Aircraft Gun, the MUSEUM'S latest acquisition, in the process of being refurbished.

There are many more displays in addition to the ones shown in the photographs including guns, ammunition, artillery instruments, small arms, photographs and documents.

Among the more notable of these are such items as the original plate with which "In Flanders Fields", by Lieutenant Colonel John McCrae, was printed in "Punch"; part of a casualty list written on a piece of birch bark by Louis Riel and the personal diary of Major General HA Panet, which he kept during the South African Campaign.

The museum library contains many old and interesting historical volumes, maps and documents along with the war diaries of all the Canadian Artillery units which served in World War II and Korea as well as many Regimental Histories.

The growth of the museum is dependent on the interest shown by all members of the Regiment who take the time to help locate and collect the items which preserve the history of the Royal Regiment of Canadian Artillery. When such items are discovered they should be sent to the RCA Museum or their location and description sent to the curator.

1st LOCATING BATTERY RCA

Lt WR Johnston

On 23 April 1965, the Minister of National Defence authorized the formation of the 1st Locating Battery RCA as a unit of the Field Force, thus opening a new chapter in the history of locating in the Canadian Army.

Target acquisition, as a recognized "science" in Canada, dates from World War I, although it is now almost exactly a century since the first embryonic locating units appeared on the battlefield. Prior to the 1860's, target acquisition was a relatively simple art since, due to the limitations of the weapon systems available, engagements took place at close range. However, during the American Civil War, the many advances in technology which accompanied the Industrial Revolution began to make themselves felt. Chief among these was the vast increase in range, accuracy and fire power, which resulted from the introduction of rifled breech loading weapons. In particular, the appearance of the machine gun spelt the end of unarmoured deployment in the open as a viable tactical procedure, and forced the artillery to retire from their traditional advanced positions. At the same time the increased capabilities of their weapons enabled the Gunners to deploy under cover and to engage at longer ranges using indirect fire.

These new gunnery procedures required the development of new methods, first to acquire the target, and secondly to relate the position of the gun to the target in order that it could be effectively engaged even when visual surveillance was impossible. These tasks in essence remain the function of the Locating Battery today; although the vast improvements in mobility, communications and weapon system capabilities have greatly increased the complexity of the problem.

During the American Civil War, rudimentary sound ranging and flash spotting groups saw action; the latter employing, on occasion, observation balloons. However, it was not until World War I, that formally constituted survey and target acquisition elements appeared in the order of battle.

Under the static conditions of the Western Front, control of counter bombardment was centralized at Corps level. Within the Canadian Corps, the Counter Battery Staff by 1918 consisted of a Lieutenant Colonel, Corps Counter Battery Staff Officer and two Staff Captains responsible respectively for operations and intelligence. While on occasion, responsibility for Counter Bombardment

was decentralized to Divisions for specific operations, no attempt was made to establish a permanent staff at that level. Under control of the Corps Counter Battery Office were independent Survey, Observation and Sound Ranging Sections.

Initially, responsibility for Flash Spotting was assigned to the Corps Survey Section. This, however, was found to be unworkable and, in addition to the Survey Section of four officers and 162 other ranks, an Observation Section of one officer and 88 other ranks was formed to carry out flash spotting duties. These sections, together with a number of Sound Ranging sections, each consisting of a listening post, command post, and what would today be classed as a short base, constituted the Corps locating resources. Under ideal conditions, a maximum accuracy of five yards by flash spotting and thirty-five yards by sound ranging could be achieved. These units were concerned chiefly, in addition to survey, with the acquisition of Artillery Intelligence and even in this restricted field extensive use was made of other agencies including artillery and infantry OP's as well as observation balloons and aircraft. By 1918 the value of observation balloons had greatly decreased due to their vulnerability. However, in that year approximately 35% of all CB intelligence was obtained from aircraft and air photographs. While the locating units did provide a minor source of tactical intelligence, this was limited to what could be observed by their OP's using visual methods.

With the reversion to restricted peacetime establishments after the Armistice, no locating units remained in the order of battle in either Britain or Canada, and consequently locating both in terms of equipment and techniques remained virtually stagnant at the 1918 level. It was not until 1934 that a Survey Company RA was formed in Britain consisting of Sound Ranging and Flash Spotting Groups (later troops) and two Survey sections, with a strength of seventeen officers and one hundred forty-one other ranks. Tactically, this remained a Corps unit responsible to the CCRA through the Corps Counter Battery Staff Officer, detailed deployment being the responsibility of the Battery Commander. This organization was adopted by Canada and in 1938 the 2nd Survey Regiment was formed in Montreal, as a unit of the Non-Permanent Active Militia using the establishment of the Survey Company RA. Subsequently, this unit was redesignated 1st Survey Regt RCA.

1st Survey Regiment mobilized in 1939 and went overseas by sub-units between January and December 1940. When all elements of the regiment were finally reunited near Dorking in April 1941, the unit consisted of a headquarters and survey, flash spotting and sound ranging

batteries. The regiment's early service in England was marked by numerous upheavals which eventually produced an organization consisting of a sound ranging battery, four survey batteries and a meteorological section. During these reorganizations several trials were conducted to determine the feasibility of employing a Survey Battery under Divisional control. These trials were the first attempt to constitute formally a divisional locating battery.

In October 1943, the expansion of the Canadian Army necessitated the formation of a second survey regiment. This was accomplished by splitting 1st Survey Regiment to form two regiments each consisting of a headquarters battery and two identical composite batteries. Each composite battery contained a flash spotting troop, sound ranging troop and a survey troop and was intended to meet the survey and locating requirements of a division. The headquarters battery, in addition to administrative elements, contained a survey troop and a meteorological section. This establishment, with minor amendments remained in effect for the remainder of the war.

Another reorganization in the locating field resulted from the extensive use of mortars by the enemy. It was found during operations in Italy that the Counter Bombardment Staff at Corps level was unable to react with sufficient speed due to the high mobility of this type of weapon. Under the urging of Brig E C Plow, CCRA 1 Canadian Corps, Divisional Counter Mortar Staffs were formed in 1944. These staffs were originally established on an *ad hoc* basis and consisted of one or two officers and a small party of other ranks, usually being personnel with some locating or survey training. Their chief function was to arrange for rapid retaliation against active mortars using Divisional resources. This procedure proved successful and Divisional Counter Mortar Staffs were formed in all Canadian divisions, initially within the Support Battalion but later as part of HQRA.

In the equipment field there were few radical improvements until, in the summer of 1944, trials of the Radar AA No 3 in the counter-mortar role were carried out around Caen. The success of these trials resulted in the formation of a Radar Battery RCA which, for ease of maintenance, remained under Army Control.

At the close of the war all locating units were demobilized; 1st and 2nd Survey Regiments being incorporated in the Militia. It was not until 1954 that a locating unit reappeared in the order of battle of the Regular Force with the formation in Camp Shilo of the 1st Divisional Locating Battery RCA. This unit was also the first formally

constituted divisional locating unit in the Canadian Army. Initially, the battery consisted of a survey section and a sound ranging troop but the organization was soon altered to include a corps survey section and a CB staff troop. Later a radar troop and technical repair section were added. During its short life (1954-58), 1 Div Loc Bty participated in numerous exercises and established an enviable record.

In 1958, with the general reorganization of close support artillery, it was decided to decentralize locating units to Brigade Group level, organic locating batteries being formed in each field regiment in Canada. These consisted of a battery headquarters including CB staff, survey troop, sound ranging troop, radar troop and meteorological and nuclear warfare troop. This organization remained in effect until, in 1965, the decision to reform an independent locating battery resulted in the formation of 1 Loc Bty RCA. Also, in 1965, the reorganization of the Militia resulted in the disbandment of 1st and 2nd Survey Regiments leaving 1 Loc Bty as the only locating unit in the order of battle of the Canadian Army.

1 Loc Bty, while a direct descendant of the Counter Battery units of the Canadian Corps of World War I and the composite batteries of World War II, is the first locating unit to reflect in its establishment and equipment the revolutionary changes in the battlefield which have resulted from the introduction of nuclear weapons.

The organization of 1 Loc Bty RCA, as illustrated in Figure 1, consists of:

- a. Battery Headquarters, which contains in addition to the administrative elements, a small Command Post staff, but no CB staff, this being included in the establishment of HQ RCA.
- b. Survey Troop, consisting of two Brigade Sections each capable of fulfilling the normal survey requirements of a Brigade Group, and one Divisional Section responsible for survey, of the locating devices and for assistance to the Brigade Sections as required.
- c. Sound Ranging Troop which will, with the introduction of equipment now under development, be capable of deploying one short or long base but which is restricted for the present to one short base.
- d. Radar Troop equipped with six AN/MPQ 501 Counter Mortar Radars on the M113A1 chassis.
- e. Meteorological Troop consisting of two optical sections and one electronic section

the latter to be equipped with the GMD-2B Rawensonde.

- f. Two Drone Troops equipped with the CL89 Short Range Reconnaissance Drone.

While the capabilities of survey, sound ranging and meteorological troops will be considerably greater than in the past, the most significant changes lie in the radar and drone troops.

For the first time, a Canadian locating unit will be equipped with a counter mortar radar specifically designed for this task. The MPQ501 radar in addition to its mortar location capability has a good capability for survey, observation and adjustment of fire, and for general battlefield surveillance. These capabilities, coupled with the mobility and armoured protection afforded by the M113 chassis, will enable rapid deployment in the forward area thus greatly increasing the support which the locating battery can provide to the remainder of the formation.

At first glance, the drone troops may appear to be a radical departure from previous artillery target acquisition equipment. They are, however, the logical successors to the methods of aerial observation which have always provided a significant proportion of the CB intelligence. With the advances in technology which have permitted the elimination of the human operator for this type of equipment, it has reverted to control of the user who is in direct contact with the means of engaging targets located.

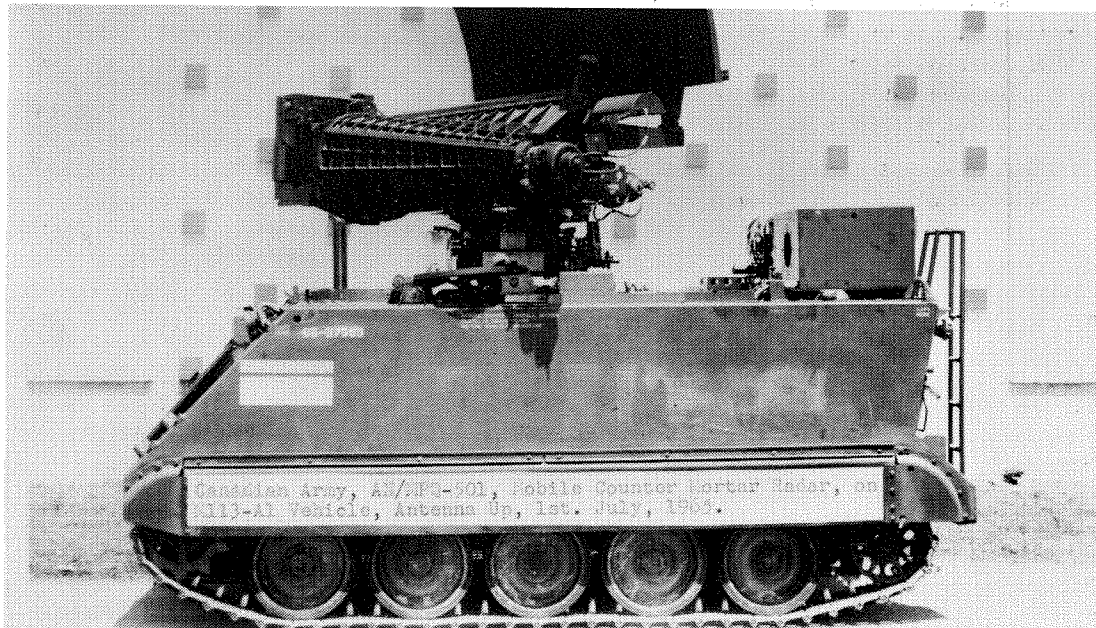
The radar and drone troops provide the battery and the supported formation with a primary source of high grade tactical intelligence beyond

the artillery intelligence which has previously been provided by locating units. The development of techniques to ensure maximum effectiveness in the employment of its increased capabilities will be a primary objective during the formation and training of 1 Loc Bty.

The first personnel of 1 Loc Bty reported to Fort Osborne Barracks in mid June 1965 to begin the task of forming the unit. Since that time the battery has been employed in acquiring stores and in assimilating the personnel who have been posted from all other regular units of the RCA and from a variety of ERE appointments. By mid September, a strength of 140 all ranks had been reached.

A unit which, while not a part of 1 Loc Bty, is intimately associated with it, is the CL89 Trials Troop which was formed at Yuma Proving Ground, Arizona in May 1965 under command of Captain EH Martin, CD. This unit is employed in support of engineering trials of the CL89 Drone System and is jointly staffed by Britain and Canada. The 26 Canadian personnel of the unit are held against Drone Troop vacancies of 1 Loc Bty and on completion of engineering trials will join the battery in preparation for user trials to be conducted in Canada.

It is hoped that by the spring of 1966 the equipment and training of 1 Loc Bty will be sufficiently advanced to enable elements of the battery to participate in summer concentrations. Meanwhile, the battery is actively engaged in refresher training and in preparation for the receipt of the variety of new equipments scheduled for delivery in the near future.



CEREMONIAL

During the course of the training year the unit fired sixteen salutes to mark important events and visits by noted personalities.

One occasion was the firing of a salute during the raising of the new Canadian flag over the Legislative Buildings at Edmonton, on the 15th of February, 1965.

UNIT MATTERS

We welcomed Major Lynch-Staunton on his being transferred to the unit from the now disbanded 19th Alberta Dragoons on the transfer of Captain Z Epler, a former Battery Commander, to his position as Chief Instructor of the 180/20 Field Regiment Cadet Corps.

In addition several other officers and senior NCO's also came into the unit upon the disbandment of the 19th Alberta Dragoons.

During the stand down season the unit was advised that a twenty-piece pipe band had been authorized.

SUMMARY OF UNIT ACTIVITIES

20th Field Regiment RCA(M)

September 1964 to August 1965

TRAINING HIGHLIGHTS

Under the recent reorganization of the Militia, the 20th Medium Regiment was redesignated the 20th Field Regiment. A troop of the 95th Battery, which was located at Beaumont, a small farming community fifteen miles out of Edmonton, was re-absorbed into the regiment in Edmonton. 95th Battery was then designated the Cadre Training Battery for the regiment. The other major revision was the addition to the regimental strength of the 78th Battery located in Red Deer which had formerly been a part of the artillery unit located in Calgary.

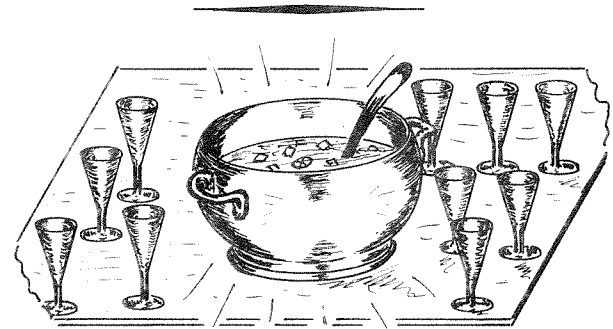
Members of the unit welcomed the changes introduced by the new MTI as, during local headquarters annual training, we succeeded in graduating five platoons of recruits and trained militiamen for all militia units quartered at the Prince of Wales Armouries. The unit also conducted Gun Number, Detachment Commander, TARA, Signals, Driver and Officers' Refresher Courses during the year.

SUMMER CAMP

Over one hundred members of the regiment were able to participate in the annual summer camp at Camp Wainwright during the first week of July. The unit, under canvas, was joined by personnel from Lethbridge, Vancouver, and Montreal artillery regiments, and, assisted by members of 3 RCHA, acquired some new field techniques.

SOCIAL FUNCTIONS

A 20th Field Regiment Officers' Mess was instituted with the acquisition of additional space in the armouries. A highlight of the year was a cocktail party honouring Colonel EW Cormack, OBE, CD, Honourary Colonel of the Regiment, and which featured the presentation of his portrait, done in oils, by a well known Canadian painter. We were honoured at our annual Mess Dinner by the presence of the GOC Western Command, Major General Rockingham, CB, CBE, DSO, ED, CD.



RECIPE FOR ARTILLERY PUNCH

- 1 Quart Strong Black Tea
- 1 Quart Rye Whisky
- 1 Bottle Red Wine
- 1 Pint Jamaica Rum
- ½ Pint Dry Gin
- ½ Pint Brandy
- 1 Jigger Benedictine
- 1 Pint Orange Juice
- ½ Pint Lemon Juice

Combine all ingredients in a large punch bowl with a block of ice. If found too dry, Sugar Syrup may be added. Decorate with twists of Lemon Peel.

Makes 25 to 30 cups

NEW ORIENTATION AND FIX

Anon

As he paused at the foot of the great broad steps that lead up to the expressionless grey pile on the capital's Elgin Street, he reflected that nothing could be more changeless. There was an augustness and permanence, Klyno told himself, about Army Headquarters, that approached even that of the great Aztec burial mound at Watapulthru.

It had been only a few short years since he had last descended those steps. A few short years since his retirement from a varied, but satisfying career of regimental and staff appointments. Perhaps not always satisfying to everyone, but at least the director had made some very gracious remarks at the mugging-out, and on the whole, that final Happy Hour had been one of undiluted good will.

Klyno had gone off immediately to a small property in Mexico, left to him by an eccentric but exotic old aunt, and had wallowed since then in a life of sunshine, fishing and small garden chores. Still, it was good to be back. A man lost touch. He wondered whom he would find at his old desk. He wondered, in fact, where he would find the old desk, as the directorate had always been wont to move around Ottawa like a floating crap game.

