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CANADIAN ARMY JOURNAL

The aim of the Canadian Army Journal, which is published quarterly by the Directorate of Military Training under authority of the Chief of the General Staff, is to provide officers of the Canadian Army with information designed to keep them abreast of current military trends, and to stimulate interest in military affairs. The views expressed by authors are not necessarily those of the Department of National Defence.

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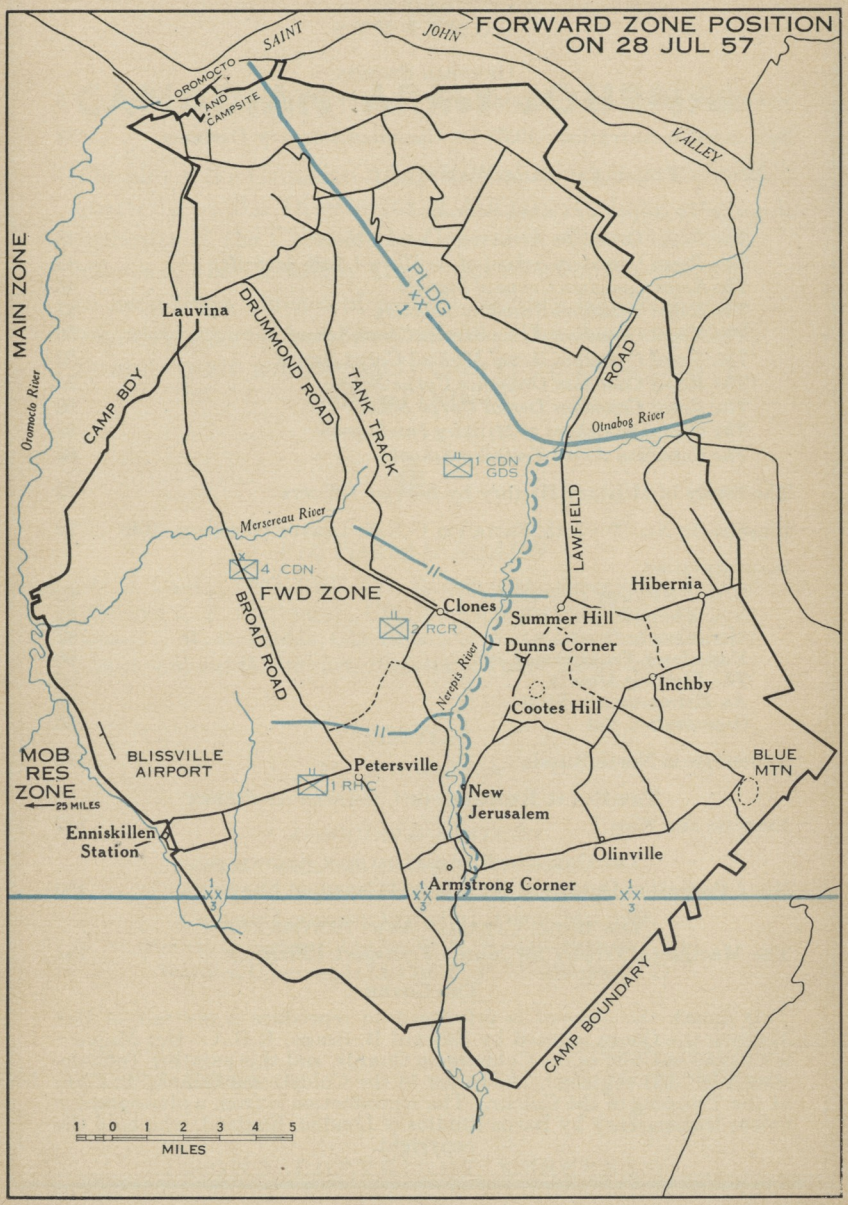
THE COVER

This month the *Journal* is privileged to reproduce a portrait of Her Majesty the Queen painted by Edward B. Seago, R.B.A. Her Majesty is Colonel-in-Chief of the Coldstream Guards, and this painting, commissioned by that regiment, shows her in the Coldstream Guards' uniform at the Trooping of the Colour. The reproduction is from a photographic colour transparency by Baron Studios of London, England, who hold the copyright.


FORWARD ZONE POSITION ON 28 JUL 57
SAINT JOHN VALLEY
OROMOCTO AND CAMPSITE
MAIN ZONE
Oromocto River
CAMP BDY
Lauvina
DRUMMOND ROAD
TANK TRACK
PLDG XX 1
ROAD
Otnabog River
1 CDN GDS
LAWFIELD
Mersereau River
4 CDN
FWD ZONE
BROAD ROAD
Clones
2 RCR
Summer Hill
Dunns Corner
Hibernia
Inchby
Nerepis River
Cootes Hill
MOB RES ZONE
25 MILES
BLISSVILLE AIRPORT
Petersville
1 RRC
New Jerusalem
BLUE MTN
Enniskillen Station
Olinville
Armstrong Corner
XX 2
XX 3
CAMP BOUNDARY
1 0 1 2 3 4 5
MILES

EXERCISE EASTERN STAR

By

Lieut.-Colonel W. A. Milroy, DSO, GSO 1 at Headquarters, Eastern Command, Halifax, N.S.

Warfare under nuclear conditions was practised by the 1st Canadian Infantry Division during Exercise Eastern Star held at Camp Gagetown, N.B., 27 July to 1 August 1957. The Division is commanded by Major-General J. M. Rockingham, CB, CBE, DSO, ED.

The exercise was designed to train troops:

1. In the holding of a forward zone based on a water obstacle.
2. In the attack.

The aim of this article is to outline briefly the organization for, and conduct of, the exercise.

The exercise was one-sided, with a controlled enemy. A third brigade headquarters was simulated. "W" Light Battery, 4th Regiment, Royal Canadian Horse Artillery (4 RCHA), was the only divisional unit made available to Eastern Command for administrative purposes.

Setting

In order to reduce the amount of "reading in" required of units, a common setting for the Divisional Study Week Exercise, Divisional Exercise Yo-Yo, and Exercise Eastern Star was evolved by Headquarters 1st Canadian Infantry Division and Headquarters Eastern Command.

For this setting, New Brunswick and Eastern Maine were designated Blueland, while Nova Scotia was designated Fantasia. In order to give the two countries a border across which an attack could be made, the Chignecto Bay and Minas Basin were filled in and additional roads added.

The river required for the setting was produced by making the Nerepis River (which flows north and south through Camp Gagetown) a major river ten feet deep and from forty to eighty feet wide, running from Grand Lake to St. John. The St. John River was considered to be a valley.

Fantasia was pictured as threatening Blueland to such an extent that Canada moved the 1st Canadian Infantry Division and elements of the Royal Canadian Air Force into Blueland. Fantasia treated

Canadian Army Photograph

Major-General E. C. Plow, CBE, DSO, CD (left), General Officer Commanding Eastern Command, and Major-General J. M. Rockingham, CB, CBE, DSO, ED, Commander of the 1st Canadian Infantry Division, confer during Exercise Eastern Star. Major-General Plow was Exercise Director.

this as an act of aggression and attacked Blueland on 21 June 1957. The repulse of the first attack, which reached the Nerepis River, was studied in Exercise Cougar, while a later thrust towards the Welsford Gap was the setting for the Divisional Exercise Yo-Yo. Exercise Eastern Star opened with the Blueland Army falling back to a line running from Chatham to Grand Lake, thence along the Nerepis River, with the object of fighting a defensive battle which would enable Blueland to destroy major enemy forces and go on to the offensive. 1st Canadian Infantry Division, which had been in army reserve in the area of Fredericton, was ordered to take up a defensive position along the Nerepis River in the area of Camp Gagetown.

Organization

Major-General E.C. Plow, CBE, DSO, CD, General Officer Commanding Eastern Command, was Exercise Director, while the Director General of Military Training, Brigadier C. D. Ware, DSO, CD, was Deputy Director and Chief

Observer. Brigadier M. P. Bogert, CBE, DSO, CD, Commandant of the Canadian Army Staff College, was Chief Umpire.

The following were required to conduct the exercise:

(a) Control Headquarters to represent Headquarters 1st Blueland Corps, and to control the enemy force.

(b) An Umpire Organization.

(c) Enemy Force.

(d) An organization to handle up to 50 visitors and 30 members of the press.

(e) An Observer Organization.

(d) An air cell to control up to 40 sorties a day provided by the RCAF, four helicopters and one RCAF plane for photo reconnaissance.

(e) A unit to simulate nuclear artillery.

(f) A Skeleton Headquarters to represent the third brigade in the Division.

The above were grouped for purposes of administration and organization into an organization designated as Eastern Star Group.

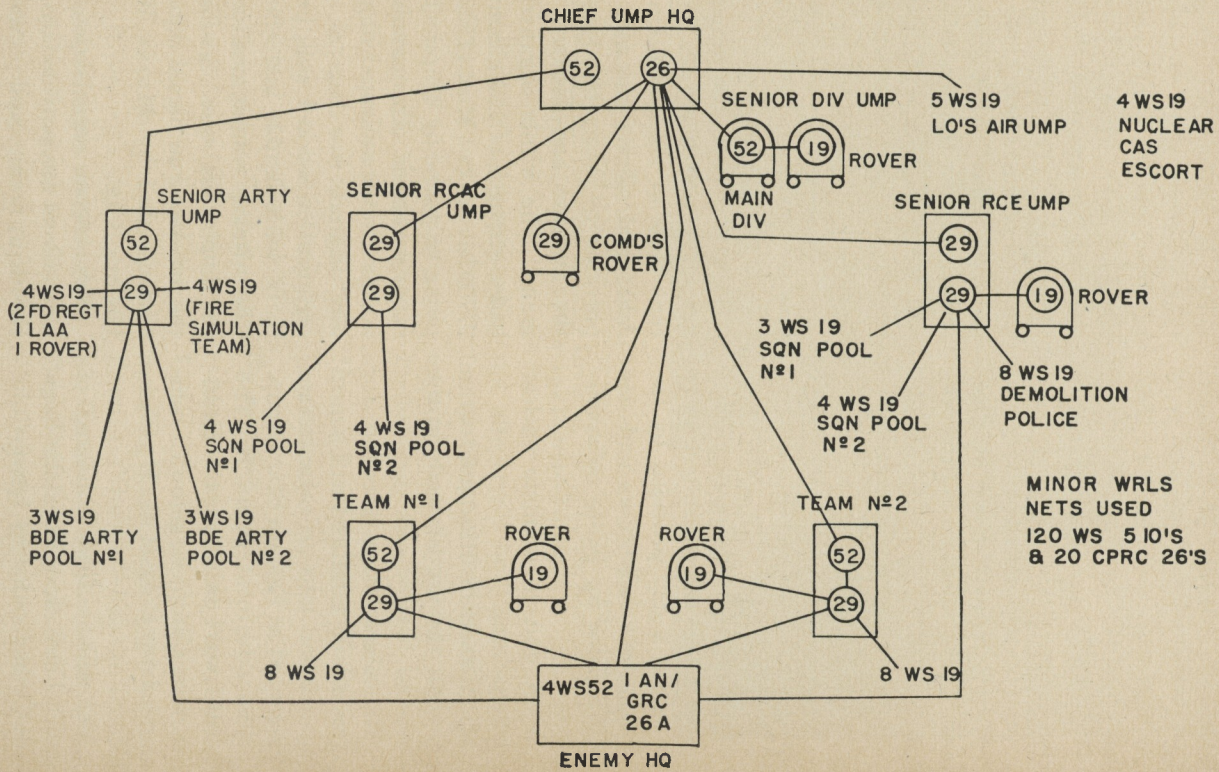
The administration for the Group was provided by Headquarters Camp Gagetown, commanded by Colonel C. H. Cook, ED.

The enemy force consisted of the 2nd Battalion, Royal 22e Régiment, commanded by Lieut.-Colonel R. H. LaHaie, MC, an *ad hoc* tank squadron of 12 Shermans; a wireless unit capable of monitoring the Division's wireless transmissions, and an Advanced Workshop Detachment. The tank squadron was composed of one troop from the 2/8 Canadian Hussars, one troop from the Halifax Rifles and one troop made up of personnel from the Prince Edward Island Regiment and the 1/8 Canadian Hussars. The squadron was commanded by Captain B. M. Milligan, CD, of the 1/8 Canadian Hussars.

As in the past, the umpire organization was based on the current class of the Staff College. Additional officers and men were provided by Army Headquarters, the Division and Eastern Command. The whole organization had a strength of 126 officers and 277 other ranks. Most of the umpiring was done by Umpire Teams on an area basis. The organization is shown in the accompanying wireless diagram (see page 6). The organization worked well, proving to be both flexible and effective. The wireless communications for the umpire net were organized by the 1st Airborne Signal Squadron commanded by Major W. G. Holmes, CD.

The observer organization of fifteen officers was provided by Army Headquarters, and consisted

EASTERN STAR MAIN UMPIRE WIRELESS NETS



mainly of the directors or deputy directors of Directorates at Army Headquarters. It operated under the direction of the Deputy Director of the exercise.

The air cell headed by Squadron Leader G. S. Hogg, RCAF, and officers from Canadian Joint Air Training Centre, Rivers, Man., controlled all the air support provided for the exercise.

"X" Battery, 3 RCHA, was issued with four 155-mm. howitzers and prime movers, and was organized to simulate two 8-inch howitzers and two Honest John rocket launchers with the object of giving the divisional staffs some idea of the problems of moving, deploying and camouflaging such equipments, and the time details required to bring them into action.

It was not possible to meet all the requirements for Signals personnel and drivers from the Regular Army. Additional personnel were produced by the Militia as follows:

(a) 5th Signal Regiment of Charlottetown, Prince Edward Island, commanded by Lieut.-Colonel K. M. Johnston, provided 87 signallers. The unit was issued additional vehicles and equipment in April to assist with this task.

(b) No. 1 Column, Royal Canadian Army Service Corps (Militia), commanded by Major F. Munro of Halifax, with companies in Halifax, Moncton and Saint John, was given the task of providing 50 drivers. This was accomplished by integrating the companies with the RCASC detachment in Camp Gagetown over a period of two weeks.

It is interesting to note that when the 5th Signal Regiment turned in the 39 wireless vehicles that it had been issued for the exercise, the total shortages amounted to only $3.87.

The whole organization, not including the 2nd Royal 22e Régiment, consisted of 259 officers and 647 other ranks, and required 207 vehicles and more than 185 wireless sets.

Assumptions

The following assumptions were made for the exercise:

(a) Infantry battalions were equipped with Armoured Personnel Carriers (APCs) with the amphibious characteristic of the M59.

(b) For the defensive phase of the exercise the Second Battalion, the Black Watch (Royal Highland Regiment) of Canada (2 RHC), were considered to be a reconnaissance regiment, the 17th Hussars.

(c) The Fantasian force was equipped with amphibious APCs,

and a limited number of amphibious tanks.

Exercise

On 25 July the Exercise Director, acting as Commander of 1st Blueland Corps, gave his orders for the occupation of the new defensive line on the Nerepis River. At last light on the 27th of July, the 1st Canadian Infantry Division commenced moving into position. The Division took up a position with its forward zone occupied by the 4th Brigade based on the Nerepis River. 2 RHC, acting in its reconnaissance role, was east of the river. The skeleton brigade occupied a main zone position behind the Oromocto River, and the mobile reserve of two battalion groups was theoretically located in the vicinity of Harvey Station. Because it was not possible to locate physically troops outside Camp Gagetown, the mobile reserve battalions were in fact located on the Blissville Airport and in the area of Lauvina. For the same reason, the Divisional Administrative area was deployed in the northern portion of the camp.

The position was occupied by first light on the 28th of July, and soon after Fantasian leading elements came in contact with the divisional reconnaissance force. The enemy advanced with a great deal of vigour with the result that the divisional commander ordered the reconnaissance force back across the Nerepis River at 0930 hours. During the remainder of the 28th the Fantasians patrolled across the river along its whole length. A raid supported by a nuclear missile was launched against South Clones.

During this period the Division fired one nuclear missile north of Summer Hill which destroyed the best part of an enemy battalion.

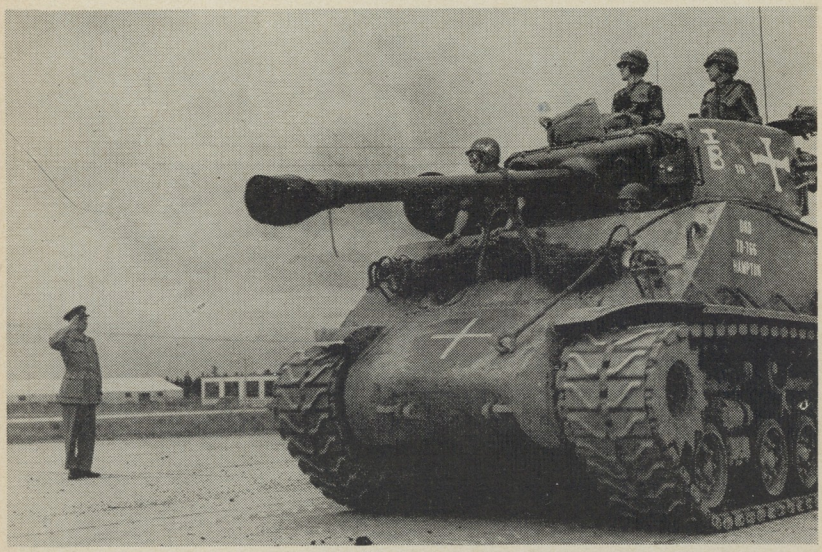
In the early hours of the morning of the 29th of July the Fantasians launched an attack along the whole front. The first attack commenced before first light and was aimed at Clones. This attack was held up by minefields, but with the assistance of a nuclear missile, the Fantasians were able to advance to a point some 3000 yards west of Clones by 1100 hours.

At 0700 hours the Fantasians attacked in the south towards Petersville. By 1000 hours a good sized bridgehead had been formed and at that time two nuclear missiles were exploded in the area of Petersville to clear the way for an airborne drop, which took place at 1030 hours. The airborne force, simulated by one C-119 dropping 40 troops, was quickly attacked and eventually destroyed, but as a result of its actions the Fantasians were able to reach Petersville

by 1200 hours. At 1300 hours a "Stand Fast" was ordered in order to allow the Division to concentrate its mobile reserve to mount a counter-attack. The battalion from the northern part of the main zone was moved forward to the area of Lauvina to block the penetration on the Drummond Road. The 17th Hussars secured the Petersville corner and advanced up towards South Clones. The 3rd 22e advanced down the Broad Road to below Petersville, swung left and cleared towards the Nerepis. The Second Battalion, Canadian Guards, then moved up to the river on the right of the 3rd 22e.

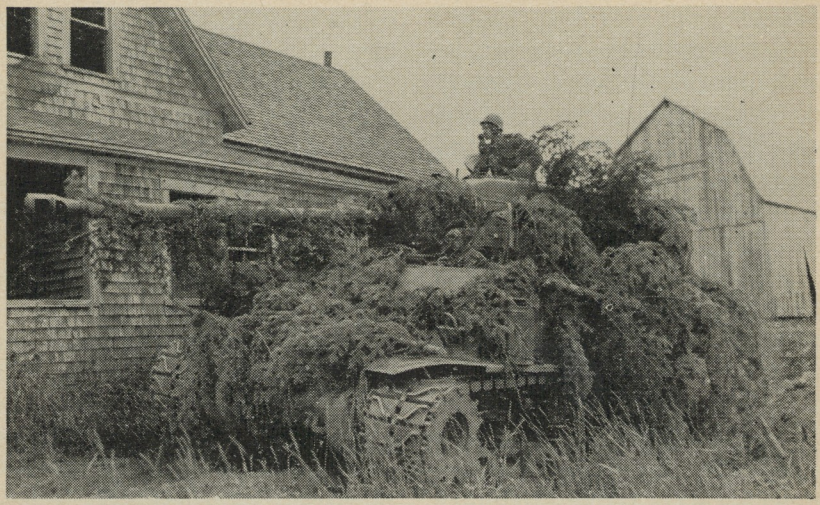
Once the river line was secured the 3rd 22e turned north, and aided by 17th Hussars, attacked the flank of the Fantasian positions around Clones. The Fantasians were finally forced to withdraw back over the river shortly after midnight.

At the same time the other penetrations along the corps front were destroyed so effectively that the corps commander decided that it was time to mount a counter-offensive. 1st Corps was, therefire, ordered to launch an attack



Canadian Army Photograph

Exercise Director Major-General E. C. Plow takes the salute as a Sherman tank used by the Fantasian "enemy" forces moves out to the training area. The crew are members of the Militia.



Canadian Army Photograph

A Fantasian Army tank covers an approach route during the exercise.

Canadian Army Photograph

"Enemy" paratroops are shown aboard a C-119 aircraft enroute to attack the defensive positions of the 1st Canadian Infantry Division.

Canadian Army Photograph

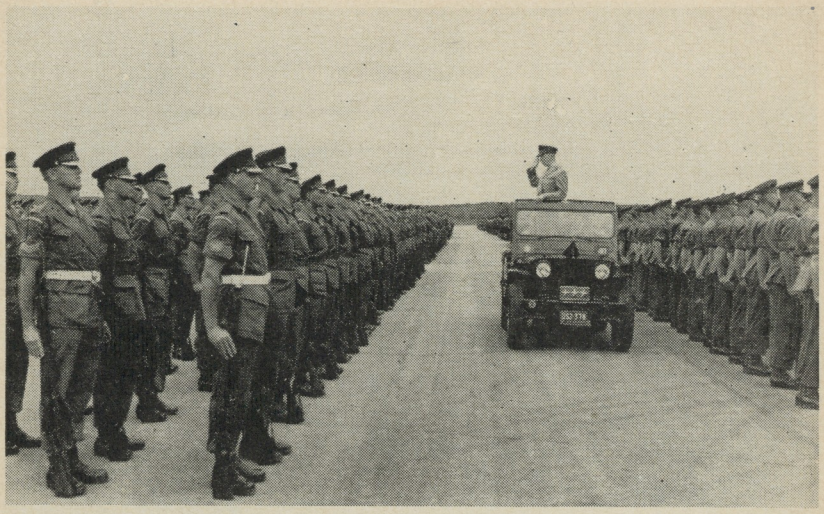
This "enemy" paratrooper was captured when members of the Royal 22e Régiment, acting as enemy troops, carried out an airborne attack on 1st Canadian Infantry Division positions during the exercise.

on the night of the 31st of July with the ultimate object of driving the enemy out of Blueland.