"D ARTY?" repeated the commissionaire at the Information Desk, "Well, let's see now." A directory was studied with ponderous solemnity. "Um-m-m-m. Ah Yes. Here he is, listed at Room 5334, B Building."

Klyno couldn't suppress the surge of nostalgia and anticipation as he hurried along the narrow green corridors, his blue tie with the red zig-zag tumbling from the front of his blazer, a tuneless rendition of, "The Screw Guns" escaping from pursed lips. Coming to an intersection where an arrow indicated Rooms 5330 to 5350, he turned right and soon found himself in front of a door which, according to an adjacent white cardboard sign, was the entrance to the office of a Commodore D Artie.

Although, he had never been marked for high command, an oversight which Klyno never had been able to understand, it was an undeniable fact that he had always been a fast man with a deduction, and, in this instance, the nature of the commissionaire's error was immediately apparent. However, rather than hike the several furlongs back to the Information Desk, perhaps he could get directions from the commodore. He knocked and entered.

The commodore had never heard of D Arty, admission of which promptly placed him in bad odour with his visitor who heretofore had taken it for granted that the name was known and feared by all who took the Queen's Shilling. However, he was a friendly individual, if somewhat unlearned, and he cheerfully undertook to make telephone enquiries. The enquiries, as it turned out, proved surprisingly fruitless, and Klyno's feelings switched from surprise to exasperation at the point where the commodore, speaking into the telephone, was heard to say, "Well, their main concern I suppose would be gunnery. — No, not gonnor — Yes, G-U-N-N-E-R-Y."

Eventually, the commodore was forced to concede defeat, but as a parting inspiration suggested the Directorate of Trajectorial Warfare as a possible repository of Klyno's former interests and friends.

The grey concrete stairwells and the long green corridors had remained unchanged over the years. Even most of the faces that he passed seemed vaguely familiar. Only the names had been changed, reflected Klyno, "to protect the innocent". In due course, in a mood of cautious optimism, he arrived at DTW.

To make contact with the Director of Trajectorial Warfare, it was necessary to pass through the office of his chief subordinate, a Commander Finnegan, and not many had ever been known to pass the barrier. Klyno was not to pass it. In any event there was no need to, as a brief conversation with Finnegan soon made it abundantly obvious that D Traj Warfare and D Arty were of two quite different worlds. The commander carefully stroked a beard of spikey copper wire, apparently to reinforce the mental effort required to determine just where Klyno should be directed, then suddenly brightened.

"Directorate of Ballistic Devices", he barked, "Noticed a number of pongoes down there. Probably friends of yours. Expect they've simply changed the name of their directorate and submerged until this integration storm blows over. Hang on".

Running his finger down a copy of the departmental directory, he eventually found his quarry and barked again, "Cabin 4220. Down the first companionway. Starboard turn immediately after passing the ladies' heads, then dead ahead. You'll see the name on the bulkhead".

Barely suppressing an "Aye, aye sir", which unexpectedly leapt to the tip of his tongue,

Klyno noticed that the commander had already immersed himself in a very nautical looking chart, and withdrew once more to the passageway.

A thin, white faced youth, hurrying along with shoulders hunched from the effort of balancing several cups of coffee, provided more usable directions to DBD.

Here again, Klyno was to taste the bitterness of disappointment. Passing through a room filled with draughtsmen bending over their boards in various attitudes of preoccupation, simulated or otherwise, he found in an inner office a young and helpful-looking major. Klyno's eye took in the Staff College tie clip bearing the numerals of the previous year. The major, it turned out, had heard of D Arty, but it had really been before his time, and he supposed that the functions would now come under COBRA. On that assumption, if he were Klyno, he would try either ASH or DDT. Use of the telephone soon proved the major's assumption to be faulty, and Klyno experienced the feeling of despair and loneliness, not new to him, of one who returns to the familiar gun position only to find that the guns have been moved, during his absence, to a new location. Or perhaps, it was all just a great practical joke between the commissionaire at the Information Desk, Commodore Artie, Finnegan and all of them, and they were simply passing him along, up and down the corridors like an unwanted file, while D Arty quietly went about its business, in some nearby suite of offices, oblivious of Klyno's quest. This thought died at birth however, as he surveyed the keen, dedicated look of the young major with the new Staff College tie clip, and recalled the humourless salt-caked personality of Commander Finnegan.

The major produced coffee and called in a confrere who knew immediately where Klyno should pursue his enquiries. "*Fire Control Section of the Plans and Projects Division of DEBUS*", stated Klyno's latest adviser, obviously an old and authoritative Ottawa Hand. "*They took over from NOGAS, which was an interim organization, which phased in the amalgamation of the arms directorates under PTMT. Some of the old directorate staff stayed on for a while, but I daresay they've all gone by now*".

Accepting this tip with the air of a man who has just been told that a vehicle with the tac sign of the missing unit was seen speeding West about an hour ago, Klyno obtained directions and took up the chase.

FCS of PPD of DEBUS was found in less than an hour, comfortably ensconced in rented space above a body shop, conveniently close to a main bus line. Klyno was encouraged by the atmosphere of calmness and independence which he sensed immediately upon entering and which, he recalled, had always marked those sections and directorates which were deployed around town away from the main headquarters buildings. This was more like the old directorate; a quiet, cheerful atmosphere in which it was possible to think of the Army as a body of actual people with friendly faces and familiar names, rather than an amorphous estate existing mainly for the justification of policy co-ordination, directives and returns. He looked around hopefully for a familiar face. There was none. He looked for a familiar sign. There was none. He looked for encouragement. None. He looked lost.

The Fire Control Section of PPD of DEBUS, Klyno learned, was currently engaged in a project which included the standardization of fire fighting drills and the production of a set of standardized abbreviations for inclusion in a new Fire Fighters' Manual which was to be in the hands of the Queen's Printer no later than next Friday. No, they couldn't imagine why anybody should think that they had ever had anything to do with artillery. Wouldn't know what to suggest. Had he tried TRAMP? Klyno suddenly felt old and very tired.

As he turned to go, a cool young agent provocateur, whose desk was within listening range of the conversation, and whom Klyno had silently labelled "*Miss Smokey Bear of 65*", put her chewing gum into neutral long enough to suggest that maybe he should try Veterans' Affairs.

As he fishes from the banks of the Catapulto, near the great Aztec burial mound of Watapulthru, Klyno reflects contentedly on a quarter of a century of faithful service, on a life of ups and downs, of soft berths and hard berths, and on a final Happy Hour when the director had pumped his hand and insisted that "*.....whenever you come to Ottawa, be sure to look us up*".

He recalls the halcyon days, the days of great decisions, when crises over swagger stick dimensions and calling card format kept the paper moving, the URGENT flags flying and the baskets full. Despite an arthritic twinge, he smiles an inscrutable smile as he shifts position to remain in the shade of a favourite orange tree.



HQ RCA SGTS' MESS

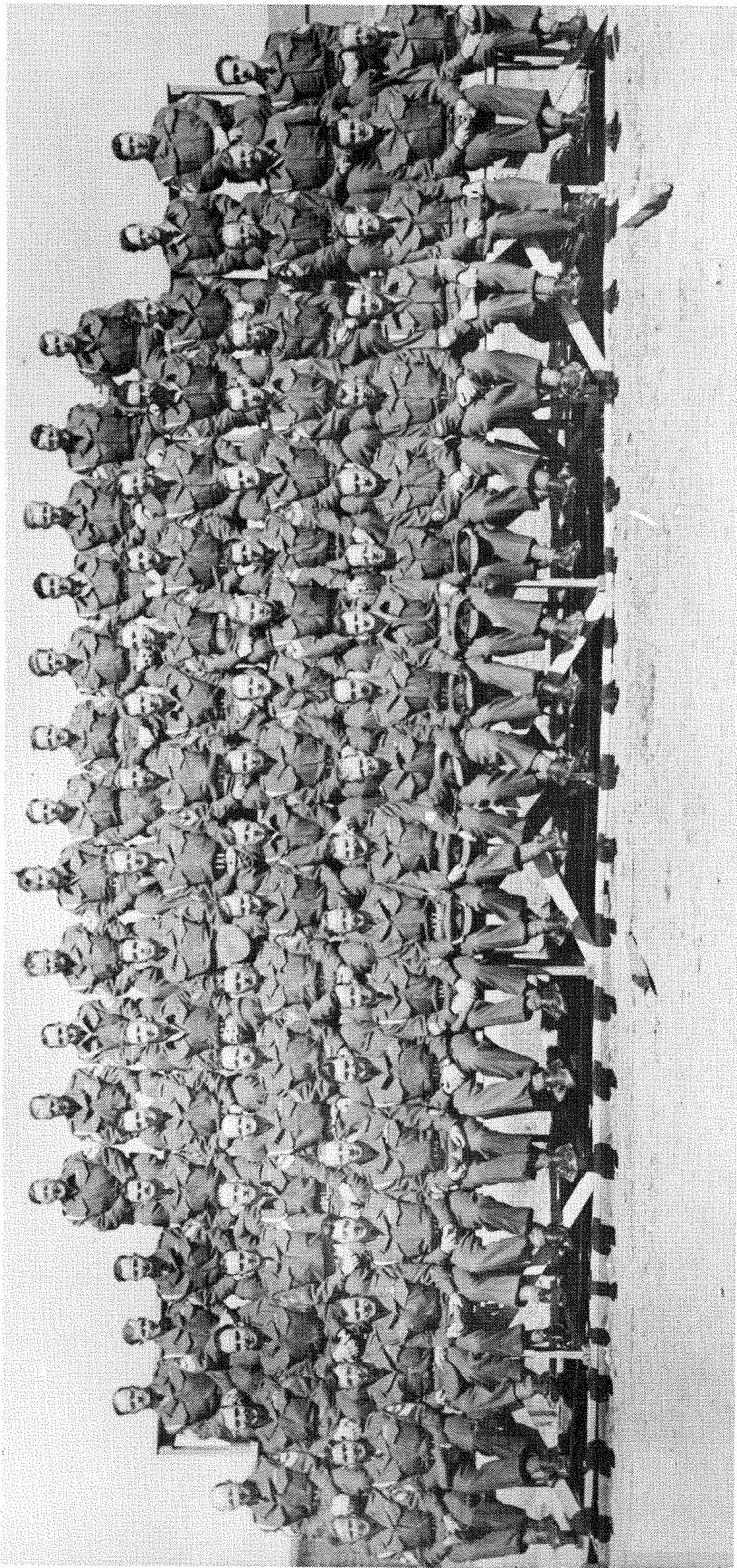
Bringing a mess building and its appointments to the high standard that everybody would like to see is always a difficult and unenviable task. Working on a self-help basis as funds become available, this task has been assumed by the members now stationed at the Home Mess in Camp Shilo.

Two of the projects designed to enhance the appearance of the foyer have been completed. Relying on the resourcefulness of Gun Park personnel, a large bookcase has been built in the alcove between the foyer and the bar. Mahogany panelling has greatly enriched the appearance of the foyer, and folding doors of the same material separate the foyer from the bar and games area.

Mess trophies are displayed in a new cabinet which serves as a focal point for the foyer, and end tables and lamps of appropriate design have been installed.

A large oil painting provides a final touch to the refurbished foyer: the scene, *Maritime Lake*, was painted by Sgt WD Christie. The Mess owes much to him and to QMS(WO2) DG Miller, the PMC, who during this period were primarily responsible for the initiative, design and labour required to complete this project.

While the renovation of the foyer was in progress, other members were busily constructing permanent outdoor Christmas decorations. Traditional and colourful in design, they inject more than a little warmth into the bleak prairie night. The next major project, about to be launched, will be the installation of beamed ceilings and panelled walls in the lounge and dining areas, an undertaking which, when completed, should result in a major transformation in the appearance of the interior of the Mess.

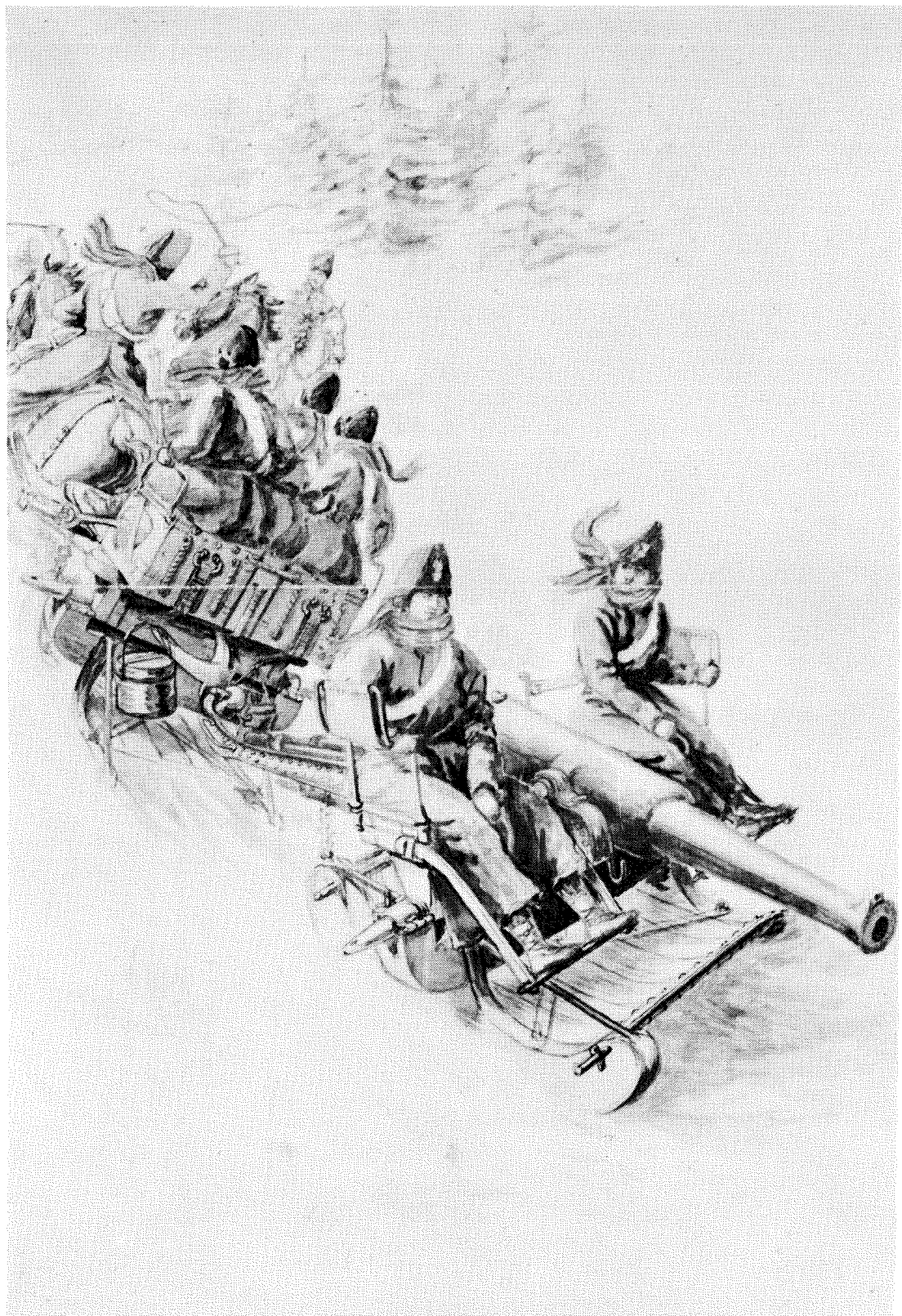


WHERE ARE THEY NOW?

RCA SGTS' MESS

April 1949

- Back Row - Sgt Phillips GA, Sgt Collinge TW, Sgt Crookes AW, Sgt Benstead GE, Sgt Wilson JR, Sgt Conway C, Sgt Gray RD, Sgt Winters PA, Sgt (IG) Watts T, Sgt Lund AN, Sgt Greenwood JR, S/Sgt Cork RS
- Third Row - Sgt Peryer SV, Sgt Mitchell R, Sgt (IG) LeMaire, Sgt Nixon CE, Sgt Seeley HR, Sgt Barton JS, Sgt Richardson RM, Sgt Seville HR, Sgt Miller DG (MM), Sgt Screation WA, Sgt Card RF, Sgt Vallee LJ (MM), Sgt Turner AA, Sgt Cockburn LP, Sgt Farewell AE, Sgt Anderson GA (BEM), Sgt Done WJ
- Second Row - BQMS Elliott, CB, S/Sgt Parker J, S/Sgt Sedger C, S/Sgt Passmore JW, Sgt Randall CW, Sgt Bargh H, Sgt Ross LA, Sgt (G) Fairbairn NM, Sgt (IG) Jordan DW, Sgt Macfie JM, Sgt Stewart GM, Sgt (AI) Howie AK, Sgt (AI) Wood HM, Sgt Welsh HW, Sgt (IG) Shawcross RT, Sgt Smith J, Sgt Kenler AL, S/Sgt Hill W, S/Sgt Lewis SM, BQMS Thrasher FL
- Front Row - S/Sgt (IG) Wright NA, BQMS Cumming JR, RQMS Weir J, BSM Patterson GA, QMS Bruce RJH, BSM (IG) Armishaw RV, RQMS Nicholls R, BSM (IG) Seed PS, ASM Lawson R, RSM ER James (MBE), Lt-Col JWD Symons, RSM WT Seed, Mr Gnr AG Ford, Bdmr Tidman H, BSM Williams CMS, BSM Chalmers G (MM), BSM (IG) Casey AJ, BSM Addis PJ, BSM Hardon WH, BSM McFarlane K



*B Battery, Royal Canadian Field Artillery on Winter Manoeuvres 1889
— Watercolour by Maj-Gen RW Rutherford*

SLEIGHS AND SKIS FOR GUNS

Lt JD Chown, CD

Under the title "*Gunners on Sleighs*", the Gunner Bulletin Vol 1, No 2, published an extract from the "*Manual of Field Artillery Exercises 1861 PT X: Remarks on Sleigh Carriages in the Service of Artillery*". This article immediately brought to mind a picture of guns gliding smoothly across the snow; a vision of winter mobility which has struck the imagination of Gunners in Canada for over a hundred and fifty years.

During the seventeenth and eighteenth centuries, nearly every fort in Canada was equipped with small guns. These were used primarily as signal guns and for defence of the fort, and were normally transported in flat bottomed boats during the summer months, although some were not so large as to prevent them being man-packed if necessary. During this period, winter campaigns were largely limited to the "*petite guerre*" fought with small groups of fast moving, lightly armed men. Phipps used field guns at Quebec but these were essentially for siege purposes. Frontenac in 1696, in his punitive raid against the Onondaga and Onieda Indians was probably the first to use artillery in an offensive field role in Canada. La Salle is known to have carried a small gun during his travels on the Mississippi, although he appears to have used it only in defence of his various forts.

Undoubtedly, at some time it was necessary to move guns during the winter, and in all probability sleighs or toboggans were used. These were, however, an expedient method of transport and not a carriage as such. The first record of sleigh carriages appears in 1812 in a letter from David Thompson (the Explorer and Geographer) to the Commander Royal Engineers in the Canadas. Thompson was at this time an Ensign in the Sedentary Militia of Lower Canada and had apparently been asked to design a method of moving guns when horses were not available.

In his letter Thompson makes mention of a "*frame for the conveyance of guns by the strength of men where horses cannot be procured*". He sent a model with the letter which he specified for the 9 pdr gun. He also provided a table giving data for the construction of frames for guns up to 24 pdrs. There is nothing in the letter that specifies that the frame was designed for winter use except the last paragraph which seems to have been added as an after-thought. This recommends that men pulling these should be equipped with "*bear-paw snowshoes*". This letter is now held by the National

Archives, Ottawa, but unfortunately the model and tables have not been located.

The Artillerists manual and Soldiers' Compendium 1854 allocates several pages to the subject. This is the sixth edition, and includes sleighs under Alterations and Additions. Earlier editions were not available for examination. The 1856 edition shows no changes from that of 1854 which follows in full.

Sleighs *Sleighs are used for the conveyance of artillery during the winter in Canada. The sleigh consists of a platform six feet ten inches wide, placed on runners sixteen inches high; upon this rest two strong transoms, to which the brackets supporting the gun are secured. A box, distinct from the ammunition boxes, is placed on each side of the gun, together capable of containing about thirty rounds of ammunition, and which serve as seats for Nos 1 and 6. These boxes usually contain the shot, and small stores carried in the axletree boxes, as well as long reins for driving when in single draught. The extreme breadth of the runners is three feet.*

Marching order *In marching order, the following stores and entrenching tools are on the gun sleighs; two fitting ropes, one spare swingle tree; swords for Nos 1 and 6 on front platform under breast of gun, claw hammer, wrench, and pincers; in sockets, two portfire sticks on right rear of platform.*

On No 1 Ammunition Sleigh *Two fitting ropes, prolonge, two spare swingle trees, and the sword of No 3, on front part of platform; carbines of Nos 1 and 6 on front box; spare sponge and worm on platform right of boxes; spare handspike on left side; 4 spare traces between front and rear boxes; swords of Nos 4 and 5 on platform in rear of boxes, covered by knapsacks of Nos 1, 6, 5 and 4. The knapsacks are strapped from off handle of off box to rear handle of rear box.*

On No 2 Sleigh *Felling axes, and two kettles, on front of platform; sword of No 2 on front box; pick axe in rear of front box; four spades strapped to front of rear boxes, four water buckets strapped to guard irons of front box, two at each side; swords of Nos 7 and 8 in rear of boxes, covered by knapsacks of Nos 2, 3, 7 and 8.*

The following footnotes are appended to the page:

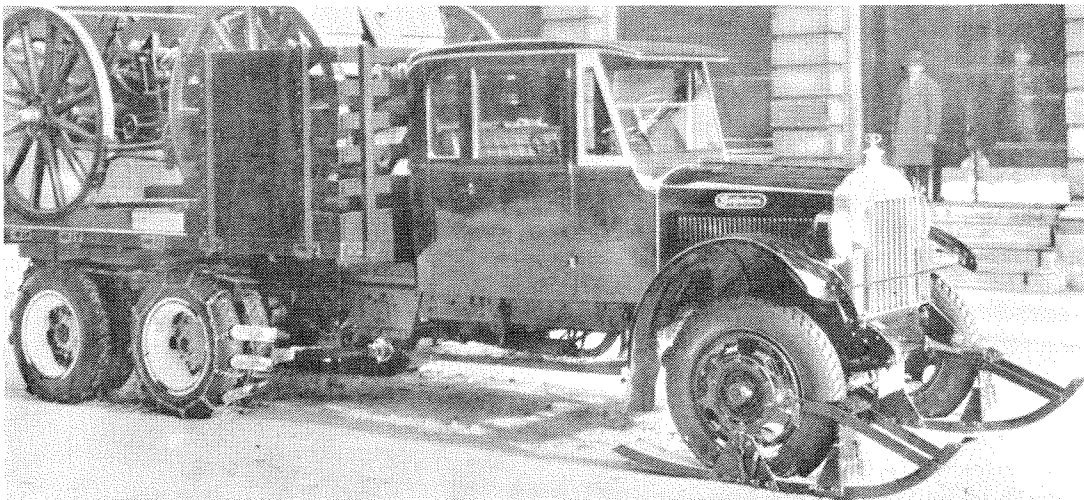
The recoil of guns on sleighs varies from



Officers and NCO's Royal Artillery, Hochelaga, 1868



12 pr RBL guns on skids 1910 at Tete du Pont Barracks (now Fort Frontenac) Kingston, Ont. The wooden building in background has been replaced by a stone structure containing Staff College class-rooms.



Cotfredson six-wheeler showing ski attachment on front wheels

four to five feet, when on rough ground or in deep snow, to twenty or thirty yards when on glare ice. In the latter case, it is of course necessary to send the ammunition sleighs further to the rear; but the recoil may be considerably lessened by placing a small chain round each of the runners.

Ice of eight inches thick will bear, with safety, a weight of 1115 lbs (or nearly half a ton) on the square foot.

The 1861 Manual varies with the Compendium primarily in the addition of drills and handling instructions. Neither of these specify a gun for which this particular sleigh was used; it is assumed that use was intended for field artillery only and probably only nine pounders or less.

A photograph published in the Canadian Defence Quarterly shows the Officers and NCOs of K Bty RHA at Hochelaga in 1868. The gun shown in this picture is the 9 pdr 6 cwt RBL (Armstrong) and a comparative measurement between the gun and sleigh indicates the sleigh measurements are approximately those shown in the Compendium.

It was in 1871 that the permanent Canadian batteries were formed. Lt Col Strange (after whom Strange Hall in Camp Shilo has been named) in command of B Bty during the formative years, made great use of man-towed sleighs for winter training and often fired off the ice of the St Charles River. He is said to have frequently used the frozen Montmorency Falls as a toboggan slide. The RCA Officers' Mess in Shilo has in its possession an etching by SP Hall — sometime Veterinary Surgeon B Bty — which is entitled "The Dominion Forces B Battery CA on the March" which is dated 1879. This picture shows a Compendium sleigh equipped with the RML 9 pdr 8 cwt.

During the Northwest Rebellion, great difficulty was experienced in the movement of guns from Kingston through the unfinished gaps in the railway along the northern shore of Lake Superior, and later through to Touchwood Hills of Manitoba. The lack of sleighs was probably due to the urgency of the situation, although A Bty at Kingston did not appear to have used sleigh equipments at that time.

In 1875 Lt Col Strange had produced a manual for the Militia Artillery of Canada which embodied all the essentials for use of 9 pdr RML. The sections of this book covering sleighs is perhaps the most comprehensive written in that it embodies the whole of the contents of the 1854 Compendium, the 1861 Manual and several minor points covering the use of long lines, and stirrup wrappings. The greatest change is contained in the following paragraph.

In the province of Ontario, where the snow is not generally deep and the tracks are double, (Editor's Note: This allows double draught) and would perhaps admit of the gun axle being carried across the sleigh, a bob sleigh might be improvised to carry the gun on it's carriage and the limber and wheels on the fore part, the two parts of the sleigh being connected by the trail eye and limber hook. This system would admit of a change to wheels if necessary.

This paragraph is interesting because it shows that experimentation was being continued and it confirms the authenticity of a more sophisticated sleigh shown in a water colour of an A Bty Gun painted in 1889 by RW Rutherford, later AAG RCA and Major-General.

While all manuals make reference to sleighs being of the habitant type and leave an impression that these were built in Canada, at least 60 sleighs were built at Woolwich and were shipped to Canada in the period Dec 1861 to Jan 1862.

From 1875 on, very little remains on record, although verbal verification that use of sleighs and experimentation continued has been received from retired officers. This is further substantiated by the following extract from the Toronto Globe, 14 Feb 1910.

For years the Artillery has been trying to get a good reliable gun carriage in the form of a which could be used throughout the winter months, but so far every product has proven a failure. A few years ago a gun mounted on a sleigh was fired on the top of the hill back of Fort Henry, the first shot splitting the sleigh frame, and the second shot ripping the sleigh to pieces. The sleigh does not seem to be able to stand the recoil of the ordnance-like wheels, hence the trouble.

In 1910 Major General Sir Percy Lake was instrumental in arranging and conducting a four-day winter exercise by A and B Batteries in the Kingston area. The newspapers of the day related this scheme to the terrible ordeal of the Northwest Campaign and one reporter stated that the RCHA performed with much better efficiency than the Russians had during the Russian-Japanese War.

The six gun composite battery was equipped with four twelve pdrs and two of the new 18 pdrs. Three of the 12 pdrs were fitted with wooden wheel skids wider than the gun wheel, the wheel fitting into the socket in the runner. It was reported that the skid worked well and that the return trip of 26 miles was made in seven hours over heavily drifted roads, a very creditable time which could

not have been met with wheeled guns in similar conditions. In action with live ammunition the guns were reported to be as serviceable "as on a summers' day".

One 12 pdr and the two 18 pdrs were mounted on sleighs called the Drury carriage which was an adaptation of a farmer's bob sled. During the exercise, modifications were made to these sleighs which allowed the guns to be loaded and unloaded within two or three minutes. The whole exercise was a success, although it was felt by some that it had had a bad effect on the horses, in that they lost "*flesh and vigor*".

No further experimentation seems to be recorded between 1910 and the beginning of World War I. In 1918, 16 Bde CFA was formed and became part of the Archangel Expedition of 1918-1919.

By October 30th 1918, snow was piled and the rivers of Northern Russia were frozen over. All wheeled transport was converted to sleighs. These sleighs were simple and light and were drawn by ponies, reindeer, and dogs imported from Canada. Convoys were able to make up to 40 miles per day with loads up to 800 lbs per sleigh; none of the sleighs were designed as gun carriages. A notable achievement was made by 16 Bde CFA - three 60 pdr guns were moved 120 miles in 10 days, each gun required five sleighs drawn by 34 horses. Loads were arranged as follows:

The piece	- one 10 horse sleigh
Trail and Carriage	- one 10 horse sleigh
Buffer	- one 6 horse sleigh
Wheels	- two 4 horse sleighs

During this winter 11,000 tons of stores were moved by sleigh at an approximate cost of \$45.00 per ton. Limited use of mechanical transport was attempted but due primarily to the difference between the tracks of vehicles and sleighs, movement of trucks and cars was extremely difficult.

In the years that followed the Great War the Gunners were primarily concerned with the new organizations and techniques originating from the war. Survey, anti-aircraft and anti-tank were new areas to be examined and mechanization became a prime responsibility, so much so that the Director became known for a period as the Director of Artillery and Mechanization. During this period over-snow movement received some attention but was in reality treated a secondary problem.

It was not until 1944-45, at the end of World War II, that very serious consideration was given to the problems of winter. During those years an extensive research program was carried out, this program was culminated in Exercise Eskimo.

During this exercise 25 pdrs, 6 pdrs and 40mm Bofors were mounted on skis. These skis were all of a standard pattern, double ended with shallow wells for the wheels which were held in position by chains. C1 Mk 1 Snowmobiles and trucks were used as tractors.

The report of this Exercise makes the following points:

- a. Skis required one-half hour to one hour to mount.
- b. 25 pdrs could be fired off skis, but required a full detachment to move the trail.
- c. The 6 pdr could not be fired off the skis because the upturned tip interfered with the trails when opened.
- d. The 40mm could be fired off skis, but longer jacks were required to penetrate the snow and provide a firm platform.
- e. Two detachments were required to put either ski equipped or wheeled equipment into action, but in manhandling, ski equipped guns were more difficult to handle.
- f. In travelling, it was found that skis helped materially to lift the equipment higher in the snow, making towing easier, but the capability of the tractor was the limiting factor.

The final recommendation was that equipments should be self-propelled but, if guns had to be towed, they should be mounted on tracked mounts rather than skis.

In February 1950, during Exercise Sweetbriar, 1 RCHA was equipped with 75mm pack Howitzers and 4.2 inch Mortars. No difficulty apparently was experienced with the mortars. On snow packed roads, the 75s were easily managed, but were most difficult to handle off the road; skis were dispensed with entirely during the greater part of the exercise. During Exercises Eskimo and Sweetbriar, no comment was made on the action of a ski-equipped sleigh on firing; it is noted however, that attention was given to ensuring that spades were fully dug in.

During the winter training carried out by L Bty RA in Shilo 1964-65, 105mm pack howitzers were transported as pack loads on 12-man towed 200 lb cargo sleds. When the gun was broken down, reasonable time could be made across country but the method was considered to be wasteful of manpower. The 200 lb sleds were judged too light for towing by snowmobiles; unfortunately 500 lb sleds were not available for testing. An experiment was tried by placing the gun on three sleds as

shown below. Here again the trial was not completed due to the lightness of the sled. It was considered helicopters would undoubtedly provide the best means of moving guns across deep snow.

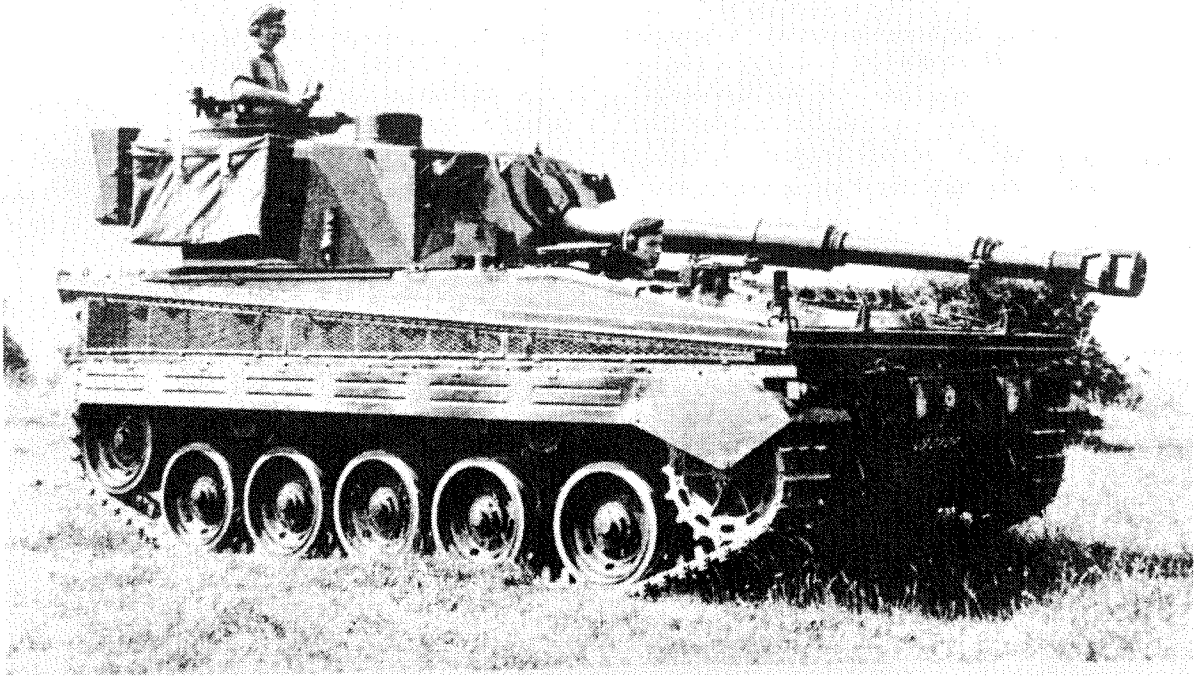
The long held dream of gliding smoothly into action remains no more than that. Efficient deep snow movement has always been and remains dependent upon the capabilities of the tractor to which skis and sleds are only an aid. Perhaps the helicopter, or a form of a hover vehicle, will provide the answer, but once on a gun position only proper selection of platforms, the expertness of Nos 1 and the sweat of well trained detachments will produce efficiency.