During the 30th and 31st the Fantasians continued to patrol along the Nerepis, while the Division built up 3 Brigade for the attack by moving one more battalion into the forward zone. For the attack 3 Brigade consisted of, north to south, the 1st Battalion, Canadian Guards; the 2nd Battalion, the Black Watch (Royal Highland Regiment) of Canada; the 3rd Battalion, Royal 22e Régiment; and the 2nd Battalion, Canadian Guards.

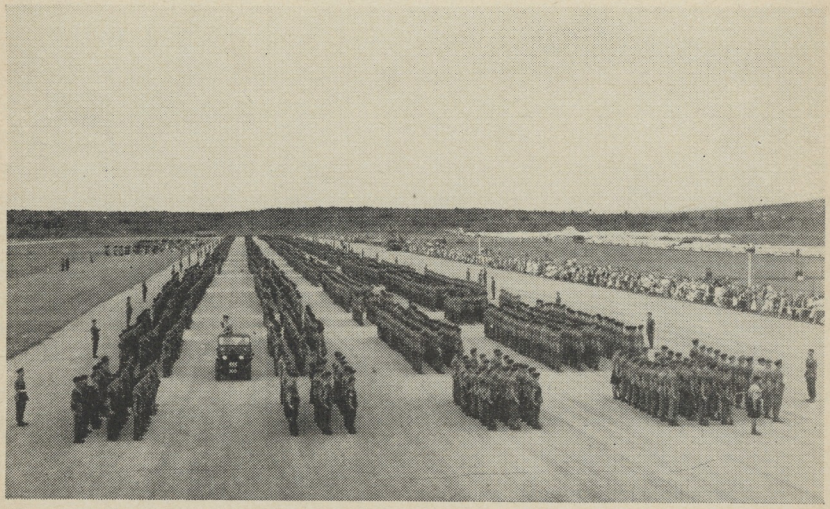
The attack was launched at 2200 hours, 31 July, by the two flanking battalions supported by nuclear strikes east of Armstrong Corners and north of Summer Hill. At 2230 hours the centre battalions exploited nuclear strikes on Dunns Corner, Cootes Hill and New Jerusalem, and advanced to seize the Lawfield Road. As soon as this bridgehead was secured, eight crossings over the river were begun

(*Continued on page 100*)



Canadian Army Photographs

These two photographs were taken at the Dominion Day parade of the 1st Canadian Infantry Division during the concentration at Gagetown. They show Lieut.-General H. D. Graham, CBE, DSO, ED, CD, Chief of the General Staff, inspecting the troops.



SUMMER CONCENTRATION — 1957

By

Lieut.-Colonel A. S. A. Galloway, ED (The Regiment of Canadian Guards), GSO 1, 1st Canadian Infantry Division

The 1957 Summer Concentration of 1st Canadian Infantry Division began the first week in June when advance parties moved into Camp Gagetown, N.B., from their various home stations. By 13 June Divisional Headquarters was in operation with the main bodies moving into camp during the following week. The Divisional Artillery, of course, had been complete in camp for some days, engaged in shooting and deployment exercises.

On 20 July the Divisional TEWT* "Cougar", a continuation of the Study Period of the previous January, was conducted by the General Officer Commanding, Major-General J. M. Rockingham, CB, CBE, DSO, ED, with four syndicates. These syndicates were headed by Brigadier R. M. Bishop, OBE, ED, CRA; Brigadier D. C. Cameron, DSO, ED, Commander, 4th Canadian Infantry Brigade; Brigadier D. Menard, DSO, CD, Commander, 3rd Canadian Infantry Brigade; and Lieut.-Colonel S. V. Radley-Walters, DSO, MC, CD, Commanding Officer, 1/8 Canadian Hussars. Syndicates were composed of unit Commanding Officers, Officers Commanding smaller units and senior formation Staff Officers.

The TEWT set the pattern for the summer's activities, the narrative leading up to Exercise Yo-Yo and Exercise Eastern Star, both scheduled for late in July. The aim of "Cougar" was to study the Defence and the Attack in the Zonal Concept designed for nuclear war. Following acceptance of "study purpose" solutions, the brigade and battalion commanders in turn conducted the same TEWT with their own officers later in the week. Thus the whole pattern of the Zonal Concept got down to the lowest level of officer command and a standard approach to this concept of defence and attack was arrived at throughout the Division.

The fourth requirement of TEWT "Cougar" was held over until 2 August. This requirement was concerned with the possible

* *Tactical Exercise Without Troops.*

reorganization of the infantry division to meet the new demands of nuclear warfare with special regard to the Zonal Concept. The problem having been studied academically during the TEWT, the realistic conditions of Exercises Yo-Yo and Eastern Star confirmed opinions on the need for improved or modified equipments, and on the need for the reorganization of certain units and sub-units. At the same time, many of the present doctrines and organizational and equipment policies were found by this additional experience to be quite adequate and indeed excellent, even under the changing conditions met with on the battlefield.

On 1 July the Divisional Parade took place on the Blissville Airfield with the Chief of the General Staff, Lieut.-General H. D. Graham, CBE, DSO, ED, CD, taking the salute. The CGS reviewed some 10,000 men on parade from a jeep which moved along the ranks at a fair speed, taking 20 minutes to complete the review. Following an address in both English and French, Lieut.-General Graham proceeded to a saluting base and watched the Division march past. Unfortunately, a number of Commanding Officers were not present as they were among the Canadian observers attending an atomic explosion being carried out at Camp Desert Rock, Nevada. Consequently a number of units marched past under their Seconds-in-Command.

Exercise Spitfire was the most notable feature of the 1957 Concentration, at least from the infantry soldier's point of view. In the period 3 July to 19 July a total of twenty-seven rifle companies were put through an identical field firing exercise under the personal direction of the GOC. This exercise simulated a rifle company in the attack with artillery and tank support and the support of the battalion heavy weapons. Each company mounted the attack twice, first as a "dry run", second as a live-firing attack. The axis of attack was a mile and a half long. The plan of battle was a simple company attack against a dug-in enemy platoon, with a right-flanking assault.

Silhouette targets were placed on the objective to represent the enemy. Once the position had been captured the "successful" troops had to face a "determined" counter-attack, thus being made to realize that mere seizing of an objective does not necessarily mean the end of the fight. This counter-attack was cleverly simulated by groups of pop-up silhouette targets, which by explosive means sprang into view just as the troops

were reorganizing on the objective. Quick fire orders at the section level were required here and in each case the counter-attack was beaten off, as the many holes in the silhouette targets readily testified. In addition, the Company Commander called down Defensive Fire (SOS) from his supporting field artillery and light troop. The tanks also engaged defensive fire tasks with their main armament. The pop-ups were designed by Major W. E. Blake, SORE 2, HQ 1st Canadian Infantry Division, manufactured by No. 8 Works Company RCE, and operated by the supporting field squadrons of the brigades concerned.

To the younger soldiers the noise of battle and the weight of support which they can expect in war was a revelation. The pre-H Hour artillery concentrations, the mortar fire, the 20-pounders and machine-guns of the tanks all added to the din, churning up columns of dust and smoke combined with the whining and cracking overhead. The infantry, as they closed on their objective with the bayonet, supported themselves forward with their own "rattle of musketry" as rifles and light machine-guns

Canadian Army Photograph

A rifleman provides protective fire for a companion who is sighting his anti-tank weapon on the "enemy". Low brush in front of the position provides natural camouflage against ground observation by the enemy.

Canadian Army Photograph

Major-General J. M. Rockingham, CB, CBE, DSO, ED, (centre) Commander of the 1st Canadian Infantry Division, talks by telephone with his safety officer, Brigadier R. M. Bishop, OBE, ED, who is on top of the tower. Troops manoeuvring under live fire can be seen from this tower, and in an emergency firing can be stopped immediately.

Canadian Army Photograph

Advancing infantry receive close fire support from a troop of tanks as they near the "enemy" objective. Behind the troops are umpires and safety officers.

poured a stream of lead on the unfortunate "enemy".

Keen competition ensued as to the results of each company's own rifle and LMG abilities. At the end of each company attack the holes in the counter-attacking "enemy" were counted. Each succeeding day's assaulting company made every effort to better the score of the previous companies and the intense interest which mounted in this respect, day after day, added much to the enjoyment as well as the training value of the exercise. Unfortunately, due to variables such as visibility, the results of artillery high explosive and tank fire, which also took a toll of the targets, the final scores were open to good-natured dispute and no "winner" was officially announced. (Off the record, it is rumoured that both the 1st Battalion of the Black Watch (RHC) and the 3rd Battalion of the Royal 22e Régiment have their own private opinions.

Safety measures were rigid and one slightly sprained ankle was the only mishap, despite the fact that every rifle company in the division went through the course and tons of lethal ammunition fell in the area. Brigadier R. M. Bishop, OBE, ED, Commander of the Divisional Artillery, was Chief Safety Officer. He directed the safety plan from atop a high tower with an elaborate wireless and telephonic communications network.

The value of this exercise was great, for not only did the infantry and supporting arms reach a high degree of tactical and weapon training, but the GOC, brigade and battalion commanders had an excellent opportunity to assess the

Canadian Army Photograph

Nuclear warfare calls for more and deeper digging by infantrymen to protect them from the blast of an explosion. Next to his rifle, the shovel is still the infantryman's best friend.

troops in action. At the same time the GOC and brigade commanders were able to continually "show themselves" to the troops in a manner that is not normally possible.

During July battalion and brigade all arms exercises were conducted, culminating during 22-24 July in the Divisional Exercise Yo-Yo. This exercise was designed to practise the Division in movement drills, traffic control, harbouring, camouflage and maintenance of communications under conditions of nuclear warfare. It was a one-sided exercise with a skeleton enemy and saw the Division advance to contact on two axes. The GOC directed the exercise with Colonel B. F. MacDonald, DSO, Director of Armour, as Deputy Director. Unfortunately, or fortunately, depending on the point of view, the weather was appalling and the night move was done during the blackest of nights with exceptionally bad conditions for wireless communications. Under these terrific handicaps the two brigades carried out their moves, meeting enemy outposts along the routes. Some confusion resulted, though not without many lessons learned at all levels of command and control. The lack of laterals and the close country on either side of each axis made several of the aims of the exercise most difficult to achieve. However, from these difficulties many ideas emerged and Exercise Yo-Yo, like many a wartime experience, gave

room for considerable soul-searching as to ways and means of overcoming difficulties in the future. It must not be overlooked, however, that despite the troubles which militated against the smooth control hoped for, the move was executed in a manner which none but highly-trained troops could carry out. The Division moved against the enemy, fought him and withdrew "according to plan".

On 25 July a Battle Area Surveillance demonstration conducted by Lieut.-Colonel R. H. Noble, MBE, of the Directorate of Military Intelligence, Army Headquarters, Ottawa, and certain civilian technicians, was witnessed by many of the officers of the Division. It proved most successful and provided indication of how many of the modern battlefield problems can be overcome in future warfare by the devices demonstrated.

Apart from the main exercises a great deal of specialist training and experimentation took place throughout the concentration.

No. 1 Air Observation Post Flight, RCA, was most successful in the taking of oblique photographs which were extremely valuable to formation commanders and

Canadian Army Photograph

Members of the 1st Airborne Signals Platoon and the Royal Canadian Navy prepare cable for dropping by helicopter at Camp Gagetown.

staff during the planning and conduct of the exercises. No. 1 Light Anti-Aircraft Regiment, RCA, were deployed operationally during most of the concentration and "took on" the Sabres and photographic aircraft supporting the exercise. Experiments were also carried out with searchlights in indirect lighting roles and star shell and night live-firing tests were held as an adjunct to Exercise Spitfire.

The construction of bridges and tactical roads by No. 1 Field Engineer Regiment, RCE, was a continuing commitment which gave the Sappers first-class training as well as facilitating movement within the Divisional area.

The Royal Canadian Army Service Corps was busy at the beginning and end of the Concentration, transporting troops about the country from and to trains, to and from the various accommodation areas in TCVs, as well as supplying the Division throughout the concentration.

The Royal Canadian Electrical and Mechanical Engineers' workshops kept up with the repair problems and managed to have a high percentage of vehicles on the road at all times.

This year, due to the fact that the Gagetown Station Hospital was in operation, both Field Ambulances were able to carry out tactical training with the formation, whereas in past years one Field Ambulance had to operate as a static hospital.

Infantry units who have no facilities for the firing of the 106-mm. recoilless rifle at their home stations were able to fire this anti-tank weapon within the camp area, and thus improve the individual training standards of their troops. In addition, Armoured Personnel Carrier drills were worked out and practised by four battalions which were allotted ¾-ton trucks for this purpose.

The 1st Canadian Infantry Signal Regiment not only had more than its share of Corps training in the normal turn of events, but also experimented with such novelties as line-laying from helicopters and with micro-wave.

Aircraft were used in the brigade and Divisional exercises as enemy, thus forcing the participating troops to train themselves to operate at all times against an enemy with air superiority.

By 27 July the Division had flexed its muscles and groomed itself to the point where it was capable of entering Eastern Command's Exercise Eastern Star.

From a Divisional standpoint the concentration was a decided success.

ARTILLERY PRACTICE CAMP AT GAGETOWN—1957

The Royal Canadian Artillery of the First Canadian Infantry Division held its practice camp for the first time at Camp Gagetown in June 1957. Previously, clearing and construction work had prevented the use of the ranges for this purpose. Clearing has now been completed and the exercises carried out indicated the ranges are excellent. Large areas are available for manoeuvre and firing practice on a wide variety of terrain.

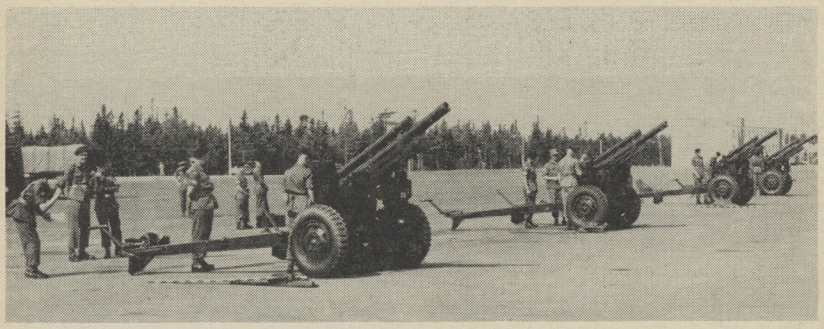
The units taking part in the practice camp were under command of Brigadier R. M. Bishop, OBE, ED, Commander Royal Canadian Artillery, First Canadian Infantry Division. The following units took part in the practice camp:

Headquarters Royal Canadian Artillery, First Canadian Infantry Division; First Regiment, Royal Canadian Horse Artillery; Third Regiment, Royal Canadian Horse Artillery; W Light Battery, Fourth Regiment, Royal Canadian Horse Artillery; First Light Anti-Aircraft Regiment, Royal Canadian Artillery; First Air Observation Post Flight, Royal Canadian Artillery; Divisional Survey Troop.

Aim

The aim of the practice camp was to exercise all ranks of the various artillery units in operational drills and procedures to ensure units were prepared to fulfil their operation role.

To ensure the maximum value



Canadian Army Photograph

Inspection of the guns of "J" Battery, 3rd Regiment, RCHA, the ultimate winners of the Challenge Trophy for Battery Gun Practice.

was gained from the limited firing period and ammunition available, a series of exercises were conducted ranging from battery exercises up to full divisional artillery exercises.

Survey

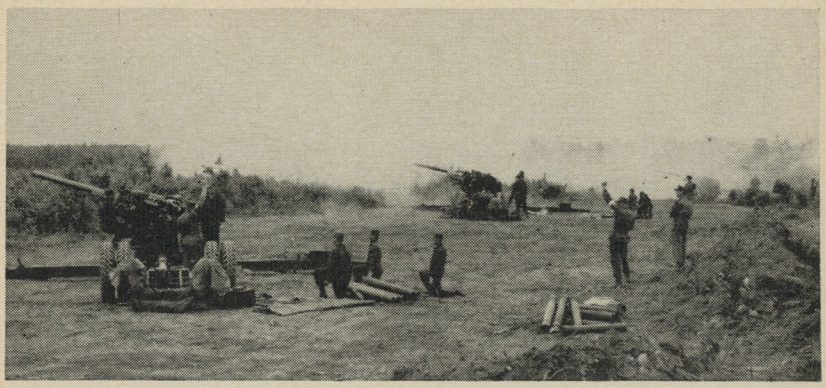
The divisional survey troop taking part this year in practice camp was an *ad hoc* organization, made up of survey elements from 1 Locating Battery, Royal Canadian Artillery, First Canadian Infantry Division, and the survey sections from the two field regiments training at Camp Gagetown. Under conditions of nuclear warfare the artillery batteries must be dispersed. The result is that large distances will be normal between batteries. Such distances are beyond the capability of the normal regimental survey section. During the Second World War and Korea, the survey troop, normally attached to the division from corps, had no difficulty in providing survey data quickly in regimental areas. Theoretically, an augmented survey troop should, in the same way, have no difficulty in providing survey down to dispersed batteries. To test this theory the *ad hoc* survey troop was formed, and it operated throughout the period of the practice camp as a single unit.

This experiment in centralized divisional survey was very successful. The survey troop was found to be quite capable of keeping up with gun movement. After a move the regiments were all on divisional survey grid in a matter of hours. In some instances, on favourable terrain, the guns were able to go directly on divisional grid on their arrival in the gun area.

In addition to their prime purpose of providing survey for the divisional artillery, the survey troop was kept very busy establishing a basic control survey for the ranges. This basic survey has been, and will be in future, of immeasureable value in the build-up of the over-all camp area. To carry out this task the troops disappeared for days at a time into the bush, returning at intervals with new data and new areas mapped.

Air Observation Post Flight

The Air Observation Post Flight received valuable training during the practice camp. Five aircraft were available and they carried out shoots on all exercises. In addition to practice in observation of fire, all pilots received training in tactical flying. The rolling ground, which is typical of the Camp Gagetown range area, allowed them to practice low flying behind friendly crests, climbing only to observe the results of their fire prior to correction. This type of flying training



Canadian Army Photograph

Firing in the ground role: 90-mm. guns of the 1st Light Anti-Aircraft Regiment, RCA.

is not readily available in most other training areas. Since air regulations discourage low level manoeuvring, over non-military areas this freedom was received with enthusiasm by all the pilots.

In addition to training in observation of fire the flight received many calls for air reconnaissance by unit and formation commanders, aerial photographs and assistance in control of safety on the ranges. They carried out all assignments efficiently.

Course Shooting

The aim of the course shooting was to:

(a) Practice observation post (OP) parties in conducting simple shoots.

(b) Practice Command Post (CP) staffs in technical procedures.

(c) Accustom young soldiers in the gun detachments to steady gun drill.

(d) Train units to bring accurate fire to bear with speed and in the form required by the tactical situation.

The course shooting was conducted under the direction of the regimental commanders. Firing was slow at first because of the many young soldiers and officers, some of whom were participating in live firing for the first time. A number of OP officers fired their first shoots and were amazed to find that the ground modified their corrections. At first they tended to say that the guns were ignoring their orders but in time they learned that ground can be very deceiving. It was very noticeable that speed and accuracy improved

Canadian Army Photograph

A mortar position: "X" Battery, 3rd Regiment, RCHA.

greatly as the firing progressed throughout the training period. This particular exercise was valuable as a period of "shake down" in preparation for the larger exercises that followed.

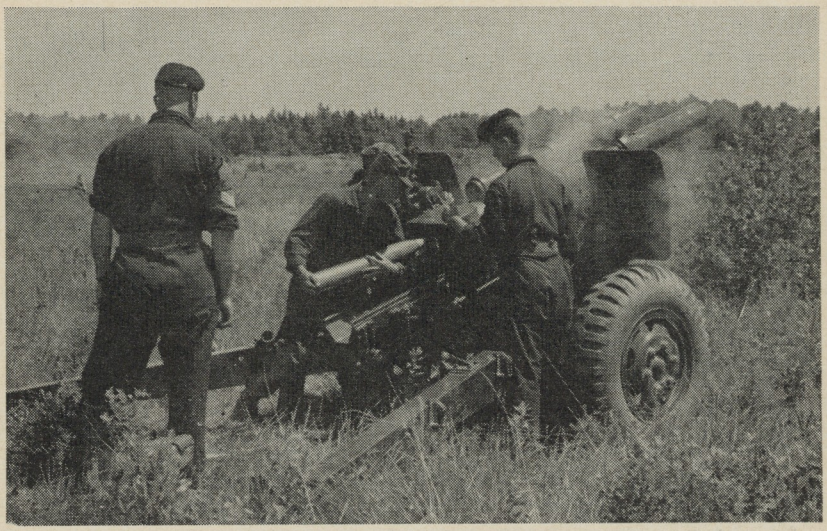
Battery Exercises

The aim of these exercises was to practice batteries in fire and movement, in particular stressing rapid deployments and quick fire plans. They were carried out under the direction of the regimental commanders.

The weather during this period was good although, on certain days, the fire index became so high that smoke shoots had to be curtailed. All facets of movement, communications, technical procedures and administration were studied, errors or omissions noted and corrective action initiated. Prior to these exercises the various procedures had been practised separately. These exercises related these procedures as a whole.

Battery Gun Competition

During this period the annual competition between regiments for the "Challenge Trophy for Battery Gun Practice" was carried out. This competition is conducted annually to determine the best bat-



Canadian Army Photograph

Guns of the 1st Regiment, RCHA, engaging a regimental target.