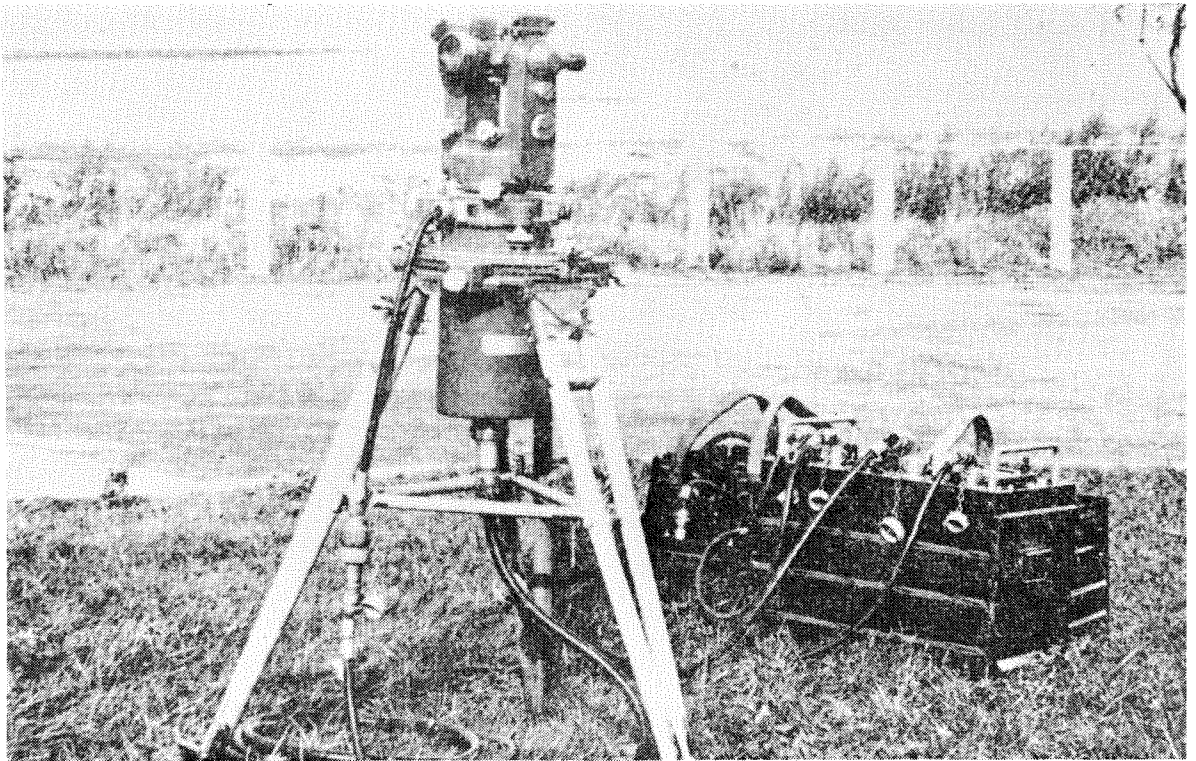
Editor's Note -

K Bty 4 Bde (RA) - On arrival in Halifax from the UK, on 28 Jan 1862, this Bty was known as A Bty 8 Bde. It went to Saint John NB on 28 Oct 1862 where on 1 Apr 1866 it was redesignated K Bty 4 Bde. From Saint John, the Bty was sent to Quebec and Montreal and was withdrawn from Canada in the late autumn of 1871. K Bty again visited Canada in the early winter of 1963 when it was stationed at Camp Shilo for several months of winter training.





ABBOT



PIM

AN IDEA FOR A CLOSE SUPPORT BATTERY

ROYAL REGIMENT, 1966

The SP 105mm ABBOT will be in service as the standard equipment for the British close support regiments in European theatres beginning in 1966. The following organization has been put forward as a possibility for a close support battery when the new equipment is introduced.

The battery will consist of a BHQ and two sections, each section to have three guns. The personnel and vehicle establishment will be quite normal except that there will be three OP officers and only one GPO (no CPO) in the battery. The battery strength will be six officers and 118 other ranks.

BC and OP parties will be mounted in the AFV 432 (in support of armour, an OP tank will be used), the AFV 432 being a tracked vehicle on the same chassis as the SP gun.

To assist OP officers to fix themselves accurately, a "land navigator" equipment will be fitted in the OP vehicle. The vehicle will also mount a compass to be used for measuring bearings to targets direct from the vehicle, and a light weight laser rangefinder will be included.

The GPO will be provided with a modified 3-seater FERRET Scout car, as a reconnaissance vehicle. He will obtain orientation by use of the gyro PIM, and fix by measuring distances from RA surveyed control points using a "Navigator". His command post vehicle will be the AFV 432.

The Field Artillery Computing Equipment (FACE), based on the Elliot 920 computer, which allows for the MV of each gun and for hourly meteorological changes, is under development for the production of gun data. It will be able to com-

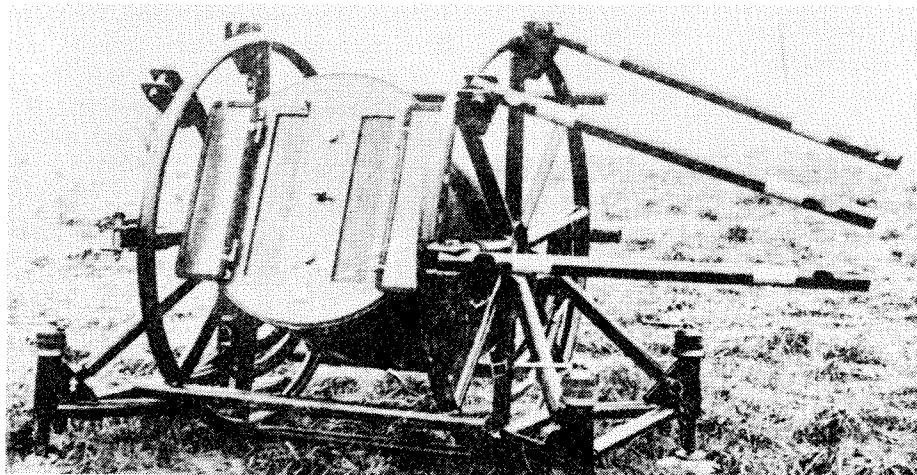
pute data for five separate batteries and will also be able to deal with two types of gun at the same time, eg: ABBOT and medium gun. It is anticipated that it will be possible to compute a ten serial fire plan in 10 minutes as against 60 minutes by present methods.

The ABBOT, the equipment around which this organization is being built, is a 105mm gun mounted on the standard FV 430 series light-weight tracked chassis. It has 6400 mils top traverse. 40 rounds of ammunition are carried in the fighting compartment, which can be completely closed down and pressurized, offering protection to the detachment against nuclear fall-out, small arms fire and shell splinters. Radio and line communication from the command post to the gun can be heard by the whole detachment through an induction loop which also provides inter-communication (IC) within the detachment. There is, in addition, an emergency IC system between the No 1 and the driver.

Each gun has an accompanying limber vehicle which will carry a supply of ammunition on pallets. The limber vehicle envisaged is the Alvis STALWART (a 5-ton amphibious truck) which will be fitted with a crane to lift the pallets. A possible alternative is the tracked FV 431.

A tracked vehicle on a similar chassis to the gun mounting, the FV 434, is being developed and will be issued on REME LAD establishment for recovery purposes.

An electronic velocity analyser (EVA) has been developed to give a simple and fast method of measuring muzzle velocity and which, mounted in a light vehicle, will be available to all batteries, providing a rapid method of keeping guns in calibration.



EVA

46th FIELD ARTILLERY REGIMENT RCA(M)

The following sub-units, based on the locations shown, comprise 46th Field Regiment RCA(M):

- RHQ Drummondville, Quebec
- 72 Bty Coaticook, Quebec
- 73 Bty Victoriaville, Quebec
- 74 Bty Drummondville, Quebec

Unit training began during September 1964, and a number of courses in Artillery subjects were successfully completed by the end of the year. These culminated at the end of November with two week-ends spent at Victoriaville on "Dry" deployments to exercise the men on what they had learned.

In January training resumed with another round of courses in individual training which were completed in May.

The results of this training were not as we hoped for, but this will be an incentive to the unit instructors to work harder this year.

In May, members of the unit spent two Sundays at the Mt Bruno Range firing the FN C1 rifle. About seventy-five percent of those who attended attained a qualification of 2nd Class Shot or better.

We planned for a week-end of live firing at Camp Gagetown or Camp Petawawa but for various reasons were not able to go; needless to say this was a disappointment. We hope that the staff at HQ Quebec Command will have our unit at the top of the list for next winter.

There were no unit Summer Camps in Quebec Command this year but a number of members of the unit took advantage of the courses offered at the various camps.

The Suttie Commission Report was received early in the Fall of 1964 followed a short time later by the recommendations for the reorganization of the Militia and the DND position on these recommendations.

This gave the CO and the Battery Commanders the distasteful task of advising several old comrades that they would have to retire. Some of these retirements have left voids that will be difficult to fill. Being good soldiers all concerned took it very well and after a few months the remaining personnel began to settle down into the new organization.

One of these casualties was Maj Bob Edwards, BC of 72 Bty in Coaticook, who at a formal parade held 16 Mar 65 handed over command

of the Battery to Maj Allan Greer. Lt Col Davis supervised the changeover. There were many friends of the Battery and of the individuals concerned present at the ceremony.

Highlights of the Year:

7 Nov 64 – A Military Ball held at Drummondville with the Honourable Paul Comtois, Lieutenant-Governor of Quebec and Madame Comtois in attendance as guests of honour. About two hundred officers and citizens of Drummondville attended this function.

28 Nov 64 – A Military Ball was held at Victoriaville with our Honourary Lieutenant-Colonel, Maj FE Alain, as guest of honour, which a good number of the citizens of Victoriaville and the surrounding territory attended.

29 May 65 – Our old friend and former CO, Brig J Bibeau was welcomed back to the Regiment as Honourary Lieutenant-Colonel at a Guest Night held at Victoriaville. The ladies joined us in the mess after dinner and the party went on into the wee hours.

1 Jul 65 – A troop formed from all batteries of the Regiment fired a 21 Gun Salute from Mount Royal. This was very well done and all ranks who took part are to be congratulated.

Hin und Zurück auf der Autobahn (continued)

The tracked M113 armoured personnel carriers have now made their appearance in 2 RCHA. The battery commanders and troop commanders of D and F Batteries were equipped with them for the Soltau exercise this year. Map reading becomes a bit more of a challenge, and the increased mobility of the FOOs puts a different complexion on a lot of things. We are now awaiting the arrival of the tracked command posts and perhaps, some day, even SP howitzers.

THE ROCKET BRIGADE IN EARLY 19th CENTURY

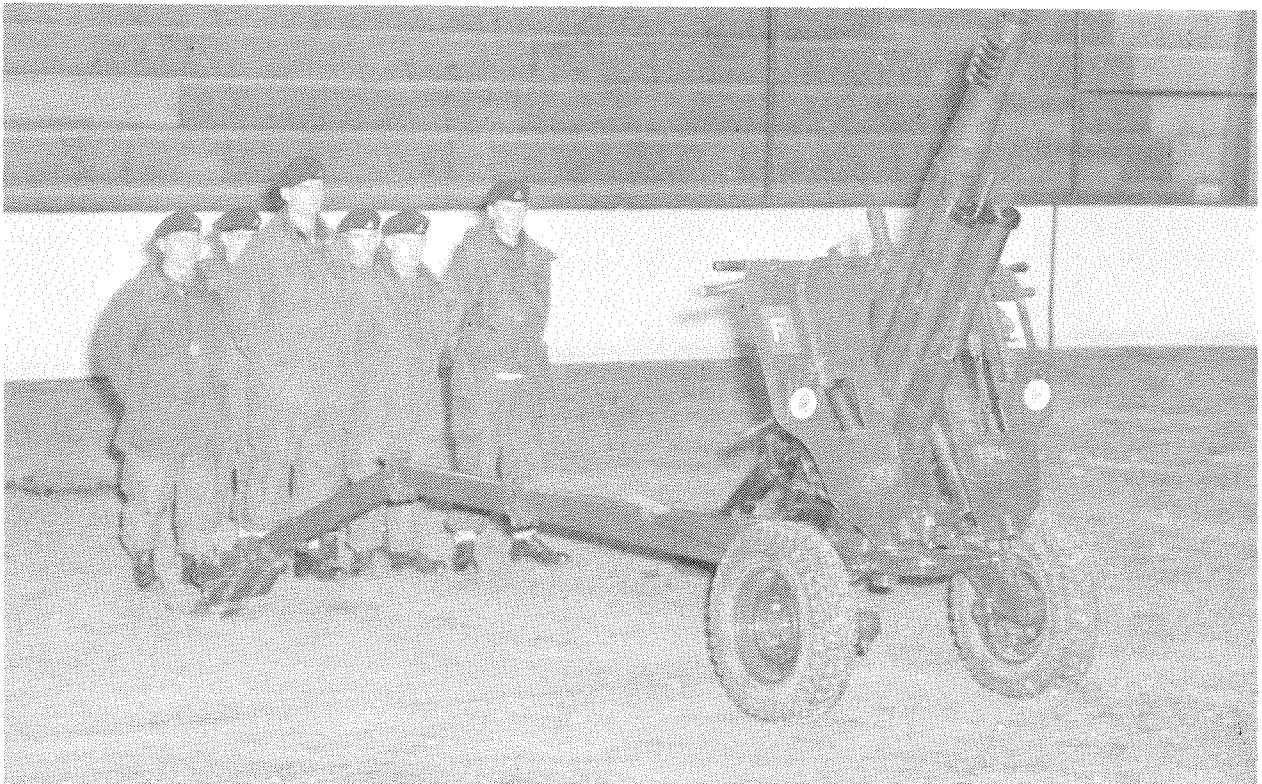
WY Carman, FSA, FR Hist S

The following article is reprinted from the December 1963 issue of the Journal of the Society for Army Historical Research, by the kind permission of the editor of the Journal – Editor.

The origins of the rocket are lost in the mists of antiquity, but it was its extensive use by the Mysoreans against the British in India during the late 18th century that inspired the researches undertaken by William Congreve (1772-1828). His very full book on *“The Details of the Rocket System”*, published in 1815, tells us that he perfected his invention in 1805. In November of that year he made an unsuccessful attack on Boulogne with his rockets. His attack the next year on the same town, however, was a success, as was the attack on Copenhagen in 1807. Rockets fired in Portugal in 1808 were erratic. It was intended to use rockets to their fullest extent on the Walcheren Expedition and although the land batteries under the direct orders of Colonel Congreve were success-

ful and Flushing was captured in August, 1809, the expedition itself was a failure.

Rockets continued in use – 1810 seeing them employed in the Iberian Peninsula, at Cadiz, Santarem, and elsewhere. The land service became firmly established in the succeeding years (vide infra). In 1813 Captain Bogue’s Rocket troop joined the *“Army of the North”* under Bernadotte, Crown Prince of Sweden. Thus part of the Rocket Brigade took part in the Battle of Gohrde on 16th September, a battle honour carried later by the descendants of the Hanoverian King’s German Legion. Of greater importance was the *“Battle of the Nations”* at Leipzig, which took place 16th – 19th October, 1813, in which the Rocket Troop was the sole representative of the British Army. Here unfortunately Captain Bogue was killed by a bullet in the head but the troop gained honours from the Swedish Commander as well as the Emperor of Russia, and the Prince Regent granted them the battle honour *“Leipzig”*.



Detachment of O Battery (Rocket Troop) with Italian 105mm Light How in Manitoba 1962

The second troop of the Rocket Brigade under Captain Eliot saw service in the Peninsula and at Toulouse. The war in Europe having come to a temporary halt, rocket men were sent urgently to America, where they made themselves felt at New Orleans and so impressed the American composer Francis Scott Key that when he wrote the American National Anthem he referred to the "rocket's red glare".

The Rocket Brigade had much action before and during the Battle of Waterloo, especially in the vicinity of La Haye Sainte; all the officers present being wounded with the exception of one. After the battle they marched into Paris and became part of the Army of Occupation. The rocket, as established in the British service, inspired other European nations to adopt the new weapon. Despite this acclaim the use of the rocket in the British Army gradually diminished, although it continued throughout the 19th century, mainly as a weapon against non-European enemies. It is now time to turn to the origins and development of the Rocket Brigade.

Congreve had at his disposal in September, 1811, a detachment of Horse Artillery consisting of one non-commissioned officer and thirty men under Second Captain Richard Bogue. It was named the Rocket Brigade as from 7th June, 1813, under the Royal Warrant of that date. It proceeded overseas four days later. A second unit based on men from the 5th Battalion Royal Artillery, was raised for active service in September, 1813. The detachment under Second Captain HB Lane, was joined by men from Captain Eliot's company, also of the 5th Battalion. In December, 1813, the two rocket troops were established as a brigade under a Lieutenant-Colonel. They were all to be dressed as Horse Artillerymen, but the ex-Battalion men became the Second (even though they were raised first) because Captain EC Whinyates the new Captain, was junior to Captain WG Eliot.

On 4th July, 1816, the Prince Regent ordered the Rocket Service to be reduced to one troop. The First Troop was actually reduced on 31st July and its officers were dispersed.

The Rocket Troop became I Troop, Royal Horse Artillery in 1847. In 1862 it was I Troop of the 1st Horse Brigade but when the Royal Horse Artillery was organized into six brigades in 1862 (GRO 501), it became E Battery of B Brigade. A further change came in 1887 (RO 86) when the Royal Horse Artillery was re-formed into three brigades, which brought the new title of D Battery

of A Brigade. This title remained until 1889 when it became O Battery. O Battery with the honour title of the Rocket Troop became a field battery in 1960.

As the first Rocket men had been drawn from the Royal Horse Artillery, the uniform was of that branch of the artillery. Major EC Whinyates, "Officer commanding a troop of light six-pounders and rockets at Waterloo" gives the following information in the work by Siborne known as the "Waterloo Letters".