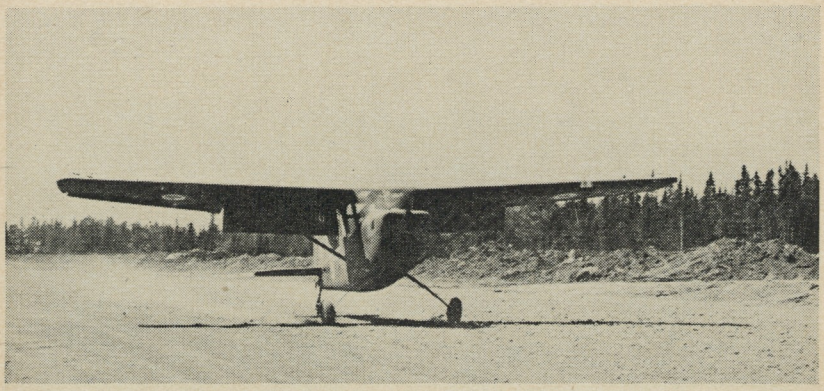
tery in the divisional field artillery units. Appropriately, these exercises were called Top Dog I, II and III. The competing batteries at Gagetown were "B" Battery, First Regiment, RCHA; "J" Battery, Third Regiment, RCHA; and "W" Battery, Fourth Regiment, RCHA. "D" Battery, Second Regiment, RCHA, who carried out summer training at Wainwright, Alta., were judged early in June in Camp Shilo.

The competing batteries were examined on their proficiency in all phases of organization and gunnery. The records, maintenance and state of equipment, smartness in dress and discipline, proficiency in deployment and gunnery from both the OP and the gun position were all examined by the judges.

The judging was carried out by a team of Instructors in Gunnery and Assistant Instructors in Gunnery from the Royal Canadian School of Artillery, Camp Shilo, Man. The results were extremely close and "J" Battery, Third Regiment, RCHA, won the trophy by a narrow margin.

Command Post Exercise

On 21 June Exercise Hotshot took place. This exercise was designed to practice First Air Observation Post Flight, RCA, command post staffs and observation



Canadian Army Photograph

An aircraft of the 1st Air Observation Post Flight landing on the air strip near the north end of Lawfield Road after a successful shoot.

posts of the Divisional Artillery in artillery fire orders procedure.

Technical Exercise

Exercise Bangon was conducted on 22 June. The aim of this particular exercise was to practise the Divisional Artillery in:

(a) Datum point shooting.
(b) Predicted concentrations.
(c) The standard barrage.
(d) Smoke screens.

The exercise was also designed to permit assessment of the accuracy and degree of dispersion of predicted fire.

The exercise was not conducted in the form of a demonstration. All targets were calculated and engaged from original data as they would be in operations. In general, the shooting was fair although there was a definite requirement for increased practice and training in this type of shooting if a high degree of proficiency is to be achieved. The exercise was valuable in indicating where the deficiencies lay so that corrective training could be implemented.

Regimental Exercises

Two regimental exercises, each of two days duration, were held. Each exercise included Headquarters, Royal Canadian Artillery, a field regiment including a light battery, a light anti-aircraft battery and Air Observation Post Flight. The aim of these exercises was to practise units in fire, movement, night occupation and fire planning.

The units concentrated in a tactical hide on the first night.

At first light they moved into a gun position from which they engaged targets of opportunity all that day controlled by their OPs. During the second night the guns were moved to a second gun area from which they fired targets of opportunity and a fire plan on the second day. On this second day two of the battalions from the respective field regiment's affiliated brigade watched the firing of the fire plan.

In general, the units functioned well. A noticeable increase in efficiency of drills and procedures was evident when compared to exercises which took place in the early days of the practice camp. Some deficiences were noted and corrective action by the units concerned was introduced.

Divisional Exercise

Exercise Thunder took place on 27 and 28 June. This was an exercise to practise the divisional artillery in fire planning and movement under nuclear conditions. It was similar to the regimental exercises except that all units of the divisional artillery were involved. The exercise was designed to introduce the additional problems of close timings on movement and congestion on roads. This, in turn, stressed the need for co-ordination, close control of movement by formations and units and the difficulties that ensue during such operations.

During this exercise the fire planning was carried out in conjunction with the infantry. Two fire plans were worked out although only one could be fired due to the poor weather.

Conclusions

In the first exercises held at practice camp, firing practices were slow due primarily to inexperienced troops.

As the practice camp progressed, a great improvement was evident in both the speed and accuracy of the firing. Although individual phases of artillery procedure can be practised separately during the remainder of the year, it is only at the practice camps that the necessity for the various drills and their interrelation in producing quick fire is appreciated and practised.

The Camp Gagetown ranges are excellent for the divisional artillery practice camps. The ground is sufficiently undulating to provide excellent OP and target areas. The extensive range area provides a variety of excellent gun positions ensuring that artillery units can practise fire and movement under conditions closely resembling actual operations.

Militia Trains at Camp Gagetown

A REPORT BY HEADQUARTERS, EASTERN COMMAND, HALIFAX, N.S.

For the first time personnel of Canadian Army (Militia) units of certain corps carried out their summer training at Camp Gagetown in 1957.

In previous years it had been found that it was not easy to provide realistic training for units of corps such as the Royal Canadian Army Service Corps, the Royal Canadian Electrical and Mechanical Engineers and the Canadian Provost Corps during their attendance at Camp Utopia. This was, in part, due to the small numbers of personnel attending camp in proportion to other corps.

It was decided, therefore, to try a different approach in 1957 by sending units of certain corps to Camp Gagetown where their personnel would be integrated with Regular Units to undertake training as individuals in such units. Inasmuch as no National Camp for the Royal Canadian Army Medical Corps was to be held this year, RCAMC units were also included, as well as those mentioned previously. Some Royal Canadian Armoured Corps and Royal Canadian Corps of Signals personnel also underwent summer training at Camp Gagetown, but such personnel were employed as an integral part of the Exercise Eastern Star organization, and their participation is outlined in the article dealing with that Exercise.

On arrival in camp, RCAMC units were broken up into two main categories: those male personnel suitable for field training with a field ambulance, and other male personnel, some of whom required trades training, as well as Nursing Sisters in a station hospital. Personnel in the first category were integrated into Field Ambulances of the 1st Canadian Infantry Division and trained with their Regular Force counterparts. Personnel in the second category, trained at Camp Gagetown Station Hospital, were given a course of instruction applicable to duties in their Militia unit. Generally, the plan was considered most satisfactory and, in particular, those who trained with field units received training that could not be duplicated in a normal Militia summer camp.

RCASC units came to camp complete with vehicles and, on arrival, were integrated with No. 7 Company RCASC to augment that unit's transport facilities. It

was difficult to provide adequate training under these circumstances for the relatively high proportion of officers and Senior NCOs attending Camp, with the result that several NCOs had to be employed as drivers. The operation of transport by Militia provided valuable training and certainly the call on their services on a 24-hour basis was more in keeping with field conditions than is normal at Militia Summer Camps. It is possible that in future years greater training value could be achieved by integrating RCASC Militiamen with units of the Divisional Column in the same manner as RCAMC.

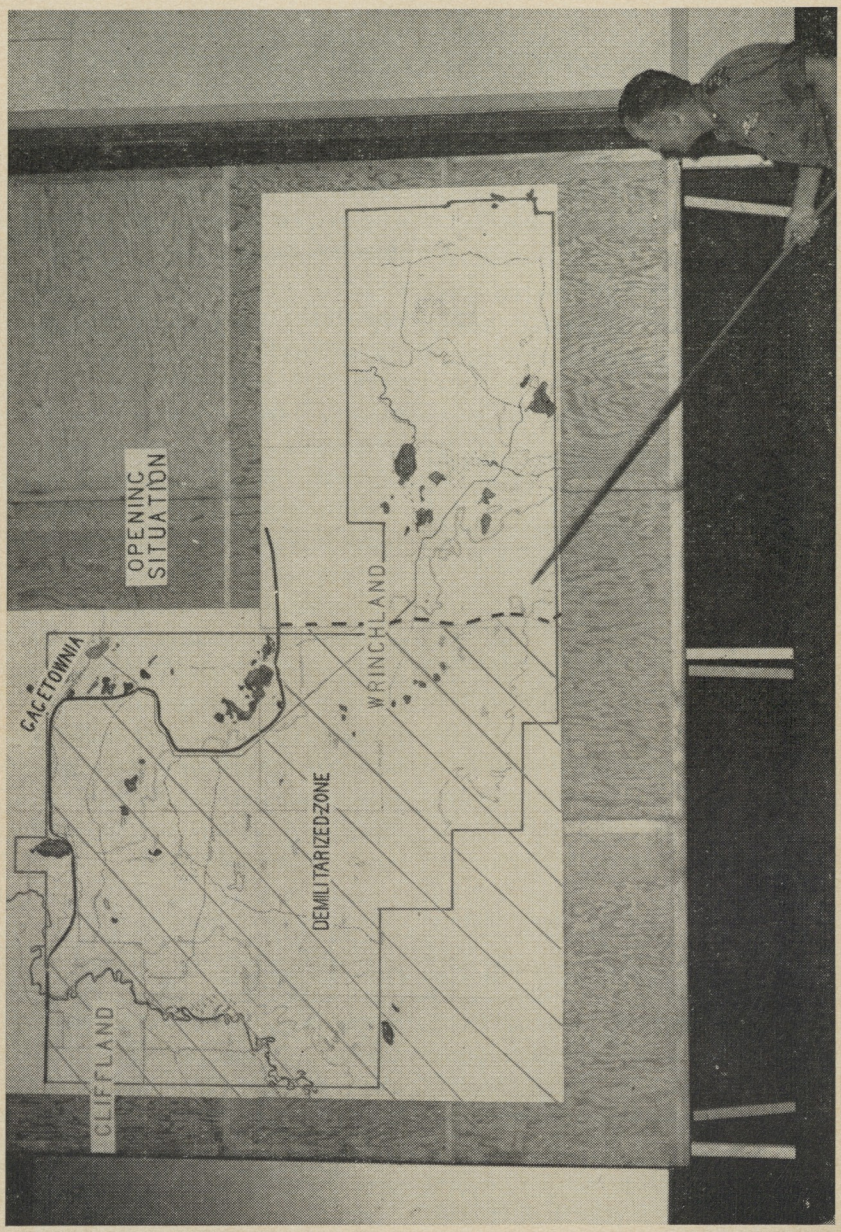
RCEME units were integrated with Nos. 41 and 42 Infantry Workshops where the men were employed in normal supervisory duties looking after the training of their men. As such personnel assisted with field repairs of all classes of equipment under reasonably authentic field conditions, good training value resulted.

Canadian Provost Corps Militiamen were integrated with the New Brunswick Area Maintenance Group Detachment, C Pro C, where they were paired off with Regular Army Provost personnel and fully employed in actual provost duties rather than undertaking the exercise type of training usually conducted at summer camp. Better training was thus achieved.

Results obtained showed that, for the corps concerned, greater value was derived from this form of summer camp training than that obtained from methods of summer camp training previously adopted. Any small difficulties which arose were more than compensated by the detailed knowledge acquired by the part-time soldier of the manner in which his professional brother-in-arms carries out his role in the field.

Soviet Oil Reserves Doubled

Known Soviet oil reserves have been doubled in the past year, making the USSR, with a reserve of over 23 billion barrels of oil in widely scattered fields, fifth among the world's oil producers. The United States is third with reserves of over 32 billion barrels. Kuwait, on the northwest corner of the Persian Gulf, leads with 50 billion barrels, about 21 percent of the world's supply.—*A news item in the Military Review (U.S.).*


OPENING SITUATION
CACETOWNIA
WRINCHLAND
DEMILITARIZEDZONE
CLIFFLAND

COLLECTIVE TRAINING AT CAMP WAINWRIGHT

By

MAJOR R. H. LESLIE-JONES, GSO 2 (TRAINING),
HEADQUARTERS, WESTERN COMMAND, EDMONTON, ALTA.

"When you see a regular soldier standing there, take a good look at him, for he is the finest soldier in the world."

With these words Brigadier A. E. Wrinch, CBE, CD, commander of the 1st Canadian Infantry Brigade, paid tribute to the Regular force when introducing visitors to Camp Wainwright during the 1957 summer training period.

The object of the training conducted under the over-all direction of Major-General C. Vokes, CB, CBE, DSO, CD, General Officer Commanding Western Command, was to bring the 1st Canadian Infantry Brigade Group to a state of readiness for war. Camouflage, concealment, speed of deployment and cross-country movement were the aims to be achieved by hard training, physical fitness on the part of all ranks and a thorough understanding of battle procedures. In all exercises both the "enemy" and "own troops" were given the support of nuclear weapons and all tactical thinking rotated around the problems imposed by the employment of atomic weapons.

Close air support was provided by T33 fighters and Mitchell bombers flown from the Namao RCAF Station where a Joint Operations Centre was set up. Ground liaison officers located with Brigade Headquarters and the forward troops directed the strikes on to enemy positions. Light aircraft and a section of helicopters provided the necessary aerial reconnaissance and mobility for commanders.

The concentration began with the arrival of Headquarters, 1st Canadian Infantry Brigade, in the training area on 3 June 1957, followed by unit advance parties, and by 22 June all units were established in their respective training areas in the field. The training period was broken down into three phases. Phase I, from 23 June to 20 July, was a period of intensive unit and sub-unit

Brigadier A. E. Wrinch, CBE, CD, commander of the 1st Canadian Infantry Brigade, briefs officers of the Brigade Group on Exercise Hotfoot. ←

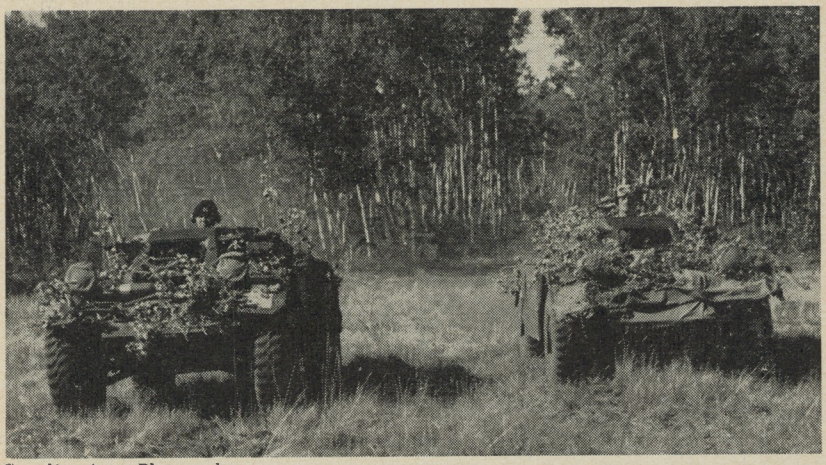
training under the direction of the Brigade Commander. Phase II comprised two Brigade exercises, set and controlled by Headquarters, 1st Canadian Infantry Brigade, which were designed to exercise the Brigade Group as a whole and to weld it into a fighting formation. The final phase was a single exercise, Exercise Hotfoot, set and directed by the GOC Western Command.

Phase I

It was during this Phase that Headquarters Western Command conducted the annual Militia Summer Training Camp at Camp Wainwright. Approximately 2000 Militia soldiers from Alberta, British Columbia, the Yukon and the Northwest Territories, together with Militia Engineer and Ordnance units of Prairie Command, attended the Camp from 30 June to 6 July. Regular units already in Camp Wainwright provided a maximum of assistance, doing the "housekeeping", providing Infantry Cadre Training and also instructors for the Armoured, Artillery, Engineer and Service Camps for Militia units. Concurrently, an ambitious training programme for both senior and junior Militia officers was conducted. A Band School for Regular and Militia musicians from Western and Prairie Commands was held, providing band training for some 350 bandsmen. The Pipe Band of The Seaforth Highlanders of Canada won the annual competition at the Highland Games at Edmonton on 1 July 1957.

As Militia units left, the 1st Canadian Infantry Brigade gathered in the camp to celebrate Pachino Day, 7 July. In the morning Church Parades were held and in the afternoon there was a sports meeting at which the finals of the Western Command Track and Field Meet for field units was held. The meet was opened by Major-General Vokes and won easily by the 2nd Battalion, Princess Patricia's Canadian Light Infantry, with a very comfortable margin of points over their nearest rivals. The award for the best minor unit at the meet went to the 4th Light Anti-Aircraft Battery.

The Western Command Small Arms Competition and the Western Command Rifle Competition were held also during the early part of Phase I of the training period. The former competition was won by 2 PPCLI and the latter by the rifle team of the Royal Canadian School of Military Engineering, who later represented Western Command in the Canadian Army Rifle Championships at Ottawa.



Canadian Army Photograph

Ferret Scout Cars engaged in a reconnaissance role with elements of the Cliffland forces.

During Militia week a visit to the training area was made by a large group of members of the Chambers of Commerce of Edmonton, Calgary and Wainwright, who were taken on an extensive tour of the training area. The tour culminated with a demonstration of a company attack supported by bomber and fighter aircraft, tanks and artillery — an impressive presentation of the training and equipment of the modern soldier.

After the Pachino Day celebrations the Brigade again settled down to a period of intensive sub-unit training. Tank and infantry co-operation, attack, defence, withdrawal and long dusty marches became part and parcel of the soldier's daily existence. For each rifle company this training achieved its peak in the "Quick-thought" Exercises. These were company test exercises designed to test the efficiency of each rifle company and its supporting arms, tanks, artillery and engineers. The setting of each exercise was an advance against increasing opposition culminating in a full-scale attack supported by all available weapons. Closely and exactly umpired and judged by the Umpire and Control Staff, these exercises provided first-class training and a fine test of the training and initiative of every man in each company group.

Phase II

The second phase of the concentration opened on 21 July with

Exercise Waltzing Matilda. This was primarily a movement and administration exercise. The exercise was set by Headquarters, 1st Canadian Infantry Brigade, and directed by Brigadier Wrinch. The exercise was given a tactical setting and employed as enemy the "Recruit Battalion" — a battalion formed of recruits from the The Princess Patricia's Canadian Light Infantry and Queen's Own Rifles of Canada Depots, the Royal Canadian School of Military Engineering and the newly-formed Reconnaissance Squadron of The Lord Strathcona's Horse (Royal Canadians). Both these units conducted an excellent withdrawal in the face of swift brigade pressure across the Battle River. Umpires imposed casualties on the Brigade, cratered roads and released a series of "atomic" explosions which imposed delay and casualties to men and equipment in order to test the administrative efficiency of the Brigade. Particularly tested were the administrative units of the Brigade, especially the medical units.

This exercise developed naturally into Exercise Pinewood, the Brigade being pictured as being under the threat of war while engaged in their administrative exercise. Pinewood opened in a spectacular fashion with the obliteration of the Brigade Headquarters by an atomic missile and a large parachute drop early on the morning of 25 July by 2 PPCLI who, as the Fantasian enemy, seized the crossings of the Battle River and penetrated deep into "Canadian" territory. The Brigade, disorganized by the atomic strike which had also blown the only bridge across the Ribstone Creek, reorganized under command of Lieut.-Colonel C. A. Greenleaf, LdSH (RC), who assumed command of the Brigade when he learned of the fate of the Headquarters.

The Ribstone was bridged and the enemy, who had been joined by their land tail and the Recruit Battalion, were pushed back to the Battle River in a series of fast-moving encounters. The exercise closed as the Fantasians planned an assault crossing of the Battle River and the Brigade was forced to withdraw by pressure on their flank.

Phase III

Exercise Hotfoot, the final exercise of the Wainwright concentration, set by Major-General Vokes, involved two countries on the verge of war and a third of professed neutrality, who was to stab one of her neighbours in the back.

The border of Cliffland and Wrinchland lay along the Battle River while to the north lay Gage-

Canadian Army Photograph

A Mitchell bomber from the RCAF's 418 Reserve Squadron, Edmonton, Alta., makes a low-level attack on tanks supporting Cliffland forces during Exercise Hotfoot.

townia. A strip of territory, approximately 15 miles wide on either side of the Battle River had been declared a demilitarized zone by the United Nations.

Wrinchland was pictured as a peaceful democratic country and a strong supporter of NATO. Cliffland was a satellite country, while amidst endless disputes between her neighbours Gagetownia had maintained a strict neutrality.

On 27 July, 1st Wrinchland Infantry Brigade Group was stationed 50 miles to the east and on 28 July moved to a training area close to the border to carry out collective training. By 0900 hours on 29 July the Brigade was dispersed and concealed in the eastern part of the Wainwright training area and prepared to begin training. This Brigade comprised HQ 1st Canadian Infantry Brigade Group less 1st Queen's Own Rifles of Canada Battalion Group, the Helicopter Section from the Canadian Joint Air Training Centre, Rivers, Man., and the Liaison Flight.

The Cliffland forces, known as 1st Cliffland Mechanized Battalion Group, comprised 1 QOR of C with, under command, "A"Squadron, LdSH (RC); "D" Battery, 2nd Regiment, Royal Canadian Horse Artillery; 4th Light Anti-

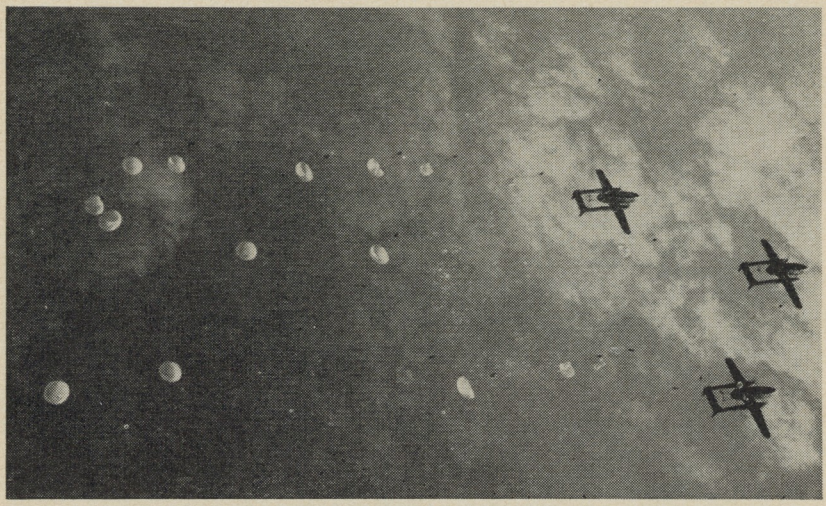
Aircraft Battery, less one troop; a section of No. 2 Air Observation Post Flight, Royal Canadian Artillery; No. 1 Airborne Troop, Royal Canadian Engineers; an air contact team; an element of No. 43 Infantry Workshop, Royal Canadian Mechanical and Electrical Engineers; and a small detachment of Provost.

This latter force, pictured on 29 July as being some 40 miles to the west, was ordered to occupy at dusk on 29 July that part of the demilitarized zone west of the Battle River, and to patrol deeply into the Wrinchland portion of the zone.

Meanwhile the Wrinchland Brigade received orders at 1600 hours 29 July to re-occupy the Wrinchland part of the demilitarized zone. The Brigade was not, however, to cross the Battle River and the move was to resemble a training move, but was in fact a defensive deployment on the Battle River, since war had not been declared. An atomic attack by Cliffland on the Wrinchland capital, North Battleford, early on the morning of 30 July led to an immediate declaration of war by Wrinchland. By the morning of 30 July both forces were established along the Battle River. Cliffland's forces were held back from the river line itself, except in the south where they dominated the fords across the river and patrolled far into Wrinchland territory. Wrinchland units, deployed against possible nuclear attack, held defensive positions with patrols and observation posts on the river line.

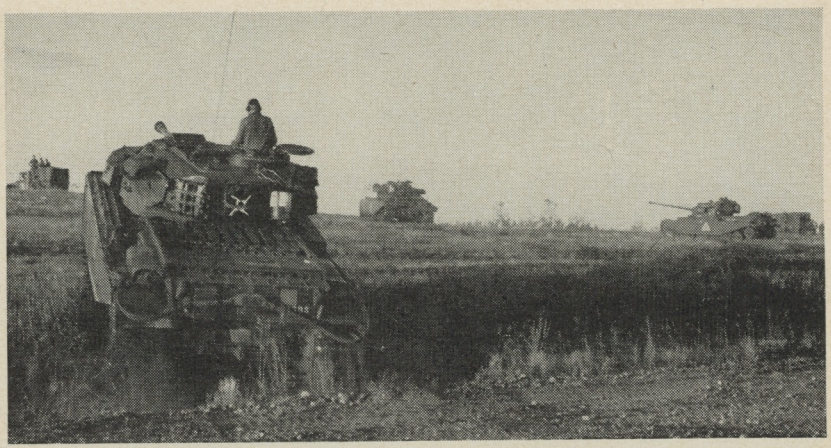
However, on the evening of 29 July the Cliffland Commander had received secret orders which said, in effect, that Gagetownia would probably throw in her lot with Cliffland and permit the passage of Cliffland forces through her territory. On confirmation that Gagetownia had abandoned her neutrality, the Cliffland Mechanized Battalion Group would be relieved, would move north through Gagetownia territory and strike from south of the town of Wainwright to establish themselves on the east bank of the Battle River dominating the main road bridge. As a further proof of their intentions, Gagetownia forces would provide Cliffland with a fully equipped squadron from their base in Wainwright. It was expected that Gagetownia would renounce her neutrality during the day, 30 July. The Cliffland Commander could inform no one of this until he was given the code word DIAMOND which would announce Gagetownia's defection.

During the day, 30 July, both forces faced each other across the



Canadian Army Photographs

Reported to be the largest post-war air-drop in Canada, these photographs show members of the 2nd Battalion, Princess Patricia's Canadian Light Infantry, leaving C-119 aircraft and landing during summer training at Camp Wainwright, Alta.



Canadian Army Photograph

Centurion tanks of Lord Strathcona's Horse (Royal Canadians) provide indirect fire for the Cliffland forces.

river, patrolled vigorously and sought to discover each other's strength and positions, Cliffland endeavouring to give the impression that an assault crossing of the Battle River would be made in the southern part of the front.

Then came the momentous events of the night of 30/31 July. Cliffland received the code word DIAMOND at 1800 hours and began to move at 2200 hours via Irma and Wainwright Town to an assembly area in Gagetownia territory due east of the Wrinchland Brigade's area. There they married up with the Tank Squadron and at 0425 hours on 31 July crossed the border in two columns, striking the rear of the Brigade positions. After much hard and confused fighting and with considerable casualties to the Southern Column, the objective — the high ground east of the Battle River Bridge — was reached.

The Wrinchland Brigade had reacted promptly and vigorously, The 2nd PPCLI, attacked from their rear, fought back fiercely and held their ground, and, as soon as the Cliffland intention became more clear, 2 QOR of C were moved south so that the Brigade presented a firm front to the Cliffland forces. Two nuclear missiles were launched, one of which successfully wiped out a large part of the Cliffland Headquarters and destroyed one company. The 2nd PPCLI were then ordered to counter-attack to complete the

destruction of the Cliffland Force. As this swift and well executed attack went in, the Director ordered the "Cease Fire", bringing Exercise Hotfoot to a close.

The exercise again demonstrated the mobility of 1 QOR of C Bn. Group, who again this summer were equipped as a carrier-borne battalion with ¾-ton vehicles representing Armoured Personnel Carriers. The long night move followed by an attack across unreconnoitred ground showed their mobility, their hitting power and the value of their good communications.

The use, or potential use, of atomic missiles played a major part in the planning and tactics of both commanders. The deployment of the Brigade Group was largely based on the supposition that the enemy could launch an atomic attack with field weapons and the exercise demonstrated the necessity for extreme unit mobility on the widely spaced battlefield.

Canadian Army Photograph

Lieut.-Colonel C. P. McPherson, CD, commanding the 1st Battalion, Queen's Own Rifles of Canada, describes to officers of the 1st Canadian Infantry Brigade Group the tactical lessons learned during Exercise Hotfoot.

SUMMER TRAINING AT CORPS SCHOOLS

The following is a brief review of summer training conducted by Corps Schools of the Canadian Army in 1957—Editor.

* * *

THE ROYAL CANADIAN ARMOURED CORPS SCHOOL

Although this report concerns summer training, the load this year has been far heavier than normal, and to explain this a review of winter and spring training is necessary.

Last year an announcement was made on the formation of a new armoured regiment. This and the increased armour commitments in the Middle East had an immediate effect on the course loads at the Royal Canadian Armoured Corps School, Camp Borden, Ont. Starting in October 1956 and continuing to the present date, depot, recruit and trades training has continued unabated. In all, approximately 800 men have been taken on strength, with the majority leaving the school as qualified RCAC tradesmen.

In order to meet this training load which was far heavier than the School could carry with its own resources, increment instructors were obtained from the Royal Canadian Dragoons (1st Armoured Regiment), Lord Strathcona's Horse (Royal Canadians) (2nd Armoured Regiment), and 1/8 Canadian Hussars (Princess Louise's). In every case the instructor chosen was ideally suited to instruct on his subject which allowed the training to continue without delay.

During the summer the School has normally been fully committed with Canadian Officers' Training Corps training. This year has found classes of both COTC and recruits taking special-to-corps training.

The activities in each squadron will be explained separately, starting with the Officer Cadet Squadron.

The Officer Cadet Squadron is responsible for the training of first-year officer cadets, and the administration of the COTC programme as a whole.

This year approximately eighty first-year cadets have been trained

at this squadron. The training started with what is basically a modified recruit course which by stages trains and examines the cadets ability to lead. The fourth week was spent in the field, the cadet being trained in fieldcraft and basic tactics. During the ninth week of the 10-week course, the training reached its practical peak. Each troop spent a complete week living and training in the field at Meaford, Ont.

Tactics Squadron, located in Meaford, spent the summer training six troops of COTC to the level required of a troop leader. The course lasted five weeks, and, with the exception of the first week, candidates lived in the field. During the first week instruction was given in the morning and applied practically in the afternoon.

The second week saw the start of the integrated training of a troop leader: each cadet was rotated through the position of Troop Corporal, Sergeant and Troop Leader. When not engaged in a command position the cadet assumed the active role of a crewman, which included tank driving.

Troop drills at Meaford—No. 6 Troop Canadian Officers' Training Corps (Phase II).

At night, the troop harboured and maintained the tanks and put out guards and listening posts. Each week saw the troop moving once and often twice on night exercises.

Training in tank-infantry co-operation was carried out in conjunction with second-year officer cadets from the Royal Canadian School of Infantry. A final test in the form of a practical examination concluded tactics training.

Each trades squadron—Driving and Maintenance, Wireless and Gunnery—was heavily committed all summer. Often as many as nine troops of COTC and recruits were trained in each squadron at one time.

* * *

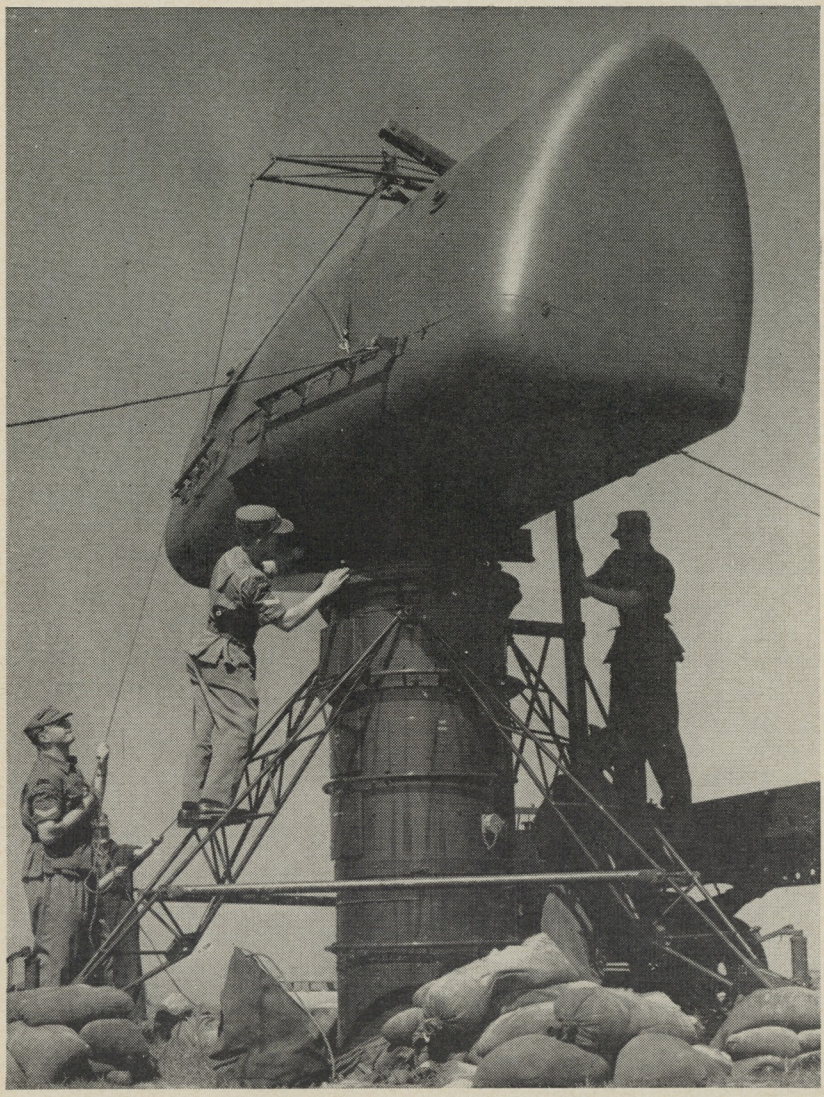
THE ROYAL CANADIAN SCHOOL OF ARTILLERY (ANTI-AIRCRAFT)

During the 1956-57 training year, the Royal Canadian School of Artillery (Anti-Aircraft) conducted courses for officers and NCOs of the Royal Canadian Artillery on Anti-Aircraft subjects, and introductory courses on guided missiles and rockets for officers and NCOs of all corps. Additionally, to satisfy the staff requirement of the School for trained anti-aircraft personnel, courses for radar operators, gun number (RCA), driver (RCA) and junior NCOs formed part of the training programme.

In order to keep the instructional personnel fully informed of current guided missile and anti-aircraft equipment, procedures and doctrines, and to provide trained personnel for anticipated future requirements in these fields, a number of officers and NCOs are regularly on courses. These are held at the U.S. Anti-Aircraft Artillery and Guided Missile School, Fort Bliss, Texas, The Artillery and Guided Missile School at Fort Sill, Okla., and Manorbier and Larkhill in the United Kingdom.

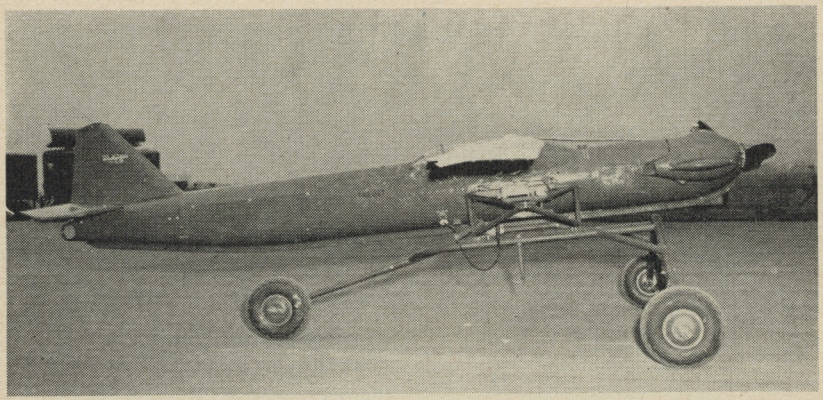
From May to September approximately one hundred COTC University and Command contingent personnel are at Picton, Ont., for basic and anti-aircraft training. These courses include an introduction to guided missiles, and the instruction for this entire programme is given in English or French as required.

For seven weeks during July and August the Anti-Aircraft Militia Summer Camp, conducted under the direction of Headquarters Central Command and catering to Medium and Light Anti-Aircraft



RCAF Photograph

Candidates on the Senior NCOs' Course engaged in emplacing the radome of the acquisition radar of the Anti-Aircraft Fire Control System (M33C).



RCAF Photograph

A Radio-Controlled Artillery Target (RCAT). This type of remotely-controlled anti-aircraft target is used at the Royal Canadian School of Artillery (AA) during Medium Anti-Aircraft firing practices.

units from Quebec and Central Commands is located at Picton. RCSA(AA) personnel are employed at this camp in command, administrative and training appointments.

Throughout the year, except for the summer months, firing practices are conducted for Militia Anti-Aircraft units from Central and Quebec Commands on week-ends and occasionally a small RCSA (AA) instructional staff assists other Militia units with the local headquarters training.

* * *

ANTI-AIRCRAFT ARTILLERY SUMMER CAMP AT POINT PETRE

Summer Camp for Canadian Army (Militia) Anti-Aircraft Units of Central, Quebec and Eastern Commands was held at The Royal Canadian School of Artillery (AA) Firing Ranges at Point Petre, Ont., from 29 June to 17 August 1957. A total of approximately 1400 Militia personnel of all ranks from fourteen units attended the camp on the basis of one Medium Anti-Aircraft and one Light Anti-Aircraft regiment per week.

In addition to providing the units with an opportunity to exercise the drills and skills of AA Gunnery they had been practising during the winter months, the

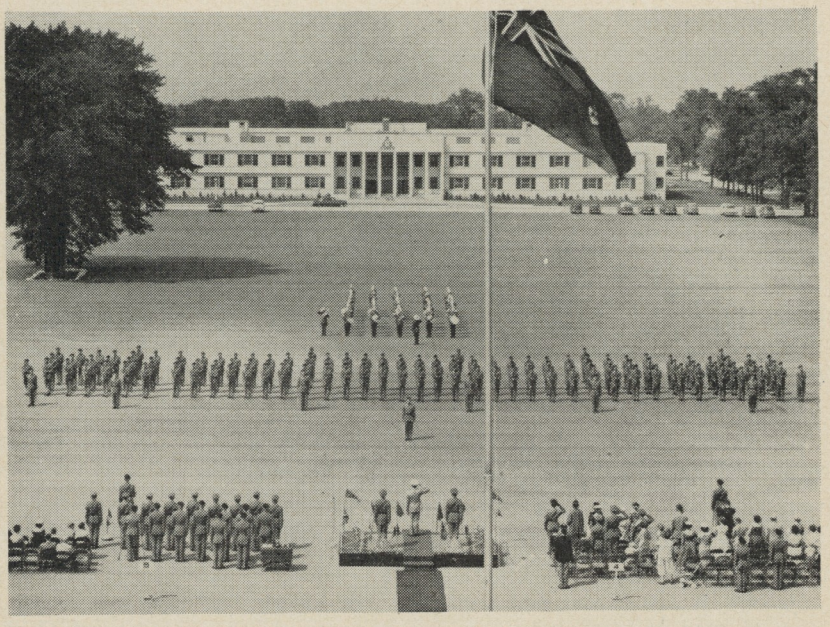
Camp Training Staff gave Militia units instruction in a wide variety of courses ranging from Junior NCO to Senior Officer Courses. Selected personnel received introductory lectures in guided missiles. Anti-Aircraft Operations Centre personnel received instruction on the ANMPS 504 Radar and were given a theoretical introduction to the latest Air Control and Warning System. In addition, trades tests and officer qualifying examinations were provided for those individuals who met the prerequisites, and all personnel were given an opportunity to witness demonstrations of new weapons which included the anti-tank 3.2-inch launcher rocket and the 7.62 FN (C1) rifle.

An innovation at this year's camp was the introduction of Competitive Efficiency Tests which have been instituted by the Canadian Artillery Association. The efficiency test for LAA units was available to those units on an optional basis. All MAA units attending camp were tested and six of the seven LAA units elected to take it. MAA units used M33C radar 90-mm. gun fire units with both mechanical and variable time fuses against air targets. LAA units used 40-mm. guns against both sea and air targets. At the time of writing test scores had not been released.

The Training Staff was drawn from suitably qualified Regular Army personnel of RCSA (AA) and instructional staff from Central, Quebec and Eastern Commands. Units were encouraged to employ regimental personnel as instructors on major equipments. However, an instructor from the Camp Staff was permanently assigned to each equipment in an advisory capacity. Senior NCO's and Senior Officers' Courses were conducted solely by the Camp Training Staff.

The camp was commanded by Brigadier E. Snow, OBE, CD, Commander, Eastern Ontario Area, who had as his Deputy Commander Lieut.-Colonel G. L. Vincent, CD, Commandant, RCSA (AA), and as his Commandant, Major J. F. Reeves, Trials and Equipment Evaluation Battery RCSA (AA). The Administrative Staff was drawn in the main from Trials and Equipment Evaluation Battery RCSA (AA). Some appointments were filled by personnel from Headquarters Eastern Ontario Area and Militia Army personnel on call-out.

The commanders of all units agreed that this year's camp was the best that they had ever attended from the point of view of the administrative backing they received for their training.



The Canadian Officers' Training Corps graduation parade at Vimy Barracks, 14 August 1957. The inspecting officer, Commodore D. S. Piers, DSO, CD, Commandant of the Royal Military College of Canada, Kingston, Ont., is flanked by the Commandant of the Royal Canadian School of Signals, Colonel H. A. Millen, OBE, CD, and the Officer Commanding the Officer Training Squadron, Major G. P. Dawson, CD.

THE ROYAL CANADIAN SCHOOL OF SIGNALS

Officers and men of the Royal Canadian Corps of Signals will recognize the parade square in the accompanying photograph as the one at the Royal Canadian School of Signals. The School, situated near Kingston, Ont., is the home of the Corps; it accommodates, also, the Royal Canadian Army Pay Corps Training Wing.

At the School, recruits receive depot and recruit training, continue on to trades training courses and leave as qualified tradesmen to serve with one of the Signals units in the Canadian Army at home and abroad. Here, also, Non-Commissioned Officers from many parts of Canada assemble to qualify in Corps Senior NCO Courses, and experienced tradesmen attend up-grading and refresher courses.

Officers in the Regular Officers

Training Plan and Canadian Officers' Training Corps cadets train at the School each summer. During the fall and winter seasons qualifying courses for Corps officers are conducted.

The normal training load is approximately 600 all ranks, and during the first half of 1957 a total of 1234 RC SIGS and RCAPC personnel were trained at the School.

For the period 1 January-15 August 1957, Signals personnel trained at the School (officers, NCOs, tradesmen, recruits and apprentices) numbered 1125. Pay Corps personnel in these classifications trained at the School during the same period numbered 109, bringing the total to 1234.

In addition to being the training centre for the Corps, Vimy Barracks is a meeting place for Signals personnel, for almost without exception every officer and man will attend a course or do a tour of duty at the School during his career in Signals.

* * *

THE ROYAL CANADIAN SCHOOL OF INFANTRY

The regular course schedule at The Royal Canadian School of Infantry, Camp Borden, Ont., was concluded at the end of April 1957, and the School then undertook its primary summer role, the practical phase training of Canadian Officers' Training Corps personnel (Infantry)*. Coincident with the tapering off of the regular courses, domestic Group 1 courses, followed by refresher training of the staff for the COTC commitment, took place. COTC training was conducted under a two-company organization.

In "A" Company was vested responsibility of bringing Phase I officer cadets to the trained soldier standard on all general military subjects, more emphasis being given to theory. A total of 158 officer cadets reported for Phase I training which took place in its entirety within the training areas of Camp Borden.

"B" Company was responsible for the training of the 127 Phase II officer cadets who arrived at the School by 26 June. The task of this company was to train the officer cadet to the standard required of an infantry platoon commander in battle, in all phases of war.

* *A limited number of Royal Canadian Dental Corps officer cadets took practical phase training at the RCS of I.*

On 15 July "B" Company moved to Camp Meaford on Georgian Bay for a two-week concentration for practical field training, which included Fieldcraft, Section and Platoon Tactics, Field Firing and Infantry Tank training. First-class practical experience was gained in working with armour, which was supplied by The Royal Canadian Armoured Corps School and operated in part by the RCAC COTC who were also training at Meaford Camp. Dry weather contributed to the success of the Meaford concentration.

Bilingual instructors were provided for both phases and each Company trained one or more French-speaking platoons.

On the completion of Phase I and Phase II training, bonus courses of one week duration were conducted in such subjects as Physical Training, Driving and Maintenance, Medium Machine Gun, 81-mm. Mortar and Assault Pioneer subjects. The majority of the officer cadets who were not required at their universities at an early date remained at the School to take advantage of these courses.

An active sports programme was conducted during the summer and the infantry officer cadets succeeded in winning the Camp

Major R. W. Hampton, CD, of the Infantry User Trials Section, Royal Canadian School of Infantry, demonstrates new weapons to a group of visiting United States Army officers from the U.S. Army's Infantry Centre, Fort Benning, Ga.