"With respect to the costume and equipment of the Rocket Troop at the Battle of Waterloo, the men were dressed like the Horse Artillery, viz: with a laced jacket (having three rows of buttons in front) and helmet. Their appointments (both of horse and man), however, differed from those of the Horse Artillery. They had a pouch belt, which the Horse Artillery had not. Each mounted man carried a fascos of 3 or 4 rocket-sticks in a bucket in a manner similar to the mode lances and Dragoon carbines are carried. These sticks were carried on the right side of the horse. Besides these the centre of threes carried a small trough on his saddle-bags, in which the rocket was laid when fired, and every man in the Rocket Sections carried rockets in his holsters. Should you entertain any intention of representing the costume of the troops, the small flag attached to the rocket stick should not be introduced. It was added by the Captain as an ornament, and was discontinued, and not part of the real equipment. The Horse appointments were those of the Light Cavalry...and the NC Officers and gunners had blue shabraques lined with yellow".

The helmet has the black turban introduced circa 1805, and the scaled chin-strap made necessary by the abolition of the pigtail. Previously the helmet was kept on the head by means of two black ribbons at the sides of the helmet and these tied under the pigtail at the back.

The dress in later years continued to be based on that of the Royal Horse Artillery, as may be seen in a print of 1833 showing the Rocket Troop in Review Order. The Rocket Troops raised in India are part of the history of the Presidential Armies, having their own variations of dress, but that must be another story.

Editors Note -

O Bty (Rocket Troop), with their Italian 105mm light howitzers, underwent winter training in Camp Shilo late in 1962.

REGIMENTAL FASHIONS

* * * * *

A SUBALTERN'S SOLILOQUY

This afternoon the Regiment parades,
 Have my accoutrements been mislaid?
 Why can't my batman keep track of my things?
 Where are my boots, my spurs, my slings?
 I can't find my cap, my blues need a pressing.
 Surely Gunners of old didn't bother with dressing
 To all this extent for a parade or a dinner.
 This grooming is more like a penance for sinners!
 Why, in the good old far off days of yore
 They were much too busy spilling gore
 To titivate like this.
 A bore!
 Now there's all my linen, but where are my gloves?
 I must borrow again from Captain Van Loves.
 How he hates to see me come down the hall.
 If I borrow much more I shall soon have it all.
 Oh, for the days when to dress was no pain.
 One uniform only. It avoided much strain.
 When the hair grew long and was left unattended:
 To soldier in those days must have been splendid.
 At last I have everything; I'd say I am ready
 To appear on parade and try to stand steady.
 But look at the time! Now what's to be done?
 The parade is at two and it's now only one.
 One could hardly lie down, for how would one look?
 One can only stand up. Maybe leaf through a book?
 Here is one — *The History of Dress of the Royal Artillery*
 It will tell me, no doubt, who started this frillery.

The author of *History of Dress of the Royal Regiment of Artillery 1625 to 1897*, Captain RG MacDonald, RA, writes:

My first and earliest recollections on the subject of Hair Clubs present to me the soldiers of the 8th and 12th Regiments (successively quartered in the Island of Guernsey, in or about the year 1789.) Dressing each other's heads was an operation carried out by the gunners of that period. The procedure followed was to plaster the head well with grease, whiten with flour, and roll the hair behind the head in a club, which was effected by means of an iron. It was fastened by a black leather band and ornamented with a rosette. The whole was made as white as a cauliflower.

My next recollection on this subject was at Plymouth, in 1794, when the Officers wore small queues tied with a few turns of riband, and ornamented with a rather large silk rosette. What the men wore, I now forget; but all were still powdered. My own experience gave me the next occasion to notice military friseurship when, in the beginning of 1798, I went to the Royal Academy at Woolwich,

and the doctoring my head underwent at that time will give the fashion of the day. On the top the hair was cut close, and the stumps well rubbed back with hard or stick pomatum, a kind of grease made up in hard rolls about an inch in diameter, and three or four inches long, if I recollect right, run into paper moulds. The stumpy hair, at first stubborn, by perseverance and pomatum, was after at time quite forced out of its natural direction, and made to grow backwards instead of forwards. The remainder of the hair was gathered into a queue behind, which, according to regulation, should be 10 inches long, and ties close to the head; this we called a rooter, but the dandies affected a loose tye, and began some inches lower down. Those whose hair was not long enough had false queues made of stuffed chamois leather with a brush of hair at the end, and this had to be spliced on to his own hair. For uniformity sake, the men wore false queues of strong black leather, which they cleaned and polished like their shoes.

As it was difficult to tie one's own queue, we used to assist each other, and it was a sort of accomplishment, the being able to give a good

queue. But the visits of two barbers once a fortnight offered the best opportunity of getting a capital queue--sometimes, to be sure, such a rooter that it was difficult to shut the eyes; yet many slept in them for a whole week, or till the next barberian visit.

A stiff rosette of polished leather was stuck on by a brass hook that went into the queue, which was a hollow pipe.

At the time we went to church in the old Repository, greasing and whitening the head was in full go, and never shall I forget the stench emanating from so many filthy heads crowded together in the low rooms where service was performed--of course, more particularly in hot weather. The lines round the queue were, I imagine, made to represent the winding of the riband. The hair of the sides and back of the head having been well greased with soft pomatum (more or less scented) made of hog's lard, the whole was thoroughly dusted with hair-powder, combed through again and again until brought to an even appearance.

Lord! what funny things our dressing-boxes were in those days! A tray on the top to hold combs and hard pomatum, small boxes for the soft below, and two large ones like sugarboxes for powder, in which was the puff made of down. These boxes were generally made of tin and lacquered brown. The mysteries of the toilette were manifold in those days. Of combs there were multitudes: I remember only the rack, the ordinary comb, and the curling comb. N.B. — A pair of curling irons usually formed part of the contents of a box. Ladies, besides the common puff of down, used another as a finisher. This was made of silk, forming a kind of tassel of long cords, and the operator, in using it, always stood at the distance of two or three feet from the pouf, and darted the powder at the head by catching the blow aimed at the head with the right hand, on the left wrist, which jerked the powder out of the silken puff and gave it an impulse toward the already-saturated head, where it settled down in beautiful impalpability. White was not the only powder used; there was another of a pale cinnamon colour, called brown-powder, or more fashionable, "Marechale". The peculiar uses of this I forget, or never knew, probably because it was peculiarly a lady's powder. How well I remember standing by my mother's toilet, eyeing with curiosity all the varied combings and curlings and powderings, as she sat wrapped in her flannel dressing-gown! and when all was done then came the powder-knife (another indispensable in the dressing-box), with which the powder was carefully removed from the face without disturbing the hair. This knife was a flat piece of iron set in a tortoise-shell handle, double-edged, but not sharp, very like a spatula on

a small scale. The great stock-in-trade of a perfumer in those days was hair powder of sorts, brown and white, of all possible odours — I think the favourite was violet; next pomatums, equally varying in fragrance, smartly done up in bluish-white gallipots, more or less ornamented, and with an ornamental paper cover. The powder was made up in paper bags of pound and half-pound each. Our allowance at the Academy used to be 1½ lb. per month to each cadet, and pot of pomatum; hard ditto when wanted, which was not often. The day of serving out the powder was generally marked by one or more battles in front of the barracks, where pounds or half-pounds were pelted about like snow-balls — a delightful amusement, for nothing could exceed the fun of bursting one of these projectiles against a fellow's face, and the smoke caused by such numerous explosions was so like that of a real battle. The whitened trunks of the trees, and the great splashes on the dingy red-brick front of the barracks, bore testimony for many a day to the hotness of the fight.

But I am digressing. The subsequent modifications of the queues and tops I forget the dates of. The thick ten-inch queue of the Officers (those of the men were never altered) gave way to long thin ones made of whalebone; and instead of the old rosette, the enveloping riband terminated at the upper part in a most elaborately flowing bunch, which fluttered about one on a windy day like so many black streamers. Dandies affected something monstrous in this way, and although the queue itself had now increased in length until the tuft at the lower end was as low as the waist (the natural one, I mean, for that arranged by the tailors was, about this period, almost under the arms), and its thickness only that of a quill, the flies of riband hung much lower when in a state of rest, and streamed out to an immense distance in the wind. The present Sir John Conroy (of Court notoriety) was an amazing dandy, and that unfortunate fellow Green (who was in the same troop with him, and quite as great a dandy) used to say that if Conroy was coming down a street before the wind, you might have notice of his approach a quarter of an hour before his person appeared, by the streams of riband fluttering before him.

About this time queues were no longer attempted to be imposed on the public as real, by attaching them to one's own hair. They were tied round the neck, between the white cravat and black stock which was worn over it, and although then so accustomed to the sight as not to notice it, yet in 1840 people's cachinnatory muscles would be set in motion, no doubt, by seeing a man's head turning right and left whilst his supposed hair hung unmoved.

The business of hairdressing was pushed

to a ridiculous excess by the late Duke of Kent, particularly whilst Governor of Gibraltar. The first person who boarded every ship coming into harbour was His Royal Highness's hairdresser, and no officer was allowed to land until he had submitted his head to be operated on by this functionary. On the top it was to be cut in a horseshoe form; a string put round the ear and held in the mouth, decided the termination (downwards) of the whiskers; and such fooleries. Sir A Frazer once travelled in a coach with a wild-looking boy of sixteen, whose hair was as shaggy as that of a wild colt. He was going then to join the Duke's Regiment, whence he had been sent, with six months' leave of absence and positive orders not to cut his hair, which on his first joining had been found too short to admit of being properly put into shape. The 1st Royals long retained their queues after every other regiment had discarded them, and, after all, may be said to have been taken from them by force, the General Officer Commanding (at Wheely Malder or Danbury Burray, I forget which) having threatened to have them cut off on parade unless removed by a specified day. Meanwhile courier upon courier was said to have passed between the Commanding Officer of the regiment and Kensington Palace, where His Royal Highness then lived. Alas, poor queues!

The exact year when powder and queues expired, I don't exactly remember. It appears to me that the death-blow was given by the earlier Peninsular campaigns, but there are other things that stagger me in this belief. I remember, for instance, powdering the side locks after putting my helmet on in 1808, and wearing queues in 1809-10, etc. Yet do I also remember, in 1802 or 1803, at Cork on some occasion of rejoicing, that our Colonel

(Howorth) ordered the party which paraded to fire a salute on the quay at George Island, to powder, and I also remember the impression on my mind made by their appearance with white heads, which I thought very ridiculous, which would not have been the case had my eye been accustomed to it. Further, I remember how conceited I was about my own brown hair (which certainly was luxuriant and beautifully curling), and how certain ladies, whose pet I was, taught me to brush and anoint it with Huile Antique, then the fashionable application; and it was this conceit and preference to a brown head that made me, as I have stated above, powder my side locks, after putting my helmet on, so keeping the rest clean, which shows that it was still necessary to appear powdered at parade in 1808. And I remember, also, that it was as necessary in going to mess, there being a fine for any one going to dinner without — a most cogent reason for my dining so often in my room, as I did whilst at Woolwich that year.

All this induces me to believe that powder was left off by the men much earlier than by the Officers, and that queues were worn by both long after powder had ceased among the men. In Kane's book I find the order for discontinuing queues is dated August 1, 1808, for the ordnance Corps, but Sir Augustus (then Captain) Frazer made us leave queues and feathers behind in 1807, when we went to the Rio de la Plata. Still the Master-General's order for providing the men with sponges to wash their heads, etc., looks as if they had powdered up to that time. In civil life, every one must remember Lord Matthew, afterward Lord Llandaff, remarkable at once for his large and commanding figure, and retaining his queue and powder long after it had disappeared everywhere else.

I must admit I was a bit rash
 To fuss about trivialities like slings and a sash
 The gunners of old put up with much more
 Than we who have joined long since *The War*.

RCA CENTRAL FUNDS

Constituted as a means of controlling the regimental property of Regular Force units during periods of emergency, RCA Central Funds originally consisted of two separate funds, the Officers' Regimental Fund, and the RCA Non-Public Property Central Fund. The Officers' Regimental Fund originated in 1922 with the close-out of Quebec as a Gunner station, its basis being the residue of Officers' Mess monies. This money was carefully husbanded through the years until 1939 and was then placed in trust for the duration of World War 2. The happy result of this policy was that the fund increased six-fold. The second fund, the RCA NPP Central Fund, was formed in 1953 from monies derived from the Kingston artillery institutes, which had been held in trust during the war. This fund was later augmented in a very substantial manner by the inclusion of the Halifax Trust Fund, monies derived from Gunner institutes of the Halifax garrison which had been closed down. Similarly, a further addition to the fund resulted from the closing of Picton as a Gunner station. By 1963 the operation of the RCA NPP Central Fund had become a fairly complex affair. The division of the RCA NPP Fund into three distinct shares, by the formation of the RCA Sergeants' Regimental Fund, has helped to ensure that the money will be used directly for the benefit of the various ranks from whom it is derived.

There have been a number of projects of a regimental nature in which participation by all ranks has been desirable and indeed necessary. One has been the RCA Museum, which has received plaudits from many people inside and outside of the Regiment, some of whom have been professional museum workers. Another has been the raising of a commemorative cairn and plaque which was unveiled in Halifax by the Colonel Commandant in October of this year.

As the inaugural activity of the new Sergeants' Regimental Fund, the Warrant Officers and Senior NCOs this year started the practice of presenting an inscribed drill cane to the top graduate of each Senior NCO Course conducted at RCSA.

The Regimental Sergeant Majors will meet in the near future at the Home Station to formulate policies relating to this fund.

During the past year, the Officers' Regimental Fund has provided a substantial amount of capital for the improvement of unit Officers' Messes, the main proviso being that such improvements be concurred in beforehand by the Executive Committee as being of a long-term nature. In addition, the fund bears the costs of such projects as the publication of this journal, the presentation of officers' retirement plaques, and the publication of our Regimental Standing Orders. (This last, will be broadened by the addition of Chapter 4 and Amendment No 1 during 1966, has been used as a model by other corps).

The RCA NPP Central Fund has continued the sales of Regimental buckles, lanyards and stemware, with the benefits of bulk purchase for all institutes, and this year an engraving machine was purchased which resulted in considerable savings in the engraving of officers' retirement gifts, museum showcards, trophy plaques and other items. It is hoped that, in due course, other methods of effecting savings can be developed and extended throughout the regiment.

From time to time many projects of a regimental nature are considered by the Executive Committee of Central Funds. Some are long-term projects showing little immediate benefit; others are such as to have an immediate effect; in many instances benefits will be intangible.

Central Funds will continue to function, because they must, but whether this legacy of the past will continue to grow and take an increasingly useful and effective place in Regimental affairs, depends upon the continued active support of all members of the regiment.

The present financial situation of the three funds is reflected in the comparative balance sheets on the pages which follow.

RCA OFFICERS' REGIMENTAL FUND
COMPARATIVE BALANCE SHEET
AS AT 31 OCT 64 AND 31 OCT 65

<u>Assets</u>	<u>1965</u>	<u>1964</u>	<u>Liabilities</u>	<u>1965</u>	<u>1964</u>
Petty cash		35.00	Accounts payable	1,666.36	355.02
Cash in hand	79.44	5,165.32	General Fund	7,938.56	18,729.06
Accounts Receivable	516.09		Mess improvement accounts	3,938.56	241.99
Investments	24,125.75	24,125.75	Budget Surplus	1,151.81	-
	<u>24,721.28</u>	<u>29,326.07</u>	Reserve	10,000.00	10,000.00
				<u>24,721.28</u>	<u>29,326.07</u>

UNIT OFFICERS' MESSES

	<u>1965</u>	<u>1964</u>
Contingency Accounts Receivable	38,545.75	30,489.33
Furniture and Equipment	104,110.32	91,458.04

RCA SERGEANTS' REGIMENTAL FUND

COMPARATIVE BALANCE SHEET

AS AT 31 OCT 64 AND 31 OCT 65

<u>Assets</u>	<u>1965</u>	<u>1964</u>	<u>Liabilities</u>	<u>1965</u>	<u>1964</u>
Cash on deposit	1,482.22	4,416.08	RCA NPP Central Fund	1.00	2,956.68
Investments	5,400.00	5,400.00	RCA Officers' Regimental Fund	62.62	1,459.40
	<u>6,882.22</u>	<u>9,816.08</u>	General Fund	1,389.33	5,400.00
			Reserve	5,400.00	5,400.00
			Budget Surplus	<u>29.27</u>	<u> </u>
				<u>6,882.22</u>	<u>9,815.08</u>

UNIT SERGEANTS' MESSES

	<u>1965</u>	<u>1964</u>
Contingency Accounts Receivable	22,221.73	27,276.67
Furniture and Equipment	62,635.48	56,677.58

RCA NPP CENTRAL FUND
COMPARATIVE BALANCE SHEET
AS AT 31 OCT 64 AND 31 OCT 65

<u>Assets</u>	<u>1965</u>	<u>1964</u>	<u>Liabilities</u>	<u>1965</u>	<u>1964</u>
Petty cash and cash on hand		22.86	Accounts payable	510.39	506.36
Cash in bank	77.34	708.87	General fund	20,703.80	28,111.90
Accounts receivable	1,108.97	3,485.70	Museum account		513.57
Loan to FOB Curling Club	3,000.00	3,000.00	Reserve	6,000.00	
Merchandise inventory	1,640.01	614.40		<u>27,214.19</u>	<u>29,131.83</u>
Budgetary loss	87.87				
Investments	21,300.00	21,300.00			
	<u>27,214.19</u>	<u>29,131.83</u>			