Colonel P. R. Bingham, DSO, Commandant of the Royal Canadian School of Infantry, referees a tug-of-war between Phase I and Phase II COTC teams at the School's Field Day.

The Royal Canadian School of Infantry track and field team, winners of the Camp Borden Meet, 1957.

Borden Swimming Meet, the Camp Borden Track and Field Meet and the Camp Borden Boxing Meet.

During the COTC training period skeleton staffs of the Tactics, Small Arms, Support Weapons, Signals and Driving and Maintenance Divisions were employed in writing pamphlets and preparing for the forthcoming course year. Several demonstrations and weapon-firing displays were provided for the Militia. The Methods of Instruction Wing was divided into teams that toured the Commands, visiting units conducting Depot and Recruit training for the purpose of assisting and advising in this training. The Physical Training Wing likewise supplied teams to conduct short courses or clinics on track and field subjects leading to the qualification of selected unit personnel as track and field judges. In addition, the PT Wing trained and conducted the Canadian Army boxing team on its tours, trained and provided a display team for the Canadian National Exhibition and assisted in the handling of the Canadian Army Track and Field Meet held at Camp Borden in August. There were many other commitments for the PT Wing in the way of local PT displays and assistance programmes.

All considered, it was a very busy summer for the Royal Canadian School of Infantry.

* * *

THE ROYAL CANADIAN ARMY SERVICE CORPS SCHOOL

The Royal Canadian Army Service Corps School conducted training at various levels throughout the summer of 1957. The training highlights during this period consisted of two field exercises conducted by the Officer Training Company for the second practical phase Canadian Officers Training Corps cadets and by Apprentice Training Company for all apprentice soldiers.

Exercise Wagon Train II

From 1 to 19 July second practical phase COTC cadets took part in Exercise Wagon Train II which was held in the Camp Ipperwash area. The purpose of the exercise was to test the officer cadets' abilities in the practical application of RCASC procedures.

All cadets undergoing the second practical phase were formed into one transport platoon while the

Early breakfast.

Platoon defence—Ipperwash Beach

The apprentice soldiers' mess tent in the Gravenhurst bivouac area.

directing staff provided the company headquarters. Appointments changed as often as possible to exercise cadets in command.

The exercise was divided into daily schemes in which petrol, supply, ammunition and bulk breaking points, troop lifts, ammunition dumping programmes and casualty evacuation schemes were practised.

The exercise culminated in a three-day scheme in which defence on the move and in location, moving in and out of harbour areas and a night move were practised. This exercise served well to "separate the men from the boys".

Exercise Greenflash IV

On 17 July 125 apprentice soldiers moved off from the RCASC School on Exercise Greenflash IV. For the fourth time the annual two-week exercise was underway.

Bivouac sites enroute to Petawawa were located near Gravenhurst, in Algonquin Park, and at Round Lake, while those on the return route were Bonfield, Sundridge and, again, Gravenhurst. At Petawawa the company raised canvas beside Chalk Bay, where it remained encamped for six days.

Apprentices were able to improve their individual driving skill on many types of terrain and road surface, and to practise such corps functions as troop lifting and the clearance of dropping zones. Others carried out cooking under field conditions, and with the supervision of their instructors, produced

excellent meals throughout the scheme.

During the off-duty hours swim parades, baseball and volleyball were among the organized sports activities, while horseshoe pitching and impromptu touch rugby were enjoyed by some.

On 30 July the apprentice soldiers returned to the RCASC School very delighted with their field experience, the graduating class filled with confidence for their future postings to field units, and the new apprentices anxious to repeat the scheme next year.

* * *

THE ROYAL CANADIAN ARMY MEDICAL CORPS SCHOOL

As a follow up to the Central Command exercise on nuclear warfare, Exercise Dark Cloud, the Officer Training Company of the Royal Canadian Army Medical Corps School, Camp Borden, Ont., this summer conducted a cloth model exercise for unit officers. This exercise dealt with the medical aspects at divisional level, using the same tactical situation.

Canadian Officers' Training Corps exercises included several one-day Training Exercises Without Troops on company-level tactics, with the aim of ensuring that the cadets know the simple mechanics of each phase of war before going on to study the provision of a medical service in specific tactical situations.

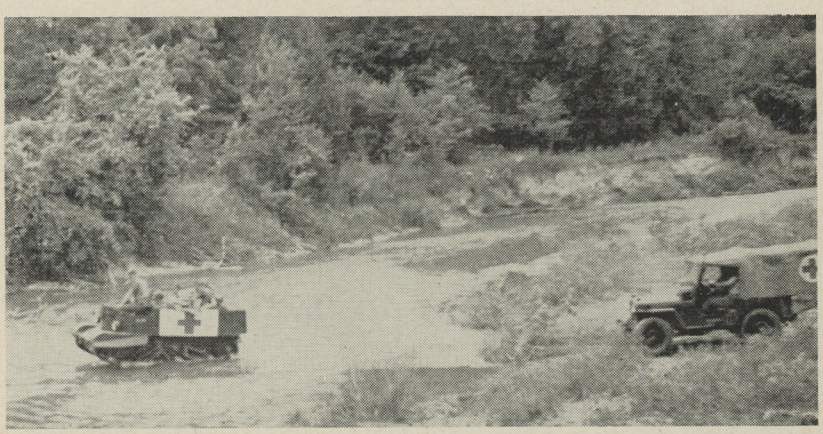
The first-phase COTC also had a two-week period in the field in shelter halves. The object of this training was to give them experience in living in a bivouac camp while continuing normal training. As the syllabus covered basic subjects best taught in the open, the camp was a contribution to good instruction.

A member of the COTC learns some of the techniques of mine warfare while taking Practical Training with the Royal Canadian Army Medical Corps.

The Depot and Recruit Training Company carried out Exercise Nighthawk. The aim of this exercise was threefold: firstly, to demonstrate the lessons learned on the sandtable and in the classroom regarding evacuation of casualties; secondly, to demonstrate the evacuation of casualties across various natural obstacles such as rivers and ravines; and, thirdly, to familiarize RCAMC recruit personnel with the vehicles and equipment normally used by a field ambulance and regimental medical establishment.

During Exercise Nighthawk emphasis was placed on the correct loading of vehicles, convoy discipline, and the establishing of forward medical installations both during the hours of daylight and darkness. Simulated casualties were collected from the forward company area and taken by stretcher-bearers to the Regimental Aid Post, where a medical officer would give professional first aid and initiate documentation. The casualties then were picked up by jeep ambulances detached from a field ambulance section, and removed to the Casualty Clearing Post where they would again be seen by a medical officer, loaded into a ¾-ton ambulance and evacuated to the Advanced Dressing Station. At the ADS, casualties

Field engineering during Practical Training for members of the Canadian Officers' Training Corps (RCAMC).



RCAMC Recruit Training during Exercise Nighthawk—evacuating casualties across a river obstacle.

received medical treatment, were documented, fed, classified and prepared for evacuation to rearward medical units.

Evacuation of casualties across natural obstacles was demonstrated and practised during this move of the casualties along the "Chain of Medical Evacuation". This was accomplished by using improvised stretcher-boats to cross rivers and cable crossings of ravines.

During the exercise user trials were carried out on a new RAP tent and a modified Canadian pattern stretcher.

* * *

THE ROYAL CANADIAN ORDNANCE CORPS SCHOOL

At The RCOC School in Longue Pointe, Montreal, the annual training cycle follows closely the pattern common to all Corps Schools of the Canadian Army in that during the summer the training of Officer Cadets of the Canadian Officer Training Corps is the primary training commitment. It replaces the larger winter commitment which is the conduct of recruit courses, trade courses, courses of professional and technical natures for Officers, Warrant Officers and Senior NCOs, and NCO qualifying courses. Also in the summer the RCOC School carries out a variety of activities in connection with the conduct of an annual RCOC Militia Summer

Honorary Colonel Commandant of The Royal Canadian Ordnance Corps, Brigadier H. B. Keenleyside, CBE, presents the RCOC Association Trophy for the most efficient RCOC Militia unit to Lieut.-Colonel G. F. Levie, Commanding Officer, No. 5 Ordnance Battalion, London, Ont.

Camp. This past summer has followed the usual pattern.

By the end of April most of the winter courses had ended as the first officer Cadets of the COTC began to arrive. Those Officer Cadets who reported before the commencement of the courses for which they were scheduled received a variety of training according to their experience and aptitude. They reviewed the training they carried out last year and many of them were instructed in driving, including a limited number who, having mastered the 6 x 6 Stores Truck, obtained their Driver (Wheeled) Class 1-5 qualification.

The Officer Cadets taking their first practical phase training spent 10 weeks on common-to-all-corps subjects followed by a two-week period in which they were introduced to RCOC responsibilities and organization. They were then given the opportunity to experience conditions with a RCOC field unit and at the same time to consolidate the knowledge gained during their first 10 weeks of instruction by attending a three-day exercise in the Ste Thérèse area north of

Montreal. During the same period those taking their second practical phase of training were instructed for five weeks in Ordnance activities within a unit and then spent five weeks studying RCOC field operations. They then took part in a two week exercise under field conditions in the Ste Thérèse area where they, in conjunction with the Officer Cadets training under the four-year Classical College Plan, operated a Divisional Ordnance Field Park and a Mobile Laundry and Bath Company. During this period they were subjected to mock attacks from the ground, with the RCOC soldier apprentices acting as the enemy. Air attacks were provided through the courtesy of the RCAF. To portray vividly to the cadets the effectiveness of their efforts in camouflaging their vehicles and unit sites, the RCAF took aerial photographs of the various locations.

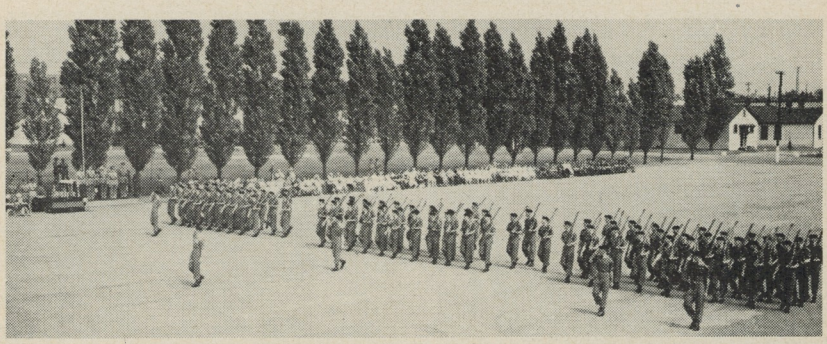
This year there was a marked increase in the number of Officer Cadets from Quebec Classical Colleges. These cadets came to RCOC after a 10-week course at La Cita-

Colonel J. B. Allan, CD, Director of Ordnance Services, Army Headquarters, Ottawa, presents the Sword of Honour to Officer Cadet R. A. Stevens.

delle, Quebec City, which was conducted during their first summer of practical phase training. These cadets take two nine-week practical phases of training at The RCOC School during each of two successive summers before qualifying as Second Lieutenants. This year there were sufficient of these Officer Cadets (who incidentally receive the bulk of their instruction in the French language) to permit the formation of two platoons, one for each part of the practical phase training. This provided a useful stimulus to inter-platoon competition. A number of Officer Cadets represented the School in the Quebec Command Track and Field Meet in July and gained 11 out of the 16 "places" that the School won in this event.

The COTC Training Programme culminated in a graduation parade on 30 August 1957 at the end of which the white flashes were removed from the shoulders of the Officer Cadets who had completed their second practical phase of training. The parade was reviewed by Colonel J. B. Allan, CD, the Director of Ordnance Services, who

Details of RCAF participation in the 1957 Militia and COTC exercises are worked out on the ground with the Commandant and officers of the School.



Soldier Apprentices march past during the graduation exercises at the School.

made a number of presentations and addressed the graduating class. Among the awards made were the Sword of Honour which went to O/Cdt R. A. Stevens, a candidate under the Officer Candidate Programme as the leading second year cadet, and a Sam Browne belt to O/Cdt G. J. Lastman of the University of British Columbia as the leading first-year cadet.

Concurrent with the first week of the COTC camp at Ste Thérèse, the RCOC Militia (Regional) Camp was conducted. A total of 61 officers and 161 men from RCOC Militia units in Eastern Canada attended and carried out a full programme. They received a day of instruction in the latest developments in tactical doctrine and in RCOC field operations in preparation for a three-day exercise under field conditions. For exercise purposes the units lost their separate identities and were formed into an exercise DDOS Corps and Staff, two exercise Headquarters, CROC Infantry Division, and two exercise Ordnance Field Parks. During the exercise which covered both the technical and tactical operations of these units they were subjected to ground and air attacks as were the COTC.

The camp ended in a parade, inspection and march past at which Brigadier H. B. Keenleyside, CBE, the Honorary Colonel Commandant of the Corps, presented the RCOC Association Trophy to No. 5 Ordnance Battalion, London, Ont., and the MacQueen Trophy to No. 1 Ordnance Battalion, Halifax, N.S., as winner and runner-up, respectively, in the annual RCOC Militia Efficiency Competition. He also presented the 34 Ordnance Ammunition Depot Trophy to No. 5 Ordnance Battalion as the best unit at summer camp.

Apart from the camp itself the School conducted Method "A" Phase 5 training for RCOC Officer Cadets. The two-week course given to these candidates comprised one week in the field with COTC and one week at the School and with neighbouring RCOC units gaining practical experience and being assessed on their knowledge on RCOC depot operations.

While the COTC and Militia training was in progress the Soldier Apprentice Training Plan was approaching its peak. In June the Soldier Apprentices wrote examinations set by Quebec Provincial Education Boards. As soon as these were finished they began preparing for their graduation exercises. These were held on 27 June with Colonel D. F. Purves, MBE, the Officer in Charge of Administration, Quebec Command, as reviewing officer. These exercises included an inspection and march past, presentation of trophies and a display of PT and drill.

The class which graduated this year concluded a 21-month period of instruction during which time they carried out Depot and Recruit Training, qualified as Storemen (RCOC) and Clerks Accounting (RCOC) Group I and, according to ability, advanced their academic standing by one or two grades. They have now gone on to their new units.

With the summer past the School is now fully into the winter series of courses. With new career courses for officers and a full slate of courses for men, the winter training period promises to be one of the busiest and most interesting in the history of The RCOC School.

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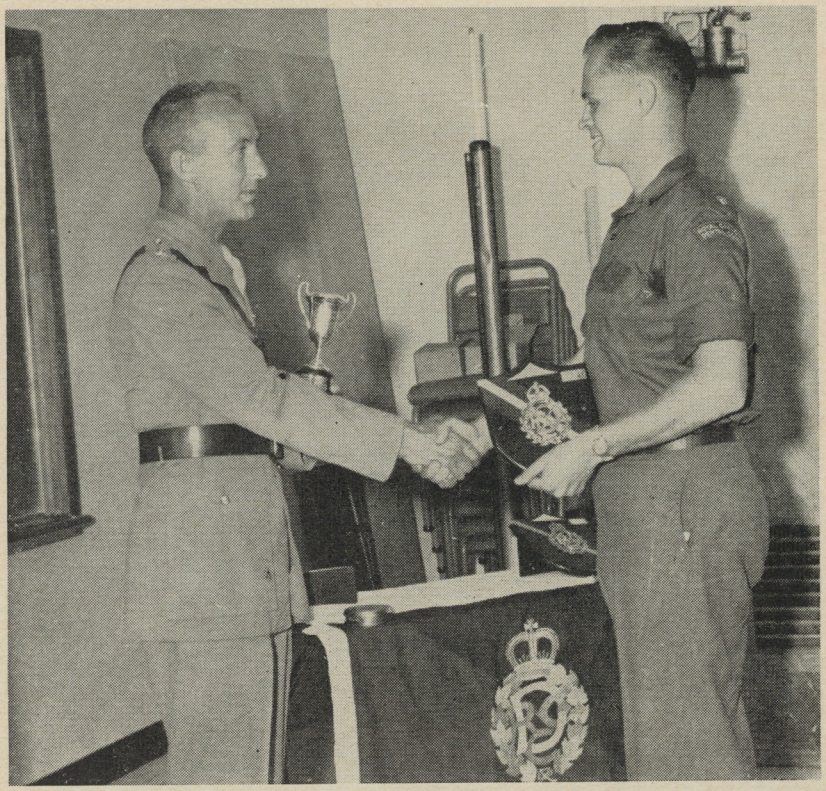
THE ROYAL CANADIAN DENTAL CORPS SCHOOL

The staff of The Royal Canadian Dental Corps School moved into their new building at Camp Borden in June 1957 and made preparations for the arrival of candidates from the Canadian Officers' Training Corps and the Regular Officers' Training Plan. The class reported on 3 July for third practical phase training, which was given during the period 2-26 July.

The course was made up of lecture periods, discussion groups, demonstrations, field exercises and squad drill; in addition, a considerable portion of the candidates' time was devoted to actual clinical procedures.



2nd Lieut. W. B. Hudgins receiving the Honour Cadet Trophy from Lieut.-Colonel B. P. Kearney, Commandant of the Royal Canadian Dental Corps School.

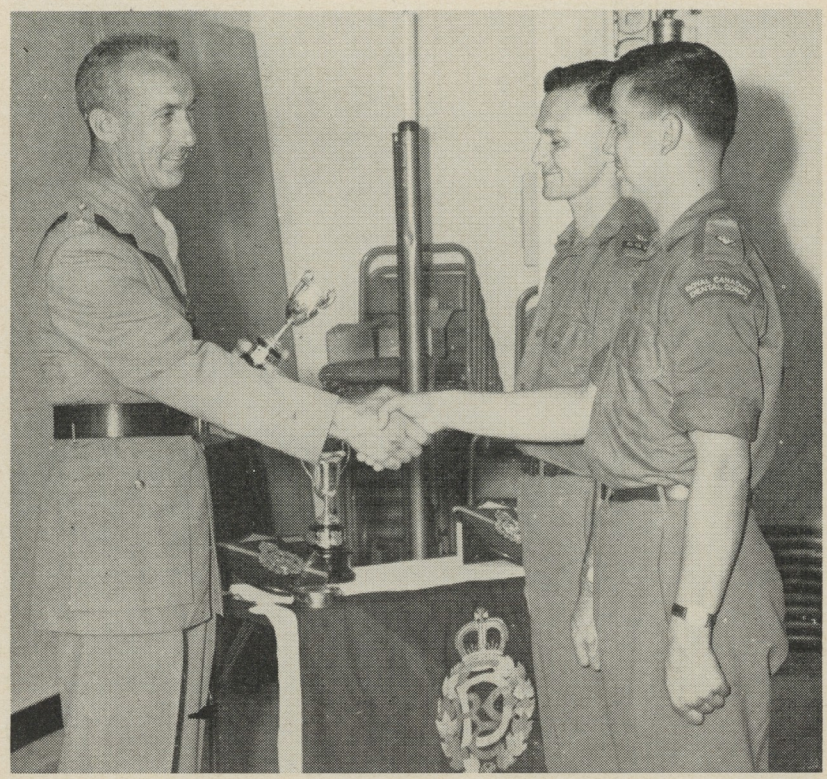
The subjects covered by staff and guest lecturers are outlined below:

1. Organization and administration in the RCDC, its tri-service role in peace and war, the system of supply, policy governing qualification and career planning, organization of Army HQ, Naval Service HQ and Air Force HQ, customs of the service as applicable to the Royal Canadian Navy and Royal Canadian Air Force.

2. Dental stores and equipment, their procurement and distribution, handling and maintenance, cataloguing, precious metals accounting, indenting.

3. RCDC treatment policy, preparation and use of various charts, forms, records and returns.

4. Clinical procedures pertaining to various branches of den-



2nd Lieut. F. Leduc and Officer Cadet C. Dorval receiving the Field Exercise Trophy from Lieut.-Colonel B. P. Kearney, Commandant of the Royal Canadian Dental Corps School.

tistry were discussed and methods used in RCDC clinics were explained. The candidates then were given the opportunity to carry out these techniques under supervision.

The purpose of the field exercise held once a week was to demonstrate RCDC field equipment. The various features of the mobile clinic were explained, and the setting up and packing of dental equipment shown. Competitions between candidate teams were held in the handling of field dental equipment.

A one-hour period of military drill was provided daily; this included marching, squad drill, paying of compliments, giving words of command, and mutual instruction.

An afternoon each week was devoted to organized sport, during which inter-university competitions

were held in volleyball, horseshoe pitching, and softball. Trophies are awarded annually to the winners of the sports events, the field kit competitions, and to the Honour Cadet.

The awards presented at the closing exercises to this year's winners were:

Sports—Volleyball team, University of Montreal.

Kit Competition—2/Lt F. Leduc, O/C C. Dorval, University of Montreal.

Honour Cadet—2/Lt W. B. Hudgins, University of Toronto.

Runner-up—2/Lt C. D. Mollins, Dalhousie University.

All Canadian universities having Faculties of Dentistry were represented by candidates on this course. Following completion of the third phase training at The RCDC School, these officers and officer cadets were posted to various dental clinics for further practical experience under the guidance of senior dental officers.

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THE CANADIAN SCHOOL OF MILITARY INTELLIGENCE

The Canadian Intelligence Corps National Camp was held at the Canadian School of Military Intelligence Camp Borden, Ont., during the week commencing 15 July 1957. It was attended by approximately one hundred officers and men of the Canadian Intelligence Corps (Mili-

The Junior NCO Course—musketry training.

tia) and a comprehensive training programme covering all aspects of Corps functions was carried out. In addition, two-week Language Conversation Courses were conducted, catering to both elementary and advanced students. Some seventy men and women attended, and they came from Regular and Militia components of the three services and from the Royal Canadian Mounted Police, and included selected civilian employees of the Department of National Defence.

The Militia units which participated in National Camp were:

No. 1 Intelligence Training Company, Montreal; No. 2 Intelligence Training Company, Toronto; No. 3 Intelligence Training Company, Halifax; No. 4 Intelligence Training Company, Vancouver; No. 5 Intelligence Training Company, Winnipeg.

The battle intelligence portion of the training was restricted to

Searching a line-crosser.

Interrogating a suspect.

an introduction to the basic principles and techniques of this subject. On the counter-intelligence side a four-day exercise was conducted in the field, and was concerned with the operation of a Divisional Field Security Section in the various phases of war. The air photo interpretation personnel were divided into divisional Army Photo Interpretation Sections formed by each Militia Training Company. They were exercised in all aspects of the functions of these units in the field.