	<u>1965</u>	<u>1964</u>
Contingency Accounts Receivable	46,837.99	44,162.53
Furniture and Equipment	73,173.21	79,139.08

**MINUTES OF THE 80th GENERAL MEETING OF THE RCAA
HELD AT CAMP PETAWAWA, ONT, 1 OCT 65**

1. Registration of delegates and members commenced at 0830 hours. The General Meeting began at 0900 hours with the President, Lt Col WS Jackson, in the chair.
2. Following the President's opening address, Lt Col DW Francis, CO 4 RCHA welcomed the delegates and members to Petawawa.
3. Because some members had to leave early to meet commitments at R.M.C., the election of Honorary Life Members was taken up next. The meeting approved unanimously the appointments of Col EW Cormack and Maj Gen HA Sparling.
4. The Minutes of the 1964 Meeting were approved on the motion of Major Reynolds and Lt Col Turnbull.
5. Reports were given and adopted as follows: (NOTE: all reports will be printed in full in the Annual Report).
 - a. **History Report** given by Maj Gen Sparling and adopted on the motion of Gen Sparling and Brig Robertson.
 - b. **Financial Report** given by the Secretary and adopted on the motion of Maj Metheral and Lt Col Turnbull.
 - c. **Competitions Committee Report** given by Lt Col Cambridge. This was accepted by the Meeting and the various recommendations are to be dealt with by the incoming Committee.
 - d. **Chairs for Shilo Committee** given by Lt Col McAlpine and approved on his motion; seconded by Lt Col Lefebvre.
6. **Aide Memoire for Gunner Officers.** Col Orton explained that his staff was now writing the basic manual from which the aide memoire is to stem. Time has not allowed for its completion but it is hoped that it will be done next year.
7. **Standing Orders.** Col Orton said that amendments are being prepared now for publication next year. It is possible that the whole book may be rewritten if sufficient items require changing. On the motion of Brig Robertson and Lt Col Aspeslet, the Executive was authorized to contribute to the cost of printing the amendments to the Standing Orders up to \$200, if necessary.
8. **Life Memberships** were approved as recommended by the Executive Committee.
9. **General Membership.** The President asked for names of officers from disbanded units to be forwarded, with their addresses, to the Secretary by Command representatives. He asked that each individual member make himself a Membership Committee of one and encourage people to join.
10. On the motion of Brig Robertson and Brig Giroux, the payment of expenses for next year's meeting was approved.
11. The President asked for a motion to pay the expenses of Col DF Burrows, a Militia Adviser, who was attending at his own expense. This was approved on the motion of Lt Cols McLean and Elsdon.
12. Payment of the maintenance account to the Commonwealth War Graves Commission for the care of the Artillery Memorial in France, together with the cost of the wreath to be laid in England by a Canadian gunner officer from the Regular Force on behalf of all Canadian gunners, was approved on the motion of Maj Hegan and Lt Col Walsh.
13. Lt Col Clemis reviewed amendments to the rules, mainly necessitated as a result of the abolition of Militia Groups and the introduction of Militia Advisers. Brig Normandeau seconded the motion of Lt Col Clemis which was approved. Complete amendments will be reviewed in the Annual Report and the amended rules published.
14. The President reported that the Executive Meeting had originally decided to recommend that the 1966 meeting be held in Ottawa in order that we would be close to CFHQ after the

completion of just over a year after the Suttie Commission report. Brig Robertson pointed out that as Training Command was in Winnipeg and as we could also, no doubt, get Maj Gen Anderson to come, he thought we should hold the meeting in Shilo, it having been the practice since 1960 to hold it there on the even years. His motion was seconded by Lt Col Turnbull. The meeting is to be held, if possible, on the corresponding weekend as the 1965 meeting, that is the end of September and beginning of October.

15. The invitation of Lt Col Ingram, CO 11th Fd, to hold the 1966 meeting at Guelph, was declined with thanks. The year 1966 is the 100th Anniversary of 11 Fd Regt RCA (M) and Lt Col Ingram wished to have the RCAA help celebrate this anniversary as Guelph had always been a good gunner city.
16. On the motion of Lt Col Cambridge and Lt Col Turnbull, the 1967 meeting is to be held in Montreal, at the same time as we normally hold the meeting, corresponding to the 1965 meeting time, that is the weekend closest to the end of September and beginning of October.
17. **Resolutions:** The following were discussed. Each will be detailed in full in the Annual Report.
 - a. **Provision of Regular Force Personnel** to Militia Units and reduction in rank of call-out personnel. Submitted by 46 Fd, Drummondville. This turned out to be a local problem. As there will be no more call-outs, the resolution was withdrawn.
 - b. **Change of Establishment**, TSM vacancy. Submitted by 7 Bty, Montreal. Moved by Maj Day and Lt Col Davis. Carried and to be referred to CDA or "D" Reserves.
 - c. **RCA Militia Efficiency Competitions** be introduced at battery level. Submitted by 7 Bty, Montreal. Generally agreed to by the meeting. The resolution is to be turned over to the Competitions Committee Chairman, although these recommendations are along the same lines.
 - d. **Grant of Annual Training Bonus.** Submitted by 7 Fd, Toronto, and 50 Fd, Peterborough and 57 Fd, Welland. Moved by Lt Col Atkins and Lt Col Cook and to be forwarded to CDA.
 - e. **Use of Canadian Forces Recruiting Services** for Militia recruiting. Submitted by 7 Fd, Toronto and 57 Fd, Welland. Moved by Lt Cols Atkins and Kenyon. To be submitted to CDA.
 - f. **Change of Qualifying Courses for Captain and Major.** Submitted by 7 Fd, Toronto and Central Ontario Area Representative. Agreed to on the motion of Lt Cols Atkins and Cambridge and to be forwarded to CDA.
 - g. That the emergency measures pool of vehicles be used by the Militia in order to alleviate the shortage of vehicles and assist in keeping such emergency measures vehicles in condition. Approved on the motion of Lt Cols Elsdon and Shapiro and to be forwarded to CDA.
 - h. On the motion of Lt Cols Cambridge and Turnbull, a resolution to be written and sent to Maj Gen Sparling for review was approved. The resolution is to go to the CDA and ask for clarification of the objectives of integration so that the Association can assist in attaining the Minister's objectives with sensible and comprehensive recommendations.
 - j. On the motion of Lt Cols Williamson and Kenyon, it was agreed to request that live firing be carried out at all summer camps.
 - k. The resolution re gratuities for Militia Personnel on page 33 of the 1963-64 Annual Report is to again be referred to CDA.
 - l. The resolution re COTC commitment for service on page 36 of the 1963-64 report is to be dropped.
 - m. On the motion of Lt Cols Cambridge and Turnbull, it was requested that the two Montreal batteries be upgraded to a regimental level; to "D" Reserves.
 - n. It was moved by Maj Day that a request be made to review the recommendations of the Suttie Commission regarding the status of the RCA. There was no seconder so the

motion was dropped.

- o. On the motion of Col Burrows and Brig Normandeau, it was agreed that the Association would support a gift to the RA on the occasion of its 250th birthday. This will be in conjunction with the Regular Force.
 - p. On the motion of Brig Normandeau and Col Burrows, it was agreed that \$200 be allotted to purchase a gift to 4 RCHA to commemorate the 1965 meeting of the RCAA being held at Petawawa.
18. The President presented Life Membership Certificates to those present: Maj Gen Matthews, Brig Normandeau, Brig Robertson and Brig Gillies.
19. The Meeting agreed to \$4,000 being allotted to the Competitions Committee.
20. Col JS Orton, Commandant of the Royal Canadian School of Artillery, spoke to the meeting. His remarks will be outlined in the Annual Report.
21. It was agreed that the length of future meetings be extended to cover the volume of business to be dealt with.
22. **Election of Officers.** The following were elected, the slate being brought in by the Nominating Committee Chairman, Brig Normandeau, and approved.

President	- Lt Col ER Clemis
Vice-President	- Lt Col RJ Connor
Secretary	- Lt Col EC Scott
Asst Secretary	- Lt Col HT Vergette
Advisory Committee	- Brig JHT Gagnon Maj Gen HA Sparling Lt Col EA Royce
Auditor	- Chas W Pearce
Eastern Command Representative	- Lt Col JH Turnbull
Quebec Command Representatives	- Lt Col TA McLean Lt Col JG Lefebvre
Central Command Representatives	- Lt Col JD Cambridge Lt Col Donald
Western Command Representatives	- Lt Col RN Walsh (Sask and Man) Lt Col WD Elsdon (BC and Alta)

Note -

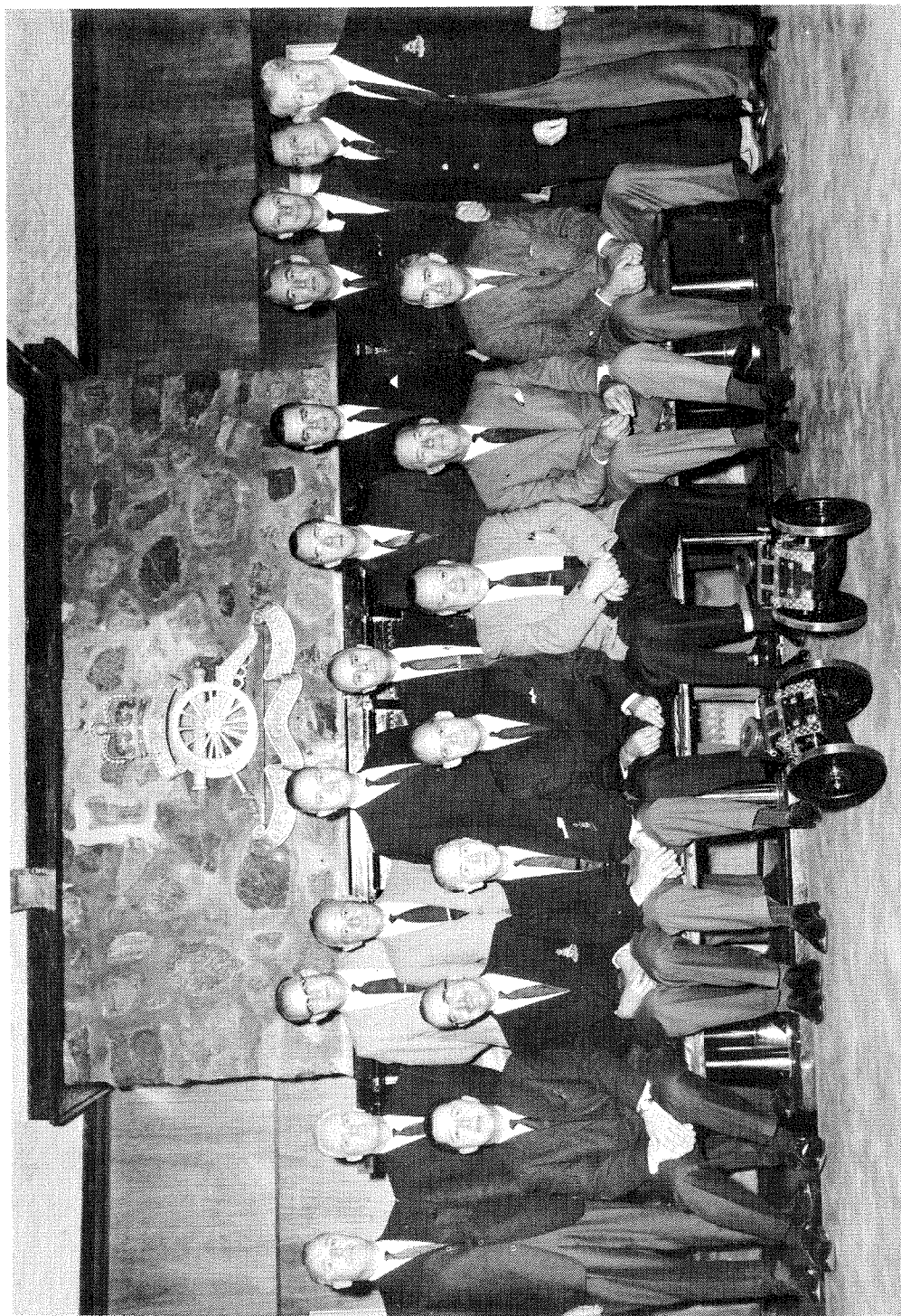
In 1964, a legal interpretation of Rule 5(b) was obtained. It eliminated retired officers as being eligible to be elected as Command or Area representatives. Through an oversight, this was missed at the last annual meeting. This note is written to ensure that reference is made to this next year so that Command or Region representatives are selected from serving officers.

- 23. The Meeting was turned over to the new President, Lt Col ER Clemis, who thanked the meeting for the honour accorded him.
- 24. Motion of adjournment made by Col Burrows and Brig Normandeau was Carried.

PROMOTIONS TO WO1

The following WO2s were recently promoted to WO1:

WO2 Barham JFW	WO2 Malcolm GN
WO2 Clarke HA	WO2 Maskell MH
WO2 Hanlon RF	WO2 Witt SG
WO2 LeMaire EC	WO2 Wood FC



Executive Committee for 1964-65

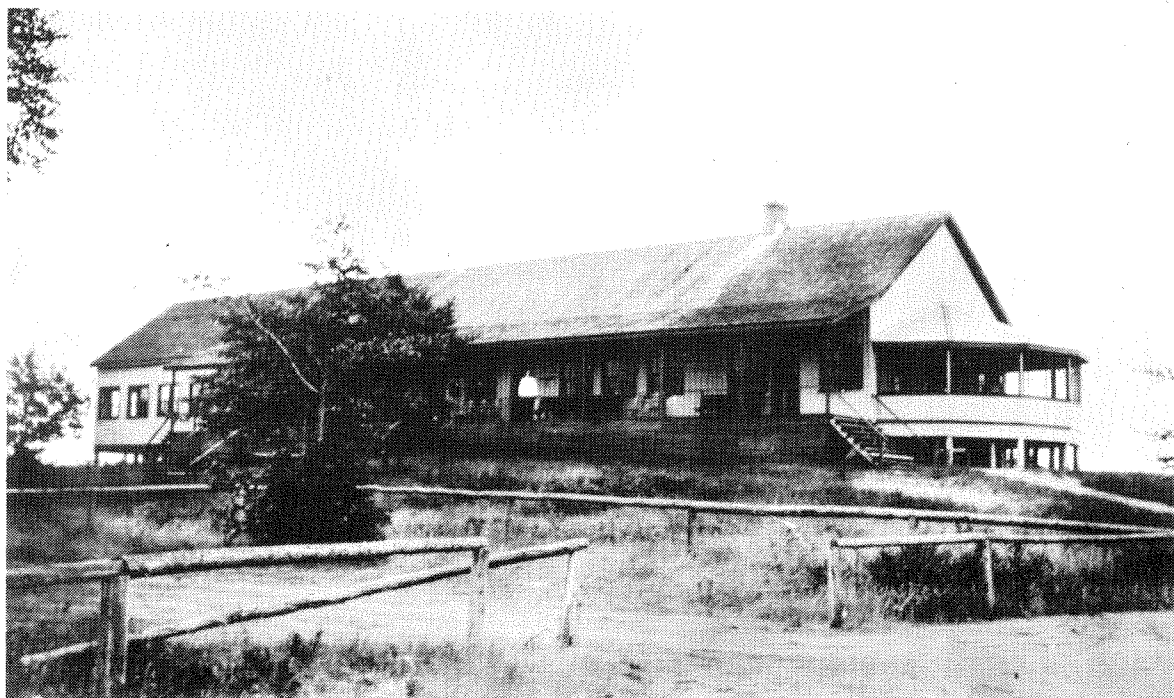
*Left to right, front row – Brig JP Giroux, Brig RT DuMoulin, Brig GB Robertson, Lt-Col WS Jackson (President) Lt-Col ER Clemis, (Vice President), Major General HA Sparling, Brig R Normandeau
 Left to right, back row – Lt-Col HT Vergette, Lt-Col RA McAlpine, Lt-Col RN Walsh, Lt-Col AJW Dyer, Lt-Col WD Elsdon, Lt-Col AO Aspetet, Lt-Col SP Geddes, Lt-Col JH Turnbull, Maj DM Methetal, Lt-Col JD Cambridge, Lt-Col TA McLean, Lt-Col EC Scott*

**APPOINTMENT OF
HONORARY COLONEL AND HONORARY LIEUTENANT-COLONEL
ROYAL CANADIAN ARTILLERY, CANADIAN ARMY (MILITIA)**

1st Field Regiment Halifax, NS	Honorary Colonel Honorary Lieutenant-Colonel	Lt-Col SC Oland, VD, CD Appointment vacant
3rd Field Regiment Saint John, NB	Honorary Colonel Honorary Lieutenant-Colonel	Brig PW Oland, CD Lt-Col AA Dodge, ED
6th Field Regiment Levis, Que	Honorary Colonel Honorary Lieutenant-Colonel	The Hon Jean Lesage, PC, CD, MPP Appointment Vacant
7th Field Regiment Toronto, Ont	Honorary Colonel Honorary Lieutenant-Colonel	Lt-Gen GG Simonds, CB, CBE, DSO, CD Lt-Col DH Jupp, OBE Lt-Col EA Royce
7th Field Battery Montreal, Que	Honorary Colonel Honorary Lieutenant-Colonel	Brig ER Suttie, CBE, DSO, ED, CD Col RJ Fisher, MBE, ED, CD
8th Field Regiment Hamilton, Ont	Honorary Colonel Honorary Lieutenant-Colonel	Lt-Col HA Farthing, ED, CD Appointment vacant
10th Field Regiment Regina, Sask	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Appointment vacant
11th Field Regiment Guelph, Ont	Honorary Colonel Honorary Lieutenant-Colonel	Lt-Col the Hon GA Drew, PC, VD, CD Appointment vacant
14th Field Regiment Yarmouth, NS	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Brig WD King, OBE, ED, CD
15th Field Regiment Vancouver, BC	Honorary Colonel Honorary Lieutenant-Colonel	Brig AMcB Bell-Irving, OBE, ED T Ingledow, Esq Lt-Col AM McGavin, CD
18th Field Regiment Lethbridge, Alta	Honorary Colonel Honorary Lieutenant-Colonel	RR Davidson, Esq Appointment vacant
20th Field Regiment Edmonton, Alta	Honorary Colonel Honorary Lieutenant-Colonel	Lt-Col EW Cormack, OBE, ED, CD Appointment vacant
21st Field Regiment Wingham, Ont	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Lt-Col ED Bell, ED, CD
26th Field Regiment Brandon, Man	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Maj SA Magnacca, ED, CD
27th Field Regiment Cowansville, Que	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Appointment vacant
30th Field Regiment Ottawa, Ont	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Appointment vacant
40th Field Regiment Kenora, Ont	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Maj GR Carmichael, VD, CD

44th Independent Field Battery Prince Albert, Sask	Honorary Lieutenant-Colonel	Appointment vacant
46th Field Regiment Drummondville, Que	Honorary Colonel Honorary Lieutenant-Colonel	Brig ER Suttie, CBE, DSO, ED, CD Brig J Bibeau, DSO, ED
49th Field Regiment Sault Ste Marie, Ont	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Appointment vacant
50th Field Regiment Peterborough, Ont	Honorary Colonel Honorary Lieutenant-Colonel	Col JA Dewart, MC, ED Appointment vacant
50th Field Battery Montreal, Que	Honorary Colonel Honorary Lieutenant-Colonel	Brig ER Suttie, CBE, DSO, ED, CD Lt-Col EW Tremblay, DSO, ED
53rd Field Regiment Yorkton, Sask	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Lt-Col F Steele, CD
56th Field Regiment Listowell, Ont	Honorary Colonel Honorary Lieutenant-Colonel	The Hon WR Macdonald, PC Appointment vacant
57th Field Regiment Niagara Falls, Ont	Honorary Colonel Honorary Lieutenant-Colonel	Maj EH Lancaster, ED, CD Col G Weir, OBE, CD
62nd Field Regiment Shawinigan, Que	Honorary Colonel Honorary Lieutenant-Colonel	Appointment vacant Appointment vacant

Editor's Note – This list has been compiled from the last information available. Corrections should be sent to the Editor.



The Officers' Mess Petawawa, 1931

ARE YOU REALLY OVERWORKED?

The following office rules were issued by a firm of Merchants and ship Chandlers in Sydney, Australia – 1852.

RULES FOR CLERICAL STAFF

Godliness, Cleanliness and Punctuality are the necessities of a good business.

On the recommendation of the Governor of this Colony, this firm has reduced the hours of work and the Clerical staff will now only have to be present between the hours of 7 a.m. and 6 p.m. on weekdays. The Sabbath is for Worship, but should any man-of-war or other vessel require victualling, the Clerical staff will work on the Sabbath.

Daily Prayers will be held each morning in the Main Office. The Clerical staff will be present.

Clothing must be of a sober nature. The Clerical staff will not disport themselves in raiment of bright colours, nor will they wear hose unless in good repair.

Overshoes and topcoats may not be worn in the office but neck scarves and headwear may be worn in inclement weather.

A stove is provided for the benefit of the Clerical staff. Coal and wood must be kept in the locker. It is recommended that each member of the Clerical staff bring 4 pounds of coal each day during the cold weather.

No member of the Clerical staff may leave the room without permission from Mr Ryder. The calls of nature are permitted, and the Clerical staff may use the garden below the second gate. This area must be kept in good order.

No talking is allowed during business hours.

The craving for tobacco, wines or spirits is a human weakness and, as such, is forbidden to all members of the Clerical staff.

Now that the hours of business have been drastically reduced, the partaking of food is allowed between 11:30 a.m. and noon, but work will not, on any account, cease.

Members of the Clerical staff will provide their own pens. A new sharpener is available, on application to Mr Ryder.

Mr Ryder will nominate a Senior Clerk to be responsible for the cleanliness of the Main Office and the Private Office, and all Boys and Juniors will report to him 40 minutes before Prayers, and will remain after closing hours for similar work. Brushes, brooms, scrubbers and soap are provided by the Owners.

The new increased weekly wages are as hereunder detailed:

Junior Boys (to 11 years)	19¢
Boys (to 14 years)	31¢
Juniors	68¢
Junior Clerks	1.27
Clerks	1.59
Senior Clerks (after 15 years with the owners)	3.15

The owners hereby recognize the generosity of the new labour laws, but will expect a great rise in output of work to compensate for these near Utopian conditions.

A CANADIAN SATELLITE IN 67?

Plans are being formulated for the placing into orbit in 1967 of a 40 pound satellite from a launching site at Highwater, Que, some 65 miles southeast of Montreal. The event will follow by approximately five years the launching of the first Canadian space-craft, Alouette 1, which was launched in 1962 from California to further the study of ionospheric interference with radio communications.

The 1967 satellite will reach a zenith of 500 miles, and will be carried during the initial part of its journey by a three-stage one ton Martlet IV rocket. Take-off propulsion will be provided by a smooth bore 16-inch gun.

The High Altitude Research Programme (HARP), which is behind the launching, is a project of McGill University's Space Research Institute. The Canadian government and the US Army contribute substantially to the cost of HARP, which operates a firing range in the Barbados. HARP is primarily a science experiment under the supervision of Prof GV Bull of McGill, who foresaw the possibility of a large calibre gun being used to give effective and low-cost initial propulsion to rocket

assisted space-craft.

Prof Bull was successful in convincing the US Army Ballistics Research Laboratories at Aberdeen, Maryland, of the feasibility of his project, and US authorities placed at his disposal a 16-inch naval gun from which the rifling was removed for the experiment. The gun has an effective barrel length of approximately 57 feet, to which it is now intended to add a further 20 feet in order to substantially raise the muzzle velocity. It is mounted in a conventional manner on a concrete base, and is fired at an elevation of approximately 85 degrees.

The Martlet series of rockets has been put through an extensive programme of launchings from the Barbados gun site, the Martlet III rocket being used in a 50 shot series in which 50 pound payloads were fired to altitudes in the region of 200 miles.

From a modest beginning, HARP now operates a firing range which includes photographic stations on the islands of Barbados, St Vincent, Grenada and Tobago, as well as a tracking ship and two radar stations. More than 500 persons are engaged on various aspects of the project. In addition to the site at Highwater, Que, a new gun site is being installed at Yuma, Arizona, and plans call for another one in the Arctic.

ANSWERS TO QUICKLY NOW

1. Henry VIII, at the beginning of the 16th century formed the first permanent force of artillery in England when he established a Master Gunner and twelve paid gunners at the Tower of London. Master Gunners held permanent positions in castles or citadels where in addition to the care of equipment it was their duty to train the gunners.
2. The Minister of National Defence.
3. Approximately 10,000 meters.
4. Artillery Day 26 May; Saint Barbara's Day 4 Dec.
5. The Royal Artillery Slow March;
The Royal Artillery Quick March – British Grenadiers;
The Trot Past – The Keel Row;
The Gallop Past – Bonnie Dundee.
6. Muzzle brakes are designed to improve the stability of the carriage on firing, particularly the lighter types of carriage. Baffle plates and side vents deflect the gases, causing less kick back against the gun and therefore less strain on the trunnions.
7. With QF guns or howitzers, 10 seconds.
With BL guns or howitzers, 15 seconds.
8. In 1628, guns for the defence of Quebec, were sent out from France but were captured by English privateers in a naval encounter near Gaspé Bay.
9. In 1905 the Royal Canadian Field Artillery was redesignated as the Royal Canadian Horse Artillery.
10. At the siege of San Sebastian, Spain, in 1813; it was not used on a timed basis until 1915.

ANSWERS TO PHOTO QUIZ

1. 90mm anti-aircraft gun in the ground role.
2. 25 pounder field gun.
3. 40mm SP light anti-aircraft gun.
4. Twin 6 pounders coast artillery.
5. The Officers' Mess, Work Point Barracks, Esquimalt, BC.
6. Discarding sabot anti-tank projectile.
7. 3.7 in heavy anti-aircraft gun.
8. The original Shilo service station.

OFFICERS' LOCATION LIST

(As of 1 Nov 65)

Maj-Gen	WAB	Anderson, OBE, CD	Deputy Chief of Reserves
Maj-Gen	RP	Rothschild, MBE, CD	Commander Material Command
Brig	AJB	Bailey, DSO, OBE, ED, CD	Senior Officer, Training Command (Army Component)
Brig	HE	Brown, OBE, ED, CD	Chief of Personnel Branch
Brig	LE	Kenyon, CD	Director General Intelligence
Brig	ML	Lahaie, DSO, CD	Commander Eastern Quebec Area
Brig	HW	Sterne, DSO, MBE, CD	Commander Manitoba Area
Brig	DAG	Waldock, CD	Chief of Technical Services
Col	JP	Beer, MBE, CD	Headquarters Mobile Command
Col	GRA	Coffin, CD	Army Equipment Engineering Establishment
Col	JL	Drewry, DSO, CD	Canadian Contingent – United Nations – Cyprus
Col	JS	Dunphy, CD	Canadian Armament Design and Experimental Establishment
Col	RE	Hogarth, DSO, CD	Secretariat Defence Staff – Army
Col	RG	Kingstone, MBE, CD	Military Attache – United Arab Republic
Col	EMD	Leslie, DSO, CD	Canadian Section – SHAPE
Col	GP	Marriott, ED, CD	Commander Camp Shilo
Col	RE	Nourse, CD	Director Postings and Careers Army
Col	NW	Reilander, CD	Commander Camp Petawawa
Col	KA	Toms, CD	Commander Calgary Garrison
Col	GL	Vincent, CD	External Affairs – NATO – Paris

Directorate of Service Conditions and Welfare

Maj	RG	Buell, CD	Maj	RV	Leamen, CD
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Directorate of Ceremonials

Capt	SJ	Bowers, CD	Capt	WDW	Lewis
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Directorate of Postings and Careers (Army) (RCA)

Maj	JE	deHart, MC, CD	Capt	SR	Moore, CD
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Directorate of Postings and Careers – Administration and Records

Lt	JH	Ryan
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Rotation

Capt	HE	Done, CD
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Staff Duties and Administration

Capt	RL	McLellan
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Reserves Sub-Section

Capt	ER	James, MBE, CD
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Statistics Sub-Section

Capt	RV	Armishaw, MBE, CD
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Directorate General of Training and Recruiting

Maj	CA	Coull, CD	Maj	CJ	Crowe, CD
Maj	EB	MacLatchy, CD	Capt	RA	Diespecker
Capt	SM	Smith	Capt	RJ	Turk

Directorate of Officer Cadets

Maj	MA	McDowell, CD
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Directorate of Physical Training and Recreation

Maj	JF	Reeves, CD	Capt	ET	Peterson, CD
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Directorate General Personnel Plans and Requirements

Lt Col	WW	Turner, CD	Capt	CA	Namiesniowski
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Directorate of Personnel Requirements Control

Lt Col	JM	Sinclair, CD	Maj	VW	Gay
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Inspection Services

Capt F Copping

VICE CHIEF OF DEFENCE STAFF BRANCH

Directorate of Flight Safety

Maj GM Henderson, CD

Directorate of Land Forces Operational Requirements (Land/Air)

Lt Col DL Fromow, CD Maj TW Musgrave, CD

Directorate of Land Forces Operations Requirements (Arms)

Lt Col DC Badenoch, CD Maj C Butler, CD
Maj WB Stoddart, CD Capt GL Younger-Lewis

Directorate of Land Forces Operational Training

Maj RM Hemmingson, CD Maj HA McLellan, CD
Maj RW Roscoe, MC, CD Capt GN Mastine, CD

Directorate of Land Forces Combat Development

Lt Col EA Coolen, CD Capt AGM MacIsaac, CD

Directorate of Reserves (Army)

Capt JAS Watts

Directorate of Survival and Emergency Operations

Maj JE Goodine, CD Maj GA Wood

Comptroller General Branch

Lt Col HH Winter, CD Lt WF Kirk

Directorate General Management, Engineer and Automation

Lt JD Shaver

Standardization

Maj CA Van Allen, CD

CHIEF TECHNICAL SERVICES BRANCH**Directorate Q Operations and Planning**

Lt Col	PDS	Lafferty, CD	Capt	DR	Copcutt, MBE, CD
		Capt	RY	Hutton	

Deputy Quartermaster-General (Equipment Engineering)

Maj	CH	Metcalf, CD
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Defence Research Board

Maj	T	Graham, CD	Capt	AF	Cameron, CD
Capt	JC	Piasetzki, CD	Capt	JD	Polson

COURSES AND DUTIES ESTABLISHMENT**Canadian Defence Liaison Staff (London)**

Lt Col	GO	Brown, CD	Maj	PW	Davis, CD
Maj	GH	Howitt, MC, CD	Maj	MD	Kearney, CD
Maj	RA	Finney, CD	Maj	GH	Reid, CD
Maj	RD	Smyth, CD	Capt	KS	Pickard, CD
Capt	BE	Thorsteinson, CD	Capt	DI	Whalen

Canadian Defence Liaison Staff (Washington)

Lt Col	JM	Reynolds, CD	Lt Col	AB	MacKenzie
Lt Col	JC	Stewart	Maj	JD	Currie, CD
Maj	DE	Gayton, CD	Maj	RD	Gowland, CD
Maj	PB	Martin, CD	Maj	IC	Stewart, CD
Maj	PJA	Tees, DFC, CD	Capt	EH	Martin, CD
Capt	MW	Smith	Capt	JJB	Degrassé

Foreign Colleges

Capt	THC	Goodfellow	(India)
Capt	JMA	Hulsemann	(Germany)

Lieutenants under Instruction

Lt	RW	Boadway	(Rhodes Scholarship)
Lt	HD	Thompson	(Flying duties UK)

Instructor CD College Arnprior

Maj	L	Sanschagrin, CD
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CL 89 Project

Maj	RK	Wallace, CD		
Maj	W	Johnston, CD	(Yuma, Arizona)	

Interservice Development

Maj	GK	Grace, CD		
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Training Service Conditions and Welfare Officer

Maj	RS	Cork, CD		
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CFHQ Training and Liaison Flight

Capt	LU	Thibedeau	Lt	JA	Lowe
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Army Equipment Engineering Establishment

Lt Col	PJ	Patterson	Maj	E	Lasch, CD
Maj	O	Raz, CD	Maj	WJ	Tippett, CD
Maj	GE	Walker, CD	Capt	LJ	Chown, CD
Capt	JA	Crowder, CD	Capt	H	Goertzen
Capt	RR	Howsam	Capt	JE	McCorkell, ED
Capt	WE	McLeod	Capt	DG	Porter
Capt	LH	Robitaille	Capt	HK	Smith
Capt	MFS	Thorpe	Capt	D	Walker
Capt	NA	Wright	Lt	HK	MacKinnon
Lt	L	McKinnon	Lt	AG	Spooner

Directorate Equipment Engineering

Maj	T	Boldt, CD	Maj	JK	Robertson
Capt	F	Lange	Capt	LG	Ramsey, CD
Capt	WT	Thorpe	Capt	CE	Wormell

Canadian Armament Design and Experimental Establishment

Lt Col	JEJ	Caryi, CD	Capt	JJ	Baker
Capt	FR	Rockhill, CD	Lt	GH	Jessup

COMMANDS – AREAS**Training Command**

Lt Col	JK	Ewing, CD	Maj	EY	Adkin, CD
Maj	SV	Lloyd, CD	Maj	JB	McCanse, CD
Capt	NH	Barrett	Capt	DH	Clark
Capt	PW	Colbert, CD	Capt	VG	Waddell
		Capt	DJ	Walters	

Royal Canadian School of Artillery

Col	JS	Orton, MBE, MC, CD	Lt Col	W	Simcock, CD
Maj	JJA	Doucet, CD	Maj	DF	Elkins, CD
Maj	WES	Gamblin, CD	Maj	DW	Jordan, CD
Maj	OR	Monette, CD	Maj	RF	Morrison, CD
Maj	GR	Proux, CD	Maj	RAD	Stokes, CD
Maj	BRH	Watch, CD (UNEF Jan 1966)	Capt	JGR	Bigras
Capt	GW	Bowman, CD	Capt	JP	Bouvette
Capt	AR	Fowler	Capt	LF	Greene, CD
Capt	GM	Guy	Capt	PJ	Graves
Capt	FC	Hummel, CD	Capt	JOA	Maher
Capt	R	Malcolm	Capt	FR	McCall, CD
Capt	AA	McLeod	Capt	JP	McConville, CD
Capt	CMJ	Pachal, CD	Capt	RE	Peterson, CD
Capt	TAW	Robson	Capt	RCD	Rowdon
Capt	JK	Sangster	Capt	JM	Selman
Capt	FE	Seeley	Capt	GM	Shellard
Capt	RV	Thompson	Capt	CH	Van Aggelen, MM, CD
Capt	JF	Woodley, CD	Lt	DB	Bianco
Lt	RJ	Chamberlain	Lt	JD	Chown, CD
Lt	JA	Dussault	Lt	WD	Gowanlock
Lt	DA	Greensides	Lt	DA	Gronbeck-Jones
Lt	RP	Hill	Lt	JA	MacInnes
Lt	AG	Mills	Lt	TG	Power
Lt	G	Prior, CD	Lt	JA	Roszell
Lt	JG	Rouleau	Lt	GE	Trainor
		2Lt	PJ	Tomashewski	