In addition to this training, both Junior and Senior NCO qualifying courses were conducted, as were Special to Corps practical qualification examinations (Militia) for Lieutenant to Captain and Captain to Major. The closing events of the Camp included a final parade at which the various trophies won by the Intelligence Training Companies were presented.

THE CANADIAN ARMY TRAINING SCHOOL

The spring of 1957 brought an increase in the activities at the Canadian Army Training School, with the main effort being directed to the recruit training of the French-speaking "A" Squadron of the 1/8 Canadian Hussars at Camp Valcartier. The success in recruiting for this newly-formed first bilingual armoured regiment was apparent when more than twice the usual number of French-speaking recruits reported for training. Simultaneously, other French-speaking recruits continued to report, representing all other corps except infantry.

English Language Training

In addition to their normal recruit training, Royal Canadian Armoured Corps candidates require sufficient English to enable them to follow corps training at the RCAC School at Camp Borden, Ont. Army Headquarters, Ottawa, directed that a short English language course of eight weeks be given to bring these candidates up to the required standard. The course was started, with particular emphasis being placed on conversational English and the introduction of military terms.

English language training is also given on the twenty-week English course which is designed to produce future bilingual instructors. Most corps are represented on this longer course by potential or junior non-commissioned officers who have completed their corps training. After qualifying, these students will be able to help form bilingual cadres within their own corps.

French Language Training

The French language course is for English-speaking officers and senior non-commissioned officers who have volunteered to study French. Results so far are good with over eighty candidates qualifying, many of whom are now employed with either French-speaking units or with units stationed near French-speaking communities. Conversation is stressed but, in addition, a great deal of emphasis is placed on reading and writing.

Militia Assisted

Every summer the school assists in the training of the militia. Since early June more than 850 militiamen reported to the School for various courses. Five eight-

Quebec Command

MILITIA TRAINING—1957

The 1957 militia spring training season was the most successful to date. It began a new era of inter-arm co-operation during week-end field training exercises, the bulk of which took place at Farnham Camp. Militia Group staffs exercised a greater degree of planning and control over field exercises than heretofore and a system was instituted whereby Farnham Camp with its pool of vehicles, equipment and stores was allotted to each militia group in turn. Initially, emphasis was given to sub-unit training on the troop-platoon level with platoon and section tactics, fieldcraft and fire and movement forming the basis of instruction. As the training progressed exercises involving inter-arm co-operation on the troop-platoon, company-battery level were undertaken. The benefits derived from this training were reflected in the great interest and enthusiasm shown by all ranks.

Exercise Boom I

Units in the Sher area planned an interesting inter-arm exercise to round out their spring training, Exercise Boom I being held near Sher in May.

The exercise was part of a larger narrative in which a mythical 9th Canadian Infantry Brigade was attacking Magog. A force composed of Les Fusiliers de Sherbrooke, the Sherbrooke Regt. (12th Armoured Regt.) and one battery from the 46th Field Regt., RCA, was given the task of a right flanking attack in the area of St. Elie d'Orford. This force had service support from 8 Medical

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The Canadian Army Training School

(*Continued from preceding page*)

week courses were conducted. This included recruits, junior non-commissioned officers, senior non-commissioned officers, infantry signals and infantry weapons (MMG, mortar and anti-tank weapons). In addition, other courses of short duration were conducted, such as Method "A" Phases 3 and 5, for the Canadian Officers' Training Corps, senior non-commissioned officers practical, junior non-commissioned officers practical, film projectionist, band and the personnel selection officers' course.

Canadian Army Photograph

Members of the Victoria Rifles of Canada camouflage themselves during field exercises.

Company, RCAMC, and 24 Technical Squadron, RCEME. The initial phase of the exercise consisted of an advance to contact and the brushing aside of light opposition. This was followed by a company attack on an objective located on high ground dominating the exercise area. The troops gained practical experience in weapon handling and fieldcraft. In addition, officers and NCOs had the opportunity of exercising their "orders" technique.

Exercise Ubique

The artillery units of No. 10 Militia Group undertook the most ambitious corps training exercise held in recent years. The purpose of Exercise Ubique was to train officers in the deployment of field regiment, in their technical duties and to exercise them in man management. A composite field regiment was formed from 34 and 47 Field Regts., 2 Medium Regt., with 3 Locating Battery, RCA, supplying the survey troop. The 51st Medium Anti-Aircraft provided AA protection during the day and performed the role of enemy infantry during the night scheme. Communications within each battery was the responsibility of unit personnel with 11 Signal Regt. providing communications from

battery rear link to Regimental Headquarters. The exercise was conducted in three phases — an advance to contact and deployment, artillery support in the defence and, lastly, a withdrawal. Exercise Ubique resulted in excellent training in deployment procedures, Observation Post deployment, fire control, gun drills, wireless procedure and Command Post drills.

Engineer Training

The Corps Training carried out by 3 Field Engineer Regt. this year not only increased their military efficiency, but also gave them the satisfaction of performing a worthwhile public service. The unit was approached by a civilian charitable organization which operates a summer camp for underprivileged children. The camp property owned by this organization is located on two sides of a lake, and in order to expand further the facilities of the camp a bridge was required. The regiment agreed to undertake the task as a training exercise, the material being furnished by the camp and the unit supplying the manpower and labour free of charge.

Summer Camp

The summer camp period was very successful. All infantry units attending Valcartier Camp showed increased attendance over previous years. As all armoured and artillery units of this command attend summer camps in other commands it was not possible to continue the programme of combined arms training at Valcartier. However, all infantry units carried out interesting and worthwhile unit and sub-unit exercises. Stress was laid on the fundamentals of infantry training such as minor tactics, fieldcraft and fire and movement.

RCASC Exercise

Perhaps the most ambitious exercise conducted during the Summer Camp period was the one planned and executed by 2 Column, Royal Canadian Army Service Corps, in the lower St. Lawrence area in June. The base camp for this exercise was located at Lac St. Francois south of Riviere du Loup. From here the unit ranged far and wide, conducting a varied number of corps training exercises. These included mechanized movement by road, protection at the halt and on the move, selection and operation of ammunition and supply points, ammunition dumping programme, troop carrying and evacuation of casualties and supply by air, including the selection, layout and operation of a Dropping Zone.

THE 1957 MILITIA STAFF COURSE

By

LIEUT.-COLONEL H. F. WOOD (PPCLI), ARMY COUNCIL SECRETARIAT, ARMY HEADQUARTERS, OTTAWA

The 1957 Militia Staff Course Part II, held at the Royal Military College of Canada, Kingston, Ont., for two weeks in July and August, had the largest attendance in its history. More than 80 candidates came from across Canada to demonstrate to the Directing Staff that they had "acquired sufficient knowledge to fit them for command, or a Grade II staff appointment".

The Directing Staff, who were Staff College graduates of the Regular Army, found the students a hard-working, stimulating group. Major George Hulme, Royal Signals, an integrated officer from the British Army, said that he found the course unique in his experience. He was surprised and pleased to find civilians of such high calibre and professional standing, giving up their summer holidays to qualify themselves for Militia service.

Part II of the Militia Staff Course is the culmination of many hours of study and examination conducted under Part I of the programme. During Part I, which is held locally at unit and group Headquarters, officers study for examinations in Training, Tactics, Organization and Administration in Peace, Military Law, Military History and Administration in the Field. These examinations are held once yearly and the officer sits for the examination at a selected writing centre in his command. Examinations are sent to Army Headquarters where they are marked by a carefully selected board of qualified officers. Having completed Part I, they are eligible to proceed to Kingston for the two-week practical portion. There, accommodation is provided at the Royal Military College and the Army Summer Courses staff headed by Lieut.-Colonel D. H. Campbell administers the course.

The Canadian Army Staff College provides the Director for the Course. He supervises the preparation of the précis, questionnaires, exercises and problems.

This year, the Director was Lieut.-Colonel F. W. Wootton, ably assisted by Lieut.-Colonel G. R. A. Coffin. These officers had prepared a course which, as much as possible, was conducted on the ground, and covered the main phases of war. Even the exercise

on Training was practical, and students were given an area and told to prepare a TEWT.

The outdoor exercises over the wooded hills and pleasant farms of the Kingston area were the meat of the course, since students and DS alike were forced to fit theory to actuality. Whether or not to hold Spooner's Farm became a fiercely debated issue which was only resolved when the "reverse slope addicts" were given a taste of Mr. Spooner's sparkling spring water during a break in the discussion. After that, who would not defend it—on a hot day. The weather held fair, and there were ninety tanned and healthy-looking faces turned towards Brigadier M. S. Dunn as he gave the closing address.

The students came from every walk of Canadian life. There were engineers, lawyers, professors, salesmen and businessmen. There was at least one farmer and one Member of Parliament. Their military qualifications were equally diverse. Each syndicate had, within itself, a most varied background. Armoured squadron commanders who had fought at Falaise, worked with engineer company commanders who had built bridges in Italy. There were infantry officers from Newfoundland and Nova Scotia, and gunners from the Prairies and British Columbia. Interpreters from the Intelligence Corps in Montreal met guardsmen from Ottawa and ordnance officers from Toronto fought it out with highlanders from Winnipeg. Each had something to contribute to the syndicate discussions. The students were quick to discover that much night work was required, and put in long hours of preparation. When it was over, they said they had enjoyed it. So had the DS.

Honorary Physician to Her Majesty

Brigadier Kenneth A. Hunter, OBE, CD, MD, former Director General of Medical Services at Army Headquarters, Ottawa, has been appointed Honorary Physician to Her Majesty the Queen. The appointment is for a period of two years and is the second honorary appointment to Her Majesty that Brigadier Hunter has held. He was Queen's Honorary Physician in 1953. He is now a member and co-ordinator of the Canadian Forces Medical Council. —*From a report issued by the Directorate of Public Relations (Army).*

THE STUDY OF MILITARY HISTORY BY SERVICE OFFICERS

By

COLONEL C. P. STACEY, OBE, CD, DIRECTOR OF THE HISTORICAL SECTION, ARMY HEADQUARTERS, OTTAWA*

To discuss the place of military history in the education of a service officer really effectively, one would have to decide in the first place what sort of person a service officer ought to be. Should he be a man of wide general education? Is it enough that he should be a technician capable of handling certain items of complicated equipment? Ought he to be a student of the larger aspects of his profession? Or, finally, should he be simply a cheerful athletic moron?

During the latter part of the nineteenth century these questions were seriously discussed in many countries. The idea that an officer should be well educated in his profession gradually made headway, but it had to fight every inch against very powerful opponents holding well entrenched positions. In England the old Duke of Cambridge, who was actually Commander-in-Chief of the Army from 1856 until 1895, did all he could to prevent the advance of this dangerous notion. When someone proposed appointing a Staff College graduate to some post, he was heard to growl, "I know those Staff College officers. They are very ugly officers and very dirty officers."[1] An officer who read books was apt to be suspect, and as for one who *wrote* books . . . . ! In France, Marshal MacMahon observed, "I strike instantly from the roster of promotion every officer whose name I have read upon the cover of a book."[2] I gather that even the U.S. Army had similar obstacles to progress. Soldiers suffer from much the same occupational diseases in all countries. Today, most people pay lip service to the idea that an officer should be well educated, at least in a professional sense; and yet I suspect there are still some who feel in their secret hearts that, though it's probably a good thing on the whole that every officer should be able to read, it isn't really desirable that he should exercise the ability too often.

The fact remains that there is an enormous weight of fact and of

**This is a paper which Colonel Stacey read before the Military Librarians' Division of the Special Libraries Association at their meeting in Boston, Mass., on 28 May 1957.*—Editor.

authoritative opinion on the side of education, and particularly on the side of the study of military history. There have been few if any great modern commanders who have not been in some degree students of war; and there have been some who have been respectable historians in their own right. One might quote the views of Field-Marshal Lord Wolseley, one of the greatest British soldiers of the last century, who spent a great deal of time combatting the conservative ideas of the Duke of Cambridge. He wrote:

> I have no more desire than the Duke has for what he ealls 'military bookworms'. Any boy who has mastered the first book of Euelid ean learn and understand the theories of Jomini and Clausewitz and be a perfeetly useless soldier afterwards unless by hard thought he learns how to apply their theories to the ever-changing eonditions of war; and how are you going to train a man to think unless you encourage him to read? The idle and the ignorant say that an ounee of experienee is worth a pound of military history. Well, I say that the story of every great eommander of whom I know gives the lie to that. It is often said that a man who writes well eannot be a good soldier; most of the great eommanders, from King David, Xenophon, and Caesar to Wellington, not only wrote well, but extremely well.[3]

There is one American example that always seems to me a powerful one—and that is the career of Stonewall Jackson. Jackson did of course have valuable experience in the field in the Mexican War; but for ten years before the Civil War he was out of the army and out of the main stream of military activity, working as a professor of physics and artillery at the Virginia Military Institute. This might have seemed an unpromising background for field command. But the fact is that, during those years at Lexington, Stonewall was training his mind. He trained it by reading; especially by reading military history, and above all apparently the history of the campaigns of Napoleon. The result was that when his opportunity arrived in 1861, Professor Jackson came out of the Virginia countryside ready to grasp it; and all the world knows what happened.

Stonewall was a reader and a doer, not a writer; but as Lord Wolseley says there have been good generals who were good writers too. Perhaps one shouldn't dwell too much merely on the fact that so many of the great commanders of modern times have written their memoirs. After all, there are special considerations which beckon famous men on to literary effort. And if the effort is too much for them, there is always the ghost writer, who is ready, like the Society for the Prevention of Cruelty to Animals, to speak for those who cannot speak for themselves. But some generals have written good books before they became famous. Consider, for

instance, the case of Lord Wavell, generally considered one of the ablest British commanders in the Second World War, who wrote in the 1920s an excellent volume on the Palestine campaigns and later a good biography of Lord Allenby.

Putting it in practical terms, what will the study of history do for a service officer? I can tell you at once what it *won't* do for him. It won't provide him with ready-made solutions for every tactical or administrative situation. History is said to repeat itself—but it doesn't repeat itself *that* much. The officer who tries to solve his problems by consciously searching the historical precedents will soon lose his battle—or his war. What history *will* do for an officer is to help him prepare and condition his mind for his own tasks—as it helped Stonewall Jackson. Let us remember the wise saying of Marshal Foch: "The truth is, no study is possible on the battle-field; one does there simply what one *can* in order to apply what one *knows*. Therefore, in order to *do* even a little, one has already to *know* a great deal and to know it well."[4] Weapons and tactics change; but the principles of war and the fundamental principles and problems of military leadership don't change. There is much to be learned from observing the great (and less great) commanders of the past at work—from the study of humanity at war. Humanity, for better or for worse, is much the same as it was centuries ago. The qualities of mind and heart that go to the making of great captains can be clearly discerned in the historic campaigns of which we have detailed records—and the study of them is fascinating as well as profitable.

It follows from all this that the topics that an officer can explore to the best advantage are *operations* and *leadership*. He will get nothing much to advance his career out of devoting time to antiquarian pursuits such as the study of old uniforms, weapons, and the like, which attract many an officer. Such studies make very interesting hobbies, but that is really about as far as they go.

What campaigns should an officer study? The fact is that some value can be extracted from the study of any campaign of any age, provided solid facts about it are available. (Fuller's *Decisive Battles of the Western World* begins with the Persian Wars of Greece, about 480 B.C. Some other students start even earlier.) In some ways, the most recent campaigns are the most valuable—because the weapons and tactics are supposedly up to date; and

yet, in an age of rapid transition like our own, the experience of the last war may be quite misleading. In other ways, the rather more distant campaigns are even more useful, because they have been more fully studied and more documents are available. (Documents come out of hiding only gradually.) For the study of *leadership*, it is still the case that no war is more valuable than the American Civil War.

What books should one recommend? On this, of course, one could talk all night. But at the risk of stating what could hardly be more obvious, I might venture to divide the *valuable* books into two great categories. (The *useless* books, the shallow efforts based on no real knowledge, are best forgotten.)

First, we have the books written by people *who were there*, and write from personal knowledge. In this category fall, for example, the books by General Eisenhower and General Bradley; the German publications such as *The Rommel Papers* and Guderian's *Panzer Leader;* and the tremendous contributions of Sir Winston Churchill. Needless to say, personal memoirs often suffer from personal prejudice and limited viewpoints, as well as national bias. It's worth noting that the most valuable personal books are those which are founded on contemporary diaries or other records. An author who writes from mere memory, particularly some years after the events, is utterly unreliable as a source of information; nothing is more certain than this.

Secondly, you have books written by people who do not possess personal knowledge but have made a deep study of the documentary sources of information. In this category fall such books as, let us say, Kenneth P. Williams' *Lincoln Finds a General*, or Chester Wilmot's *The Struggle for Europe.* Here are the great biographies: books like Henderson's old but still vivid *Stonewall Jackson and the American Civil War*, and Freeman's *R.E. Lee.* Here, too, come the official and semi-official histories. I hope you all realize the excellence of the histories the U.S. services are publishing about the Second World War. In my own work I often have reason to bless Dr. Kent Roberts Greenfield and his staff at the Department of the Army, who are producing books distinguished by high objectivity and exact research. Such volumes as Forrest Pogue's *The Supreme Command* are models of what an official history ought to be. The U.S.A.F. history edited by Wesley Frank Craven and James Lea Cate is in the same class. And here, so close to Harvard, it would be

an unpardonable omission if I did not pay my humble tribute to Admiral Morison's magnificent *History of United States Naval Operations in World War II.* Admiral Morison is this country's leading practitioner of the fine—and almost lost—art of writing history which combines in the highest degree the virtues of authenticity and of literary excellence and power. At the same time his history comes as close as such a tremendous work can come to being a one-man job. I take off my battered hat to him.

Service officers, like other readers, are too prone to read uncritically. They tend to believe too easily anything they see in nice smooth print. Therefore, whenever I am asked for advice, I beg them to cultivate a critical approach. Objectivity is something that historians are supposed to strive for, but seldom attain. Most historians wear blinkers of one sort or another—the blinkers of national prejudice, of service prejudice, or of purely personal prejudice. The reader should watch for the historian's blinkers—and he might also consider occasionally whether he may not be wearing blinkers himself.

In any serious book, after all, what matters most is *authenticity.* The only books that really repay study are those based on genuine knowledge. And they are also, frequently at least, the most interesting—because they give one a real reconstruction of the period and the events.

For this reason, I think we should encourage the service officer not to be afraid of the big solid books. He is of course by nature a great lover of outlines. Particularly when studying for an examination, he asks for a little handbook that gives him the answers in a simple "potted" form. In such circumstances, no doubt, outlines have their place. My own office is spending a good deal of time producing them. But I sometimes have serious doubts about them. I am sure we should encourage our clients to regard them merely as introductions to a study which is presented more thoroughly and also more interestingly in the standard books. Only careful reading of the big books will give the reader the means of forming a critical judgement of his own about the events and their lessons—and this is the only sort of judgement that has much value.

This leads me on to the question of whether an officer gets more out of compulsory study of military history or out of mere private reading. In the Canadian Army we make our officers study a lot

of military history, particularly in our promotion examinations and in the examination for entrance to the Staff College. I think we do rather more of this sort of thing than the British Army or the U.S. Army, and I think we're right to do it, for it's better that officers should study history compulsorily than that they shouldn't study it at all. But I'm sure also that there is nothing like private reading, and our programme has largely failed if it doesn't encourage the officer to go on and become a student of war on his own. That is where the library comes in. It's desirable that the officer should have his own collection of books; but unless he is unusually wealthy, and unusually persevering as a collector, he will find the means of real private study only in a service library or a public library.

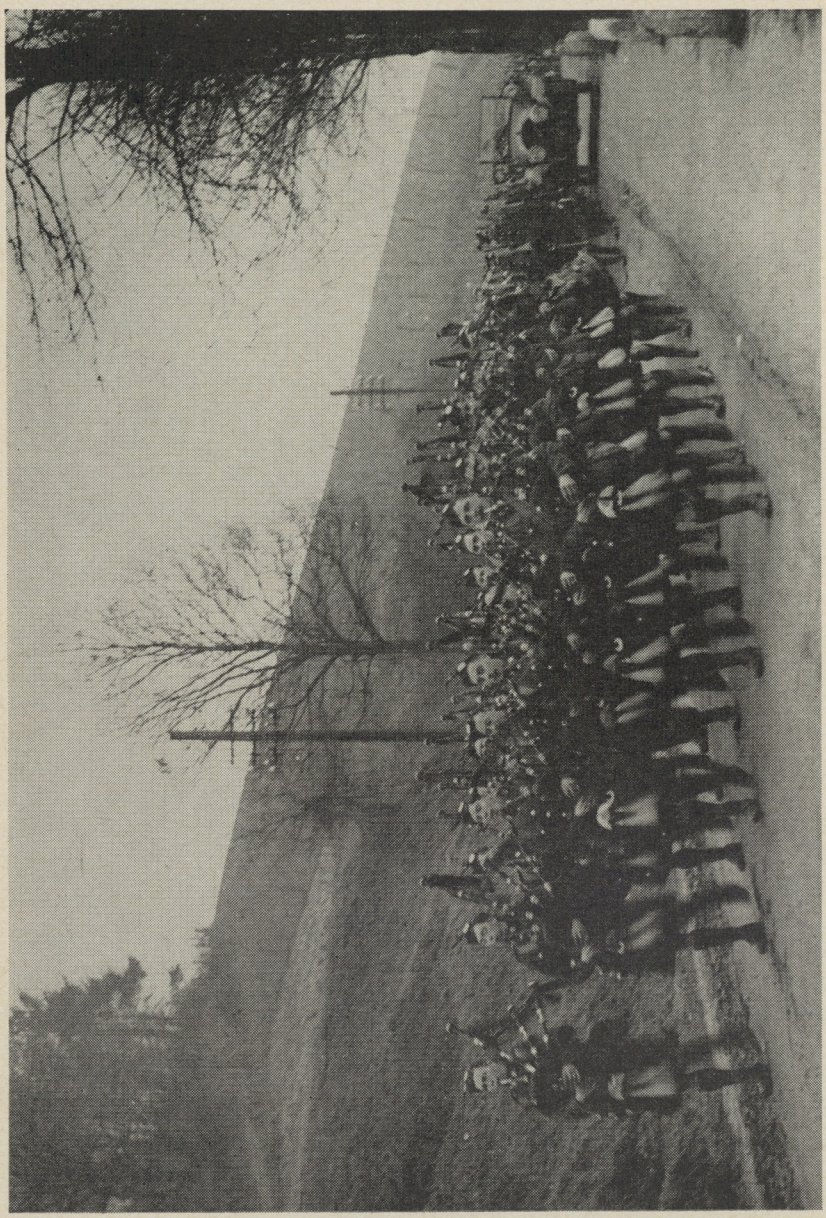
I was asked to say something about the librarian's problem—how do you encourage officers to read the books that are available to them in your libraries? The doors are open, but not enough people come through them. People persistently refuse to accept the riches that are spread before them.

Frankly, I don't know the answer. The old proverb says, You can lead a horse to water but you can't make him drink. The librarian can try to ensure that his particular community knows that his library exists. He can circulate the news that it is continuing to receive the new books that are being discussed (in your community, assuming that books *are* discussed there, or at any rate in national periodicals which some of your clients are bound to read); and that it has the old good books that readers of this and earlier generations have profited by. The expedients for doing this will vary with the local circumstances. Thus you can at least indicate kindly to the horse that the water is available. If the animal declines to partake, you have done your best for him, and the loss is his.

I am moderately certain of two things. First, the officers who make serious use of your library will always be a minority, and often perhaps a rather small minority. Secondly, that minority is sure to contain a large proportion of the officers, in your unit or your community, who are destined for high distinction.

NOTES

1. Sir F. Maurice and Sir G. Arthur, *The Life of Lord Wolseley* (London, 1924), 236.
2. General Charles de Gaulle, *La France et son armée* (ed. Beyrouth, 1943), 221.
3. Maurice and Arthur, *Wolseley*, 235.
4. Marshal Foch, *The Principles of War*, trans. Hilaire Belloc (2nd ed., London, 1920), 5-6.



Flashback: No. 20

THE 15th BATTALION C.E.F. LEAVES GERMANY, 1919

NARRATIVE SUPPLIED BY THE HISTORICAL SECTION,
ARMY HEADQUARTERS, OTTAWA

The photograph on the opposite page shows the 15th Battalion (48th Highlanders of Canada) of the Canadian Expeditionary Force marching to entrain for Belgium on 8 January 1919, following their tour of duty with the Army of Occupation in Germany.

In the First World War the 48th Highlanders of Canada raised three battalions for service in the Canadian Expeditionary Force. Two of these (the 92nd and 134th Battalions) got only as far as England, being used as reinforcement battalions. The 15th Battalion served in France and Flanders from February 1915 onward, with the 3rd Brigade, 1st Canadian Division.

After the Armistice, the 1st and 2nd Canadian Divisions served for a time in the Allied force which was sent to Germany to ensure that the Armistice terms were observed. With pipes playing *Blue Bonnets over the Border*, the 15th Battalion marched across the German frontier from Belgium on the cold, dry morning of 7 December 1918. These were the first kilted troops which the onlooking Germans had yet seen. Six days later the Highlanders crossed the Rhine at Cologne, in which area they remained on occupation duty for the next three and a half weeks. On 7 January 1919 the 15th Battalion's part of the Cologne Bridgehead was divided between two British battalions. On the morning of that day, the Highlanders staged their second-last ceremonial parade on German soil. Their courteous and soldierly conduct had so impressed the German civilians that many, who at first had been sullen and suspicious, lined the route to bid them a warm farewell. Next day the Battalion entrained for Belgium at Bensberg, to which it is seen marching. It returned to Canada four months later.

The smart 1918-model staff car seen accompanying the column serves to remind us that this otherwise modern-appearing photograph was taken nearly forty years ago.

BRITISH STRATEGY 1939-1941

Reviewed by Colonel C. P. Stacey, OBE, CD,
Director of the Historical Section, Army Headquarters, Ottawa

The first two "Grand Strategy" volumes of the United Kingdom's official history of the Second World War were reviewed in the *Journal* in April 1957. Written by John Ehrman, they covered the final period of the war. We now have another volume,* written by Professor J. R. M. Butler of Cambridge, the general editor of the whole series of military histories. It deals with the period from the outbreak of war in September 1939 to the German attack on Russia in June 1941. A volume dealing with pre-war planning is still to appear, as are volumes on the years 1941-43.

Mr. Butler's volume, while possessing the same considerable virtues as Mr. Ehrman's, has at least one all its own in addition. Whereas Mr. Ehrman took no note whatever of the Commonwealth, Mr. Butler is well acquainted with that institution and gives careful attention to Commonwealth matters. (I take back what I said about Cambridge.) His book is thus better rounded than Mr. Ehrman's and will be more useful as a record of experience. One point that emerges is the difficulty of Commonwealth consultation at a moment of crisis when time presses. For example, of 16 June 1940, when the British Cabinet had to deal with the request of the French to be released from the pledge not to negotiate separately with Hitler, Mr. Butler writes, "The issues now raised were of vital interest to the Commonwealth as a whole, but the Cabinet agreed that the emergency was too pressing to allow of prior consultation with the Dominions." The Cabinet was doubtless right, and yet such a situation is hardly satisfactory.

We cannot possibly mention more than a few of the points of general strategic interest that emerge from this 600-page volume.

* *Grand Strategy*. Vol. II, September 1939 – June 1941. By J. R. M. Butler. (Obtainable from United Kingdom Information Service, 1111 Beaver Hall Hill, Montreal; 100 d'Youville Square, Quebec, P.Q.; 275 Albert St., Ottawa; 119 Adelaide St. W., Toronto; and Mercantile Bank Building, 540 Burrard St., Vancouver 1, B.C.) $7.82, postpaid. 1957.

As early as April 1939 the British and French staffs agreed on a strategic programme, in the event of war with Germany and Italy, which was in fact a rather close forecast of actual British policy later: after a defensive phase, "Our subsequent policy should be directed to holding Germany and to dealing decisively with Italy, while at the same time building up our military strength to a point at which we shall be in a position to undertake the offensive against Germany"; everything possible should be done to secure the benevolent neutrality or active assistance of the U.S. Allied policy during the Russo-Finnish war early in 1940 was so unrealistic as to be almost incredible. The British and French planned "an operation which combined assistance to Finland with control of the [Swedish] ore fields", and proposed to send a small force in through Narvik to seize the mines, while putting other troops into Finland, and stealing a British corps from France to help defend Sweden against Germany. Thus they were prepared to risk involvement in war with Russia on top of the war they were already fighting with Germany. At the same time their expectation of Scandinavian co-operation was quite unfounded. It was fortunate for the world, in the long run, that the brave Finns were forced to capitulate before the Allies could put their infatuated schemes into practice.

British strategy after the collapse of France is treated in detail. Officially, at least, the British never despaired of final victory, even when "we stood alone"; but they did not believe that it could be won by landing an army on the Continent. Economic pressure and a mounting air offensive were to be Britain's weapons; when Germany had been worn down by attrition, however, a relatively small striking force might be sent across the Channel to elinch the matter. It is interesting that in June 1941 the Future Operations Section of the Joint Planning Staff in London wrote, "The effort involved in shipping modern armies with the ground staff of Air Forces is so great that even with American help we can never hope to build up a very large force on the Continent." Apparently "American help" in this case meant active belligerency. In the light of what actually took place, this appreciation was pretty pessimistic.

Slowly, the story of the relationship between the civil and military powers builds up, and we get more information on how much British soldiers resented the interference of Mr. Churchill in purely military

matters. One of the most interesting things in this volume is an obviously very private letter which Sir John Dill, then C.I.G.S., wrote General Auchinleck on 26 June 1941, after Auchinleck had been appointed to command in the Middle East in place of Lord Wavell. Dill wrote:

> From Whitehall great pressure was applied to Wavell to induce him to act rapidly, and, under this pressure, he advanced into Syria with much less strength than was desirable and in the Western Desert he attacked before in fact he was fully prepared. The fault was not Wavell's, except in so far as he did not resist the pressure from Whitehall with sufficient vigour.
>
> You may say that I should have minimised this pressure or, better still, that I should have seen that, having been given his task in broad outline, he was left to carry it out in his own way and in his own time. I might possibly have done more to help Wavell than I did, but I doubt it. The fact is that the Commander in the field will always be subject to great and often undue pressure from his Government. Wellington suffered from it: Haig suffered from it: Wavell suffered from it. Nothing will stop it. In fact, pressure from those who alone see the picture as a whole and carry the main responsibility may be necessary. It was, I think, right to press Wavell against his will to send a force to Baghdad, but in other directions he was, I feel, over-pressed.

The burden of Dill's advice to Auchinleck was, "Do not be afraid to state boldly the facts as you see them."

This is an admirable book, scholarly, gracefully written, and frank without being blunt. Like others in the series, it is unfortunately not documented as to unpublished sources; but it does cite fully the material that is in public print, and this indicates that Mr. Butler has flung his net widely. Even from a limited Canadian viewpoint there are few points to criticize. The treatment of the British Commonwealth Air Training Plan seems rather inadequate. Although General McNaughton's mission to France in May 1940 was an attempt by the authorities in London to influence the campaign then going on, it is not mentioned. Since it was not mentioned in the volume on the campaign either, the British official historians have a perfect score on this episode. The author accepts Lord Alanbrooke's recollection that he had not heard before leaving England in June 1940 of the scheme to defend Brittany—though the 1st Canadian Division, after consultation with Alanbrooke, had drawn up a draft operation instruction defining the task of his corps as to hold a line across the base of the Brittany peninsula. Like every English writer, Mr. Butler mis-spells Wendell Willkie's name; he also speaks of "MacKenzie" King. But these are secondary or tertiary points. We are much in Professor Butler's debt, for this volume and for the series at large.

NEW ZEALANDERS IN ITALY

Reviewed by Lieut.-Colonel G. W. L. Nicholson, CD,
Deputy Director of the Historical Section, Army Headquarters, Ottawa.

Not the least challenging problem confronting the Combined Chiefs of Staff from time to time during the Second World War was that of dealing with the wishes of the various Commonwealth governments regarding the employment of their respective forces. On such occasions "the claims of strategy and politics" often conflicted, and not infrequently the latter won. Thus Canadian troops saw action in the Mediterranean, not because their services were demanded by the Allied commanders in that theatre, but because of strong representations from Ottawa that an operational role be found for them. In the case of the 2nd New Zealand Division, however, the shoe was on the other foot. It was the Combined Chiefs who sought that formation's participation in the Italian campaign; while the government at Wellington was just as anxious to recall the division (which during more than two years' service in the Middle East and North Africa had suffered 18,500 casualties) and transfer it to the Pacific fighting.

The manner in which a decision was reached is revealed in the first* of two volumes on the Italian campaign recently published in New Zealand's series of official histories of the Second World War. In May 1943 the New Zealand House of Representatives weighed the opposing arguments behind closed doors. A maximum contribution by the Dominion to Allied effort in the South-West Pacific would help ensure British influence at the peace table; it would be natural for public opinion in the country to favour employment of New Zealand troops nearer home; and the example of Australia, who had already brought home her three divisions from the Middle East in the face of "every military argument" by the Combined Chiefs, might not lightly be ignored. But other considerations prevailed: the unavailability of shipping for transporting an entire division to the Pacific; the imminence of large-scale operations in Southern Europe and the repeated requests by Generals Alexander and Montgomery for the retention of the

*_Italy_. Vol. I, _The Sangro to Cassino_. By N. C. Phillips. War History Branch, Department of Internal Affairs, Wellington, N.Z., 1957. 25 shillings.

New Zealanders to take part; the institution of a scheme of home furlough for veterans of the division; the urging of General Freyberg, the divisional commander, that his veterans should end together what they had begun; and above all an eloquent appeal from Mr. Churchill, who declared that the intervention of the New Zealand Division on European soil would "constitute a deed of fame to which many generations of New Zealanders will look back with pride." Canadians will learn with interest of the proposal by Montgomery in April 1943 that the 2nd New Zealand Division should remain in the British 30th Corps alongside the 51st Highland Division for the invasion of Sicily. But time did not permit the necessary amphibious training, and instead of the New Zealanders it was the 1st Canadian Division that assaulted across the Pachino beaches.

The book covers the grim fighting by the 2nd New Zealand Division on the Sangro-Ortona front and at Cassino, from mid-November 1943 to the end of the following March. It was that period of frustration when General Alexander's armies felt the full impact of Field-Marshal Kesselring's decision to hold a German winter line south of Rome. While Canadians were battling across the Moro and blasting German paratroopers out of the rubble of Ortona, a dozen miles inland New Zealand troops were held in a bitter but fruitless struggle for the hilltop town of Orsogna—"Stalingrad of the Abruzzi". Three major attacks ended in failure, and cost more than 1600 casualties. Most of these losses were from the six infantry battalions, a weakening which served to demonstrate that the division's peculiar organization of two brigades of infantry and one of armour was not well suited for campaigning in Italy.

In mid-January the New Zealanders, leaving Orsogna in German hands (it did not fall until June), moved from the now static Adriatic front to join the Fifth Army in the west. In the light of the formation's forthcoming employment in front of the Cassino bastion there is more than a little irony in the Army Group instruction for the transfer: "The task of this division will depend on the course of the operations, but it is primarily intended for exploitation, for which its long range and mobility are peculiarly suited." Concerted thrusts by three corps against the Gustav Line and an assault landing by a fourth at Anzio were intended to open the way for a New Zealand pursuit up the Liri Valley. This was a task

requiring a larger organization than one division could supply. The 4th Indian Division was brought over from the Adriatic to join the 2nd New Zealand Division in a temporary New Zealand Corps under General Freyberg, who was succeeded in the command of the Division by Maj.-Gen. Howard Kippenberger.

But instead of passing through a door thrown open for it, the New Zealand Corps found that "it would have to open the door for itself". On 11 February General Clark's Chief of Staff telephoned General Freyberg: "The torch is now thrown to you." "We have had many torches thrown to us", commented Freyberg. The Corps task was to capture the dominating Monastery Hill with the Indians, and with the New Zealand Division to cross the Rapido and seize the Cassino railway station. Freyberg was assured all available resources, "including the maximum effort in the air". On the morning of the 15th 143 Flying Fortresses and 112 medium bombers destroyed the Abbey of Montecassino with 576 tons of high explosive.

The author closely scrutinizes the circumstances of the bombing of the monastery and his analysis is one of the most penetrating yet to be published. Of the half dozen monks and thousand or more refugees within the monastery when the bombs fell, upwards of 300 perished in the ruins and many more were wounded. The destruction of the historic Benedictine shrine was widely publicized as a wanton act of terror and vandalism, the diarist of the 14th Panzer Corps noting that "the bombing of Montecassino was used to the utmost for propaganda purposes". Was Montecassino a military objective? After sifting the evidence of the actual inmates, the statements of German commanders, and captured German documents, Major Phillips concludes that "it is no longer possible to affirm that the Germans had occupied the monastery for military reasons before 15 February." But none of this evidence was available at the time to the Allied commanders, whose responsibility for their men's lives left them with only one choice —to act as though the abbey was in enemy hands. To the troops at the foot of the mountain the building "was a constant intruding presence; it looked into everything, it nagged at their nerves and became a phobia and an obsession." To storm the mountain was unthinkable without an attack on its dominating edifice.

Arguing that the command of the New Zealand Corps having fallen heir to the battle of Cassino

had no alternative to demanding the bombing of the monastery as a tactical necessity (even though tactically it turned out "an almost unmitigated failure"), the author criticizes the strategy "that chose for repeated attack the strongest point in a defensive line of remarkable strength", and suggests that another strategy (such as was adopted in May) might have spared the abbey and the lives of those who died in the ruins.

The unsuccessful February attack was followed in March by the twelve-day battle wherein the New Zealand Corps fought to a deadlock with German paratroops for possession of the town of Cassino —which bombardment by air and ground had systematically reduced to rubble. Although the stubborn enemy retained part of the ruins, the ground gained by the New Zealanders was to give flank protection for the Eighth Army's May offensive across the Rapido River. The New Zealand Corps ended its short life of seven weeks, having suffered nearly 1400 casualties. And, observes Major Phillips, the battle directed notice to some neglected aspects of warfare "such as the art of street fighting", besides teaching "lessons of greater novelty, particularly on the use of heavy bombers in close support. . ."

In his preface the author defines his approach as one of "considering what is going on in the minds of the commanders and the destinies of their intentions." He seems to have maintained this aim, and the result has been to provide the student of military history— whether professional or amateur —with an absorbing study of one of the less spectacular but none the less significant chapters of the Italian campaign. The text is enhanced by some excellent photographs and a number of well-drawn maps, several of them in colour. The book is not documented, although there is frequent evidence of a judicious use of captured enemy sources.

Pick and Shovel

The military art of the shovel and the pick has altered very little in the course of centuries. It is unlikely that its importance will diminish in the future.—*Lieut. J. W. Kennon in the Marine Corps Gazette (U.S.).*

MAINTIENS LE DROIT

Reviewed by Major T. M. Hunter, Historical Section, Army Headquarters, Ottawa

To the world at large—whether on Parliament Hill, Pall Mall or viewing the Hollywood screen—the Royal Canadian Mounted Police represent a distinctively Canadian virtue. They personify, above all else, quiet efficiency and unflinching determination. In uniform they are always noticed, yet they are always unobtrusive. They invariably generate confidence by their mere presence. What manner of men are these? How are they produced? Does the reality of their existence measure up to the accepted ideal? These are some of the questions Alan Phillips has tried to answer in *The Living Legend.**

Seven years ago the late J. P. Turner published two portly volumes on the history of the North-West Mounted Police during the first two decades (1873-93) of its existence. (The Force acquired the designation "Royal" in 1904, changing its title to the present form sixteen years later.) Turner's work, very detailed and based on deep research, is "the official and departmental history" of the Force's early years. By comparison, Mr. Phillips has not attempted anything as ambitious. Although his slender volume is sub-titled *The Story of the Royal Canadian Mounted Police*, he has really contented himself with a series of connected episodes on themes illustrating the Force's work and traditions. Some of these episodes, such as those concerning the Mad Trapper of Rat River and, more recently, the Valdmanis case in Newfoundland, are familiar stories. Others, less familiar, but equally interesting, serve to reflect the wide range of investigations and responsibilities of the Force.

From the point of view of variety of experience, Mr. Phillips would appear to be well qualified for his task. It is reported that he has worked as a lifeguard in Florida, as a ranch hand in Texas and as a naval rating on the Atlantic. He has also served the National Film Board and worked as a free-lance writer in various parts of Canada.

The military mind will probably be interested in a section of the book entitled "The Crucible", in which the recruiting and training

* *The Living Legend: The Story of the Royal Canadian Mounted Police.* By Alan Phillips. Published by Little, Brown & Co., Boston & Toronto, 1957. $4.50.

methods of the R.C.M.P. are described. It is not surprising that the essence of that training is encouragement of self-reliance and adaptability. For, according to Phillips, it is in the isolated one-man detachments that we find "the fundamental quality" of the Mounted Policeman.

In British Columbia, the Maritimes and the Prairie Provinces, he's a game warden, fisheries inspector, shipping registrar and census taker. In the Yukon and the Northwest Territories, where public officials are few and far apart, he's a magistrate, postmaster, coroner and sheriff, customs collector, measuring surveyor, immigration inspector and tax collector. He issues licenses for dogs, cars, game, furs, timber and mining claims. He reports on the weather, pays Family Allowance cheques and performs marriages.

Before the Second World War the R.C.M.P. refused to advertise for recruits; since the war their restrained advertisements have attracted about 2500 applicants each year—but more than 90 per cent are rejected.

The training of the R.C.M.P. is tough and thorough. Recruits are grouped in squads of 30 men and for nine months they endure a steady diet of "barracks, drill hall, classrooms and gym". Besides the obvious requirements—discipline, skill on the shooting range, in the boxing ring and on the mat —they receive instruction on more than a hundred subjects. They are trained to observe accurately, to avoid legal pitfalls favoured by defending lawyers, to always remain calm in emergencies. But it is the scope of the training that is most impressive by Service standards.

The recruit is drilled in the Criminal Code, customs and excise laws, banking procedures and Indians' rights. He's harangued on the causes of juvenile delinquency. He's taught to classify different types of grain, wood and cattle brands. He's instructed in the intricacies of counterfeiting and handwriting. His tutors enlighten him in the science of cultivating informers, shadowing suspects, organizing a search party, throwing a gas bomb and using a mine detector (for finding such things as hidden weapons). He comes fresh from a lecture on public relations and is detailed off to scrub out the barrack floor on his hands and knees.

On the average, three out of the carefully selected 30 in each squad fail this formidable course. We may well believe that "by the time sixteen instructors have appraised a recruit, the R.C.M.P. has a fairly shrewd opinion as to what kind of policeman he will make."

In a section entitled "The Secret War" the author describes briefly the Force's unceasing struggle with subversive elements of the population. He takes us back to the unhappy days of the Regina riots (1935), when the R.C.M.P. measured up to perhaps the most difficult task of all men in uniform—dealing with civil disorder on a large scale. Four years later the R.C.M.P. moved quickly against

another menace. "On the first day of World War II R.C.M.P. agents broke the German-financed Canadian fascist group *Deutsche Arbeits Front*, interning four hundred Nazis. The German fifth column was so completely demoralized that not one case of sabotage was traced to a Nazi agent."

Phillips leaves no doubt in our minds that the Communist threat was (and is) much more difficult to combat than the comparatively clumsy efforts of Nazi sympathizers. Russia's entry into the war complicated matters; but in 1945 the Gouzenko case resulted in the exposure of Colonel Zabotin's activities, with widespread international repercussions. The R.C.M.P. were mainly responsible for solving this important case. Yet it is probably wise to recollect that this was only an incident in an unending struggle. We are forcibly reminded that elections in recent years have revealed more than 60,000 Communist sympathizers in Canada—of these at least 6000 are party members.

Perhaps not inappropriately, nearly one-half of *The Living Legend* is devoted to the Mounted Policeman's role as "The Investigator". Twelve types of investigations, including the Valdmanis case, are examined in some detail. These accounts highlight the importance of "routine"—systematic records of many policemen contained in a "crime index"—as an indispensable aid to the solution of crimes.

Phillips' final section, "The Frontier", seeks to establish a direct link between the tradition built up by the Force in its early days in western Canada and the work of the R.C.M.P. today in the Arctic and sub-Arctic regions. Incidentally, it is interesting to note that in the far north only 140 Mounted Police, in 43 outposts, represent law and order in a belt stretching from Labrador to the Yukon. In the course of investigating a murder among the Eskimos in 1942, one constable "covered 3550 miles, interviewed 750 Eskimos, recorded 50 births, 52 deaths, two marriages and gained 20 pounds in weight."

The Living Legend does not, perhaps, tell us much about the R.C.M.P. that we did not already know or surmise. Many of the incidents described are well-born journalistic themes. Others, such as the dramatic meeting between the Force and Sitting Bull, after the latter had settled accounts with Custer on the Little Bighorn, have already been described in detail in Turner's history. On the other hand, it is a pity that the book neglects the fine overseas record of the R.C.M.P.

YUGOSLAVIA TRANSFORMED

Reviewed by J. Mackay Hitsman, Historical Section,
Army Headquarters, Ottawa

Coming out of a cinema into the London blackout one wet evening late in 1943 my companion observed that the situation in Yugoslavia was far more complex than that depicted in the Grade B movie we had just seen. Whether or not the real Colonel Mihajlovic bore any resemblance to the heroic figure who had been scampering across the screen was immaterial, for most of the guerilla fighting seemed to be the work of Communist-inspired Partisans led by a shadowy figure calling himself Tito.

Within a few months the general public learned something of how this self-styled Marshal Tito was rapidly freeing Yugoslavia from domination by the Axis. The story of how King Peter was quickly discarded once the war had ended and Yugoslavia proclaimed a federal republic is better known, as is the success subsequently achieved by Tito in shaking off the domination of Moscow and adopting an independent brand of communism. But the fact that the "art of playing off one great power against another was a long-established tradition in the Balkans" is not. This, and the whole background of dispute among the South Slav

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Maintiens le Droit

(*Continued from preceding page*)

in the Canadian Army: they formed No. 1 Canadian Provost Company in 1939, serving throughout the war with the 1st Canadian Infantry Division. We would also have welcomed a more detailed description of the headquarters organization in Ottawa—the work of the "A", "C", "S" and "I" Directorates, and the Air and Marine Divisions.

But Phillips has performed a useful service by consolidating much familiar material and condensing it into an interesting and attractive volume. He has produced something more interesting than any "whodunit"—illustrations of the application of knowledge, intelligence and determination to the solution of actual cases. He has also produced a challenging book, which may make many potential recruits wonder whether they have the high qualities demanded by this splendid Force.

peoples of the Balkans, is emphasized in Fitzroy Maclean's well written study of the life and times of Josip Broz-Tito.*

An earlier and autobiographical volume, *Eastern Approaches* (London, 1949), describes Fitzroy Maclean's experiences among communists, in Russia as a member of the British Embassy's staff during 1937-9 and in Yugoslavia as head of the British Military Mission accredited to the Partisans. This background has enabled him to sift the printed evidence, detailed studies of Balkan politics and history as well as personal reminiscences and apologias, and draw what would appear to be unbiased conclusions.

Although a youthful Josip Broz had been severely wounded and captured by the Russians while fighting in the Austrian Army during the Great War, this erstwhile peasant did not become a military leader until well advanced into middle age. Then, like Julius Caesar and Oliver Cromwell, he displayed marked tactical and strategical ability during the struggle against German, Italian and renegade forces.

But it was only an unemployed machinist who returned to the new kingdom of Yugoslavia with a young and pregnant wife in 1921, after having taken part in the Russian Revolution and deciding to concentrate his life to the spread of world communism. Such was the bitterness felt by Croats, Slovenes, Bosnians, and Montenegrins towards the Serbs who dominated the Kingdom and supplied its monarchy, that becoming a disciple of Marx and Lenin rather than a loyal Yugoslav presented no mental problem. Harassed by the Royalist police and forced to spend several years in prison, life was not easy. The Party made little progress under absentee leadership and the Comintern had been giving some thought to its disbandment in Yugoslavia, before it was decided in 1937 to appoint Josip Broz to the post of Secretary General.

Such was his faith in communism and the infallibility of the Kremlin leadership that he was able to accept "the increasingly blatant opportunism of Soviet policy, the jettisoning, one after the other, of so many basic Marxist principles, the increasing subordination of all else to the narrowest personal interests of the *Vozhd* [Stalin] himself." It was only after the "Second Imperialist War"

* *Disputed Barricade: The Life and Times of Josip Broz-Tito, Marshal of Yugoslavia*. By Fitzroy Maclean. Clarke, Irwin & Co. Ltd., 103 St. Clair Ave. W., Toronto 7, Ont. $5.00.

had become the "Fatherland War, the People's War for Freedom and Democracy", following Germany's surprise attack on Russia in June, 1941, that he began to have doubts. Admittedly the U.S.S.R. was hard pressed by the Wehrmacht, but it was difficult to understand why the Partisans' appeals for arms and ammunition were brushed aside or even ignored. Tito's charges against the Royalist Cetniks, many of whom were collaborating with the enemy and attacking Partisan groups, were discounted and Radio Moscow continued to credit Colonel Mihajlovic as being the leader of Yugoslav resistance. Furthermore, not until a British Military Mission had been with the Partisans for some time did Red Army representatives arrive. These proved to be interested primarily in taking over control of Partisan operations and, when Tito refused to agree, seemed content with demanding more of the amenities of life than guerrilla warfare could provide. Tito's changed opinion of the Russians was soon revealed on occasions such as the weekly conferences when he discussed the supply situation with the heads of the two missions:

> First he would ask the Head of the British Mission what supplies he could expect from British sources. The scale of British assistance was now steadily increasing and the reply was usually not unsatisfactory. He would then turn to General Korneyev. 'And what, Mr. General, can *you* do to help us?' he would ask amiably. Once more the unhappy General would be obliged to explain that, as there were no Russian airfields in reach of Yugoslavia, his country was unfortunately not able to take part in supplying the Partisans. 'In fact,' Tito would say drily, 'you can do nothing.' And the following week the performance would be repeated. Each time, as General Korneyev, limping slightly, made his way down the steep, rough path leading to the cave, Tito's wolfhound Tigar would growl threateningly at his heels. 'An anti-Russian dog,' Tito would say, and laugh.

Although Stalin did not appreciate the increasingly independent attitude being adopted by Tito, he was willing to bide his time. However, unlike the communist parties of the other satellites who were able to form governments only in the wake of the advancing Red armies, Tito and his Partisans managed to free their own country. Thus, when the time finally came for a trial of strength, Stalin failed either to oust Tito from leadership of his own followers or even to whittle him down to manageable size. The open breach caused by Yugoslavia's expulsion from the Cominform in 1948 merely caused its dictator to look to the West for material assistance. Despite the coaxings of Stalin's successors, Tito has continued to remain aloof. In effect, he has refused to tie his fortunes to either side in the continuing Cold War.

THE FIGHTING MAORIS

Reviewed by Colonel N. G. Wilson-Smith, DSO, MBE, Director of Infantry, Army Headquarters, Ottawa

Most Canadian regiments are now struggling with the writing and financing of their war histories. Apart from the much-appreciated co-operation and advice from our Historical Section, no outside support, financial or otherwise, is available. In New Zealand, its War Historical Branch is apparently able to write and publish official histories down to battalion level. This is one of the benefits of being a small country and one which takes an enlarged but justifiable pride in the accomplishments of its army and is prepared to support the telling of its story.

The New Zealand War History Branch has produced a varied series of histories—even one on an ammunition company. Its editorial staff is impressive both in its literary skills and military background. It is headed by Major General Sir Howard Kippenberger, KBE, CB, DSO, ED, who rose from battalion commander to divisional GOC and is the author of "Infantry Brigadier", a first class fighting-man's story. His assistant, a brigadier, at one time commanded 28(Maori) Battalion whose history is under review.* The New Zealand War History Branch comes under its Department of Internal Affairs. This detachment from the Defence Department, among other benefits, ensures that its funds are not scrutinized by men more concerned with the expensive needs of the present than with the accomplishments of the past.

As a history this is distinguished and impressive work. It is simple, coherent, well illustrated with good action photographs and beautifully drawn maps, and is, above all, believable. Its research is exhausting to contemplate; for example, every time an officer or a man is mentioned, a foot-note gives his last rank and decorations, date and place of birth, his pre-war occupation and a brief of his service.

This volume tells the story of a battalion raised from Maori volunteers (by law they were exempt from the National Service Act) being assembled and dispatched

* *28 (Maori) Battalion (Second New Zealand Expeditionary Force)*. By J. F. Cody. Official History of New Zealand in the Second World War Series. Prepared under the supervision of the War History Branch, Department of Internal Affairs, Wellington, New Zealand. 17/6d.

overseas. We follow its training in England, its first fight in Greece, the *débâcle* of Crete, the early retreats in the desert, Alamein and the pursuit to Tunisia, the battles up Italy and the ending of its fighting days with the Yugoslav partisans on the Italian border. The book traces the gradual emergence of a fighting battalion from a battalion of fighters. With each battle the unit's skill and professionalism improves until it collectively exploits to the full the individual Maoris' courage and fighting qualities. This pattern is not new and this telling of it introduces no new thoughts or ideas on how a battalion is fully trained for war.

The policies which have guided the white administration of the Maoris are often held up as an example of enlightened handling of a dark-skinned native population. The Maoris are a proud people with a warrior tradition and as fighters are often compared to the Gurkhas. In organizing and handling the Maori Battalion, their traditions and fighting qualities were skillfully drawn on. Companies were organized from the main Maori tribes and tribal identity was preserved, the celebration of feasts and warrior dances were encouraged, and, most important, Maoris were permitted to command their own people. The battalion was initially commanded by some Pakeha (white) officers but as the Maori officers got more experience they took over the key jobs in the battalion, and judging from their exploits a fine lot of fighting officers they were. New Zealand's good education system and its acceptance of the Maori as an equal ensured the development of such officers. As GSO 1 of the Commonwealth Division in Korea, my driver was a Maori, as was one of the GSO-3's. My association with this loyal soldier and excellent officer makes it easier for me to understand the success of the Maori Battalion in the Second World War.

As a unit history this volume is recommended to those who make regimental histories a hobby, or to those who face the imposing task of writing a unit history and would like a model. As a book, however, its interest is limited. Some Canadians might have met the Maori battalion during the Rimini battles when the New Zealand division was under Canadian command, and would like to renew acquaintances. For those looking for examples of good small unit actions, the Maoris at Tebaga Gap, the attack on Takrouna, and the defence of Cassino station are particularly recommended.

In brief, a good history about good soldiers.

AN EXTRAORDINARY SIEGE

Reviewed by J. Mackay Hitsman, Historical Section,
Army Headquarters, Ottawa

Failure to adhere to commonly accepted principles of war, which merely are based on common sense, generally has resulted in disaster. Yet, just over 100 years ago—at the outset of the Indian Mutiny—a mixed force of less than 3000 British and loyal native troops laid siege to the ancient capital of Delhi, containing upwards of 40,000 mutinous sepoys who had been trained to European standards and were plentifully supplied with artillery and ammunition. Far from being able to invest the city, whose seven miles of walls had been designed by a British engineer to withstand any likely assault, the tiny but optimistic force of besiegers camped along a single, exposed rocky ridge. As a further absurdity, large parties of mutineers, still wearing their red coats, sallied forth almost daily to attack them; indeed, late arrivals thus were "blooded" before being permitted to join the turbulent garrison.

How the besiegers persevered throughout a sultry summer, with temperatures hovering around 120 degrees for days on end until the rains came to increase the incidence of cholera, and finally accomplished their purpose is the subject of a very readable volume* by a Second World War veteran of the Burma Campaign. He first encountered "The Red Fort", then a transit camp, on his way back to England in 1946.

Although there is considerable controversy among Indian historians as to whether or not the Great Mutiny was a first outburst of nationalism, the westerner is justified in regarding it as purely a military revolt. Fighting was limited to central India and only the East India Company's Bengal Army was involved. There had been clear indications for some years that all was not well with this force, but officialdom had chosen to ignore the signs, which had included unit mutinies. Undoubtedly these sepoys had real grievances, unlike those who served in the smaller Bombay and Madras Armies: there was no provision for families to move with units; official practice deliberately was to avoid

* *The Red Fort:* An account of the Siege of Delhi in 1857. By James Leasor. (British Book Service (Canada) Ltd., Toronto, Canada). $4.25.

paying long service pensions, when at all possible; and Brahmins in the ranks ran the risk of losing caste should they have to cross the sea on active service. But England and Englishmen were ignorant of the real India and, unfortunately, content to remain so: thus, the issuance of a new type of greased cartridge was eagerly accepted as the prime cause for revolt.

Following the initial outbreak at nearby Meerut on Sunday, 10 May 1857, the Mutiny tended to centre in Delhi, where the last Mogul Emperor had been ending his life as a pensioner of the East India Company. During the first crucial days the British Commander-in-Chief and his staff were *en route* to the summer capital of Simla and out of touch with both the Governor-General in distant Calcutta and the disaffected division at Meerut, where General Hewitt proved himself to be completely incompetent. Too old and set in his ways at 70 years of age to hold any command, Hewitt was too obese to sit a horse or give any positive orders when the first units mutinied. Although his artillery commander, Brigadier Archdale Wilson, who eventually took over the Field Force gathered outside Delhi, was only 54 years of age, he was to prove merely a "stout, gallant Englishman". Even after Wilson had finally agreed to what he considered a foolhardy assault of Delhi on 14 September, he retained private reservations and was all too ready to call it off.

Fortunately there were able junior officers, including the future Field Marshal Lord Roberts, V.C., then a subaltern in the Bengal Horse Artillery. Others, however, like the erratic Major William Hodson who had raised a regiment of irregular horse, lacked proper perspective and went to absurd lengths to urge an early assault, despite the fact that no plan of attack had been worked out.

According to existing staff procedures, the control of siege operations had been vested in the Engineers, who thus became virtually a separate General Staff. But the Chief Engineer was without experience of active service; completely at the mercy of a passionate, young Persian wife who had accompanied the force, he soon had to be replaced. Thenceforth, however, active control of operations was firmly grasped by young officers, for whom promotion became rapid due to mortality from illness and enemy action.

Although the ground was so hard that graves could not easily be dug, it does seem rather strange that no steps were taken to get rid of the carcasses and corpses that lay al-

most everywhere. The result was a constant plague of flies which spread disease and foul odours which contrasted sharply with the luxuries of food and drink enjoyed by most messes. Enemy guns on the walls and the almost daily attacks also took their toll. Without a Florence Nightingale, the hospital situation was chaotic. Yet, when the day came for the long awaited assault, many crept from their beds for the battle. Although the parade state of the 75th Foot showed only 43 other ranks as fit, some 396 men turned out.

The assaulting columns suffered heavy casualties even before the breached walls were crossed, and Brigadier John Nicholson (long remembered on the North-West Frontier as the great "Nikkul Seyn") was fatally wounded while leading his men against the Lahore Gate. Being well armed and desperate, the mutineers fought ferociously from house-to-house and street-to-street. As well as being physically exhausted by the end of the first day, most of the troops had become drunk on looted wine and liquor. By the time they had sobered up, a natural reaction had set in and the men insisted on continuing in a more cautious manner. Thus five days were required to clear the city.

Cawnpore had yet to be avenged and Lucknow relieved, while mopping up operations were to continue for many months, but the backbone of the Mutiny was broken with the capture of Delhi.

RCAF Staff College Journal

The attention of army officers is drawn to the publication in November of the RCAF Staff College Journal, a non-official annual published in the interests of the professional officer and the student of military affairs.

The 1957 issue will contain an Air Power Symposium, with articles by Dr. Bernard Brodie, Air Marshal Sir Robert Saundby, Wing Commander John Gellner and Professor J. I. Jackson; also Professor R. A. Preston on The Soldier, the State and Military Education; Dr. W. E. Blatz on Conformity v. Non-Conformity; and many other articles and reviews of topical interest.

The price of the annual is $1.00, and orders should be addressed to The Editor, RCAF Staff College Journal, Armour Heights, Toronto 12, Ont. Gift subscriptions are also available.

ORGANIZATION PAT

Reviewed by Major B. W. E. Lee, CD, Command Provost Marshal, Headquarters, Eastern Command, Halifax, N.S.

The Story of Pat O'Leary, GC, DSO, *Croix de Guerre* (Belgian and French) is told in the book *The Way Back* by Vincent Brome.* Pat O'Leary was the *nom-de-guerre* of Dr. Albert Guérisse, a medical officer in the Belgian Army. After the fall of France, he was trained as an agent and sent back. He joined forces with Ian Garrow and set up an escape organization in the south of France.

The escape organization was widespread and elaborate, covering both occupied and unoccupied France and extending into Belgium and Italy. British airmen were sent out of Europe via Spain or by sea from the Mediterranean coast. Some of the escape trips are described in detail showing the elaborate, yet casual organization. The reader will be amazed at the success attained under such circumstances, and amazed, too, at the courage and devotion of those who made it possible. There was a variety of motives which inspired the members of the "Organization Pat" but even in the discouraging days of 1940 and 1941, none seemed to lose faith in ultimate victory.

Pat O'Leary was betrayed by one of his own agents in March 1943 and captured by the Germans. In the hands of the Gestapo he suffered the questioning and torture to be expected. Stories of this nature are not new any longer and one gets the impression that it has all been said before. However, it is an important part of the story and shows the amount the human mind and body can endure. Pat made his "confession" in the end but was able to fabricate sufficiently to nullify any value it might have to the Gestapo.

Moved from one camp to another he eventually reached Dachau and was there during the epidemic of typhoid fever. His medical knowledge was valuable but he was handicapped by a complete lack of medical equipment and supplies. Hundreds died and Pat contracted the disease but survived it to form the International Prisoners Committee. This committee gradually assumed control of the camp as the Allied advance neared and was able to prevent the massacre of most of the prisoners.

On the outbreak of the Korean

* *The Way Back*. By Vincent Brome. British Book Service (Canada) Ltd., Kingswood House, 1068 Broadview Ave., Toronto 6, Ont. $3.50

War he volunteered for that front. Again he was decorated for bravery. Today Albert Guérisse is once again a doctor in the Belgian Army where his fantastic adventures began.

This book cannot be called a military history except that of an individual. It is well-written, interesting tale told in the third person and reads like a novel. For one who likes his adventure stories to be true, it is recommended, as it is also for those who realize how much one man, in his own way, can contribute to the victory of the nation.

The Western Front; 1914

FROM A REPORT ISSUED BY THE DIRECTORATE OF PUBLIC RELATIONS (ARMY), ARMY HEADQUARTERS, OTTAWA

The Historical Section of the General Staff has just published through the Queen's Printer a book entitled *The Western Front, 1914*, Army Headquarters has announced.

It was written for the use of officers of the Canadian Army studying military history, but is on sale to the general public. It describes and analyses the famous campaign centring on the Battle of the Marne, and also deals with the background of the war, the war plans of the contending powers and the state of military science, tactics and weapons in 1914. It contains 192 pages and is illustrated with 18 maps.

Since Canadian forces did not take part in this campaign, there is no reference to them. The Historical Section is, however, preparing for future publication a one-volume history of the part played by the Canadian Army in the First World War.

The Western Front, 1914 may be obtained from the Superintendent of Government Publications, Department of Public Printing and Stationery, Ottawa, for $1.00 Canadian funds (postpaid in Canada and U.S.A.).

NATO Bases

West Germany has agreed to build 29 air bases for North Atlantic Treaty forces in addition to the 19 already in use in that country. Units of the new West German Air Force will occupy some of the bases, all of which are expected to be ready for use by the end of 1959.—*News Report.*

Exercise Eastern Star

(*Continued from page 11*)

by the Division. By first light the Division was firm on its Phase 2 line some 5000 yards east of the Nerepis River.

During the night the Fantasians had managed to destroy three crossings with nuclear missiles, and at 0700 hours two further missiles near Summer Hill destroyed part of the 1st Guards and 1st RCHA.

Before first light the Divisional Commander commenced bringing across the 4th Brigade consisting of 1 RHC and the Second Battalion, the Royal Canadian Regiment, to mount Phase 3 of his attack, which was the capture of Hibernia and Blue Mountain. A counter-attack towards Cootes Hill at 0830 hours by the Fantasians, supported by nuclear missiles, delayed the start of this phase. However, at 0900 hours the Division fired three nuclear missiles into the enemy delaying positions and at 1230 hours the Phase 3 objectives had been captured and the "Cease Fire" was given.

Air Support

Throughout the exercise close ground support was given both sides by F86 and T33 aircraft of the RCAF.

Conclusion

The exercise served to illustrate many of the problems that exist at both the staff level and unit level when using nuclear missiles in ground operations. The knowledge thus gained will be useful in carrying out further studies in tactics and organization during the coming winter.

Atomic Fire-Power

The Army should be capable of employing atomic fire-power at the battle group level, of engaging and defeating a quantitatively superior enemy through superior tactical and logistics mobility, vastly increased fire-power capability, battlefield intelligence, control and command facilities. This capability to employ the destructive effects of nuclear fire-power, selectively, places the Army in the unique position of being able to defeat the enemy's land forces and control the sources of his land-power without destroying the foundations upon which a firm and lasting peace can be built at the cessation of hostilities.—*Lieut.-General James M. Gavin (U.S. Army)*

BATTLE IN MUD AND MARSH

REPRINTED FROM THE MAY 1957 ISSUE OF THE *Military Review* (U.S.)
BY COURTESY OF THAT PUBLICATION*

The beginning of 1943 saw the troops of the German Caucasus front retreating all along the line. The Seventeenth Army, which included the XLIX Mountain Corps, was being forced directly westward. In general, the retrograde movement straddled the Kuban River and was accomplished successfully by the utilization of numerous successive lines of resistance.

The combat area under discussion includes the eastern coastal region of the Sea of Azov, an unparalleled wasteland covered with water and water grass. This broad marshy region with its many open water areas had been transformed into a sea of bottomless mud and marsh by the spring thaw. What ice still remained was softened and weak and no longer capable of supporting any weight.

Only a few low terrain elevations and scattered, artificial dikes rose above the inundated rice fields and pasture lands. The estuaries