Headquarters Western Command

Capt	GR	Mummery	Capt	GNR	Olson
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Headquarters BC Area

Maj	CA	Buchanan, CD	Maj	DI	Rodway, CD
Capt	SA	Brown, CD	Capt	JD	Hetherington, CD
		Capt	KL	Miller	

Headquarters Alta Area

Maj	RE	Gorham, CD	Maj	JC	Whalley, CD
Capt	JL	Millar, CD	Capt	AH	Parker
		Capt	AR	Weeks, CD	

Headquarters Sask Area

Maj	JR	Milani, CD	Maj	JN	Robertson, CD
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Headquarters Man Area

		Capt	RF	Alessio, CD	
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Headquarters 1 CIBG

Capt AK Beare

Headquarters Camp Shilo

Maj	FE	McLean, CD	Maj	NA	Robertson, CD
Capt	WC	Higgins	Capt	P	Sherrick
		Lt MN			Hargest

Royal Roads

Capt	NF	Hull	Lt	LL	Greig, CD
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Canadian Joint Air Training Centre

Lt Col	SA	Mooney, MC, CD	Capt	VAA	Coroy
Capt	JM	MacFie, CD	Lt	WF	Pollock

Canadian Forces Recruiting Centres

Maj	ML	Williams, CD	Calgary
Capt	IWC	Gibbons	Victoria
Capt	WR	MacNeil	Winnipeg
Lt	WL	Smith	Vancouver
Lt	KS	Toovey	Winnipeg

Headquarters Central Command

Maj	KW	Heans, CD	Capt	DJ	Ker-Hornell, CD
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Headquarters Western Ont Area

Lt Col	WO	Roney, CD	Maj	WE	Lee, CD
Maj	JM	Liston, CD	Capt	CF	Allen, CD

Headquarters Central Ont Area

Maj	EA	Keenan, CD	Maj	TJT	Kennedy, CD
Capt	RA	McClenahan, CD	Capt	MAS	Pittman

Headquarters Eastern Ont Area

Maj	JJ	Donahue	Maj	J	McGregor, CD
Capt	JE	Bulger	Capt	HT	Posten, CD
Capt	TE	Roberts, CD	Capt	HT	Spragg, CD
		Lt JW			Owen, CD

Headquarters 2 CIBG

Capt DC Fitzgerald, CD

Headquarters Camp Borden

Maj BR Salmon, CD

Headquarters Camp Fetawawa

Capt H Senior, CD

EASE

Maj	MC	Buckwell, CD	Maj	JM	Skinner, CD
Maj	WP	Newton, CD	Maj	AW	Curry, CD

NSAWS – NNR – North Bay

Lt Col	JA	Hilliard, CD	Maj	WG	Robson, CD
Capt	GDL	Protz	Lt	WH	Groom
		Lt	WE	Tyo	

JNBC School

Capt JW Bird

Canadian Army Staff College – Staff

Lt Col	MLA	Chabot, CD	Lt Col	JD	Crowe, MC, CD
Lt Col	JOFV	Menard	Lt Col	DG	Struthers, CD
Capt	WM	Hill, CD	Capt	CHG	Reid, CD

Royal Military College – Staff

Lt Col	JM	Brownlee, CD	Capt	JAR	Lecavalier
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Royal Canadian School of Infantry

Maj AWA McDowell, CD

RCAF Staff College

Maj CR Davidson, CD

6 Personnel Depot

Maj	SM	Pinkerton, CD	Lt	FL	Furness
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National Research Council

Capt EW Rance, CD

Canadian Forces Recruiting Centres

Capt	MV	Bezeau	Ottawa
Lt	GA	Birch	Hamilton
Lt	JJ	Brotherton	Kingston
Lt	RJG	Grant	Toronto
Lt	RA	Salisbury	London

Headquarters Quebec Command

Capt	AJ	Lawrence, CD	Capt	GB	Parenteau
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CARDEE

Lt Col	C	Giokas, CD	Maj	RM	Callard
Maj	VJ	Legere, CD	Maj	JEY	Theriault, MC, CD
Capt	RH	Baylis, CD	Capt	KD	Lavender, CD
		Capt	HR	Vye, CD	

R22eR Depot

Lt	JAG	Marceau
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4 Personnel Depot

Capt	JT	Dolan, CD
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College Militaire Royale

Maj	JLP	Belanger, CD
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McGill University

Lt Col	CR	Baker, MC, CD
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Headquarters Mobile Command

Lt Col	JEAJ	Lamy, CD	Maj	RH	Duke, CD
Maj	RN	McKay, CD	Maj	JF	Pendergast, CD
Maj	DF	Ryan, CD	Maj	JAR	Vandal
Maj	WJ	West, CD	Capt	T	Wheeler

Canadian Forces Recruiting Centres

Lt	MEAR	Poirier	Quebec City
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Headquarters Eastern Command

Lt Col	REM	Borland, CD	Maj	DR	Foster, CD
Maj	NM	MacLean	Maj	LR	MacDonald, CD
Maj	PF	Pride, CD	Capt	AW	Nethercott, CD
		Capt	DD	Snow, CD	

Headquarters NB Area

Maj	JT	Carpenter, CD	Capt	JE	Crosman, CD
		Capt JS	Soutter, CD		

Headquarters NS/PEI Area

Maj	SS	Drew, CD	Maj	WH	Green, CD
Maj	DM	MacDonald, CD	Maj	MT	O'Brennan, MC, CD

Headquarters Nfld Area

Lt Col	JE	Pincock, CD	Maj	CME	West, CD
		Capt WB	Rendell, CD		

Headquarters 3 CIBG

Capt	RG	Hurley
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Headquarters Camp Gagetown

Maj	E St JC	Murdoch, MC
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1 Personnel Depot

Capt	GA	Gamblin, CD
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MISCELLANEOUS UNITS**Headquarters 4 CIBG**

Capt	CJB	Bailey	Capt	RG	Hall, CD
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Headquarters Canadian Base Units Europe

Maj	FA	Bussieres, CD	Capt	JR	Wilson, CD
		Capt CA	Justice		(BRIXMIS)
		Capt MJ	Sadler, CD		(Exch Offr 3 RHA)

Canadian Base Units (UNEF)

Lt Col	L	Atack, CD (retires 1966)	Maj	RB	Mallory, CD
Capt	FK	Anderson, CD	Capt	PA	White, CD

Headquarters NORTHAG

Maj	GF	Hammond, CD
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SHAPE

Lt Col	DH	Gunter	ACE Mobile Force
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NSAWS

Lt Col	JSG	Peterson, CD	29	Norad Region	Kansas City
Lt Col	AB	Steward, CD	29	Norad Region	Kansas City
Capt	PJ	Addis, CD	30	Norad Region	Maddison
Capt	WJ	Quinn, CD	25	Norad Region	Tacoma
Capt	GEM	Ruffee, MC, CD	25	Norad Region	Tacoma
Capt	CG	Romhild	30	Norad Region	Maddison
Capt	GG	Ward, MC, CD	29	Norad Region	Kansas City
Capt	GL	Wetherup, CD	29	Norad Region	Kansas City

MCCD – Indo-China

Lt Col	RS	Farnell, CD		Maj	SB	Benton
		Maj	EC	Hipwell, CD		

MCCD – Vietnam

Maj	HT	Haney, CD
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UNTSO – Palestine

Lt Col	LV	Cushing, CD		Maj	MW	Dauphinee
		Maj	AR	Pettigrew, CD		

Ghana

Maj	H	Marston, CD
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Tanzania

Maj	PDA	Harrison, CD
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United Nations Forces – Cyprus

Maj	CAR	Christenson, CD		Capt	JC	Berezowski, CD
		Capt	N	Plishka, CD		

UNIPOM – Pakistan

Maj	JM	Sutherland, CD		Capt	LE	West, CD
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COURSES**GSMO Course – USA**

Capt	WA	Emery
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Canadian Army Staff College

Maj	CF	Burant, CD	Capt	RP	Beaudry
Capt	MD	Calnan, CD	Capt	FA	Davies
Capt	WR	Dawes	Capt	PF	Heenan
Capt	JC	Kennedy	Capt	CEDeL	Panet, CD
Capt	NE	Ramsey, CD	Capt	DJ	Redknap, CD
Capt	ME	Rich	Capt	HD	Saxon
Capt	HJ	Stein	Capt	RL	Strawbridge, CD
		Capt	HR		Wheately

Camberly Staff College

Capt RW Strickland

Canadian Section – SHAPE

Lt Col JP Francis, CD

Artillery Staff Course

Maj	CE	Beattie, CD	Capt	EJ	Adams
Capt	P	Baldaro	Capt	F	Champion-Demers
Capt	DB	Harrison	Capt	LC	Kempffer
Capt	SW	Lobban, CD	Capt	RB	May, CD
Capt	WMJ	Wolfe	Lt	AW	Carnell
Lt	DGH	Syman	Lt	GH	Sawatzki
		Lt	DG		Schott

1 RCHA

Lt Col	DB	Crowe, CD	Maj	LC	Baumgart, CD
Maj	ELK	Cowan	Maj	FJR	Ervin, CD
Maj	RN	Gleason-Beard, CD	Maj	GA	McDonald, CD
Capt	DB	Bauerfind	Capt	WH	Burchill, CD
Capt	GF	Gower	Capt	DB	McGibbon
Capt	AF	Ouellette	Capt	WJ	Ready, CD
Capt	EL	Schrader	Capt	WM	Scott
Capt	AHC	Smith	Capt	RG	Stewart, CD
Capt	WF	Wright	Lt	CJLH	Archambault
Lt	RB	Armstrong	Lt	RJ	Beardmore
Lt	KL	Bennett	Lt	TE	Brewster
Lt	RW	Chaulk	Lt	MF	Clark
Lt	AK	Court	Lt	CO	Gustafson
Lt	MA	Kryzanowski	Lt	FK	Laforge
Lt	BTN	McGrath	Lt	CW	Marmo
Lt	DM	Robb	Lt	GP	Wanhella
2Lt	EB	Beno	2Lt	DH	Brown
2Lt	RA	Cathcart	2Lt	WF	Cuppens
2Lt	MD	Elkins	2Lt	DA	Elrick
2Lt	PW	Forsberg	2Lt	AG	Gallant

1 RCHA (Cont)

2Lt	GA	Gallop	2Lt	RJ	Lees
2Lt	DG	Miller	2Lt	LTB	Mintz
2Lt	RL	O'Banion	2Lt	RS	Wilson

2 RCHA

Lt Col	WE	Sills, CD	Maj	JA	Cotter
Maj	JK	Devlin	Maj	HF	Leggett
Maj	JB	MacKay, CD	Capt	RI	Adams
Capt	EH	Anderson	Capt	WF	Dorey, CD
Capt	RR	Doyon	Capt	JC	Flemming
Capt	RJ	Lovell	Capt	AD	McMillan
Capt	DE	Rousseau	Capt	CR	Simonds
Capt	VA	Troop	Capt	TJ	Walsh
Capt	ET	Whalen, CD	Lt	RL	Armstrong
Lt	JNGG	Boudreau	Lt	JEF	Bryce
Lt	JA	Dorman	Lt	JJ	Fraser
Lt	TJ	Guiler	Lt	MW	Hewes
Lt	GD	Kerr	Lt	AM	Lacey
Lt	JM	MacInnes	Lt	MD	Maher
Lt	HL	Massin	Lt	WL	McMullen
Lt	CJ	Mialkowski	Lt	JDE	Niles
Lt	GJ	Oehring	Lt	AJ	Palmer
Lt	WF	Payne	Lt	BA	Reid
Lt	SS	Takahashi	Lt	JER	Tattersall
Lt	RG	Thomason	Lt	DB	Walton
		Lt	AJ	Wilson	

W Bty 2 RCHA - Cyrpus

Maj	WD	Creighton, CD	Capt	KA	Smee
Lt	H	Finestone	Lt	MJ	MacDonald
Lt	JW	Mortlock	Lt	AR	Wignall

3 RCHA

Lt Col	JEG	DeDomenico, CD	Maj	EJ	Berris, CD
Maj	FS	Card, CD	Maj	LL	Charest, CD
Maj	JG	Henderson, CD	Maj	NM	Pettis, CD
Capt	ER	Barnes	Capt	GV	Cavey
Capt	WB	Cheadle, CD	Capt	RM	Gervais
Capt	SP	Hunter, CD	Capt	RK	James
Capt	G	Logan	Capt	JG	MacGregor
Capt	CI	Moggridge	Capt	N	Mulikow, CD
Capt	N	Pyrch	Capt	JH	Rennie
Capt	JJG	Tanguay	Lt	RJ	Bird
Lt	TF	Cawsey	Lt	OL	Greenizan
Lt	RW	Haig	Lt	JK	Hilton
Lt	RA	Hosegood	Lt	TT	Itani

3 RCHA (Cont)

Lt	DG	Knight	Lt	RE	Letts
Lt	DA	Lockridge	Lt	RW	McKinlay
Lt	MW	McQuinn	Lt	GW	Oliver
Lt	CD	Pollard	Lt	DR	Robertson
Lt	RB	Rogers	Lt	RB	Wark
2Lt	MF	Burns	2Lt	JF	Bryan
2Lt	CH	Cant	2Lt	JP	Chartres
2Lt	HC	Ellery	2Lt	A	Cuniff
2Lt	DB	Fenny	2Lt	JA	Groulx
2Lt	RP	Hitchman	2Lt	RJ	Lucas
2Lt	JW	Nixon	2Lt	KG	Stowell
2Lt	GM	Walker	2Lt	WR	Wilson

4 RCHA

Lt Col	DW	Francis, CD	Maj	DR	Baker, CD
Maj	FW	Bayne, CD	Maj	RP	Bourne, CD
Maj	RG	Heitshu, CD	Maj	A	Sosnkowski
Capt	FC	Ayers	Capt	RV	Carrier
Capt	JP	Cheevers	Capt	TAD	Fetterly
Capt	SD	Green	Capt	FC	Haynes
Capt	GR	Hirter	Capt	NW	Johnstone
Capt	LR	Jurgensen	Capt	DW	Wellsman
Lt	MD	Apedaile	Lt	ICM	Belton
Lt	ABC	Bowles	Lt	NH	Connolly
Lt	KR	Bruce	Lt	BG	Earl
Lt	VR	Lewis	Lt	PR	Learmonth
Lt	WJM	Walsh	Lt	WR	Watling
2Lt	WJ	Campbell	2Lt	JA	Davidson
2Lt	JP	Davies	2Lt	HRJ	Eamor
2Lt	DR	Ferguson	2Lt	FH	Hansford
2Lt	DR	Hopper	2Lt	BM	Lees
2Lt	JR	Pleasance	2Lt	RJM	Selman

1 Loc Bty RCA

Maj	JO	Ward, CD	Capt	JC	Hipfner
Capt	JE	Howes	Capt	JA	Parnham
Capt	JA	Poh	Lt	LC	Adkins
Lt	AP	Carroll	Lt	RG	Elrick
Lt	JKC	Fraser	Lt	WR	Johnston
Lt	JCG	LaPierre	Lt	JA	McKay
Lt	GDC	Scott	Lt	GR	Smith
		2Lt	CP		Czartoryski

1 SSM Bty RCA

Maj	AC	Moffat, CD	Capt	MC	Brown
Capt	AV	Harris	Capt	JL	Mantin, CD

1 SSM Bty RCA (Cont)

Capt	CA	Moogk		Capt	DE	Stothers
Capt	AM	Zamoyski, CD		Lt	DJ	Beatty
Lt	WE	Gordon		Lt	DW	Hawthorne
Lt	JE	Hawthorne		Lt	JM	Hoffman
Lt	GF	Ireland		Lt	JM	Kavanagh
		Lt	HA	Walinsky		

2 SSM Trg Bty RCA

Maj	HP	Stickley, CD		Capt	HL	Davis
Lt	RC	Bowles		Lt	LA	Branum
Lt	GA	Decker		Lt	RM	Hyslop
		Lt	KD	Varey		

Instructional Staff

Capt	AJ	Casey		Sask Area
Capt	JR	Hartlen		NS/PEI Area
Capt	JR	Hutchison, CD		East Ont Area
Capt	ST	Klubi, CD		Alta Area
Capt	LH	McMorran, CD		West Ont Area
Capt	M	Pisnook		West Ont Area
Capt	JA	St Louis		East Que Area
Capt	RT	Shawcross		NB Area
Capt	M	Shewchuk		West Ont Area
Capt	FO	Willmore, MM, CD		BC Area
Lt	TH	Argue		Man Area
Lt	GR	Conway, CD		Cent Ont Area
Lt	AK	Howie, CD		Man Area
Lt	WA	Stenton		East Ont Area

Officers on Retirement Leave

Lt Col	DW	Blyth, CD		Lt Col	DJ	Janigan, CD
Lt Col	JFLP	LaPlante		Lt Col	T	Moore, CD
Lt Col	EA	Olmsted, CD		Lt Col	WH	Salter, CD
Maj	JM	Brady, CD		Maj	RR	Cottingham, CD
Maj	RM	MacGibbon, CD		Maj	AB	McKinnon, MC, CD
Maj	RJ	Middleditch, CD		Maj	GD	Mitchell, MC, CD
Maj	CDR	Rands, CD		Maj	JT	Redmond, CD
Maj	GT	Spurr, CD		Capt	RH	Baylis, CD
Capt	AG	Ford, CD		Capt	JA	Neilson, CD
Capt	JA	Murray, CD		Capt	CEM	Peyton, CD
Capt	FD	Reid, CD		Capt	MA	Rycroft
Capt	RJ	Staples, CD		Lt	FG	Powell, MM, CD

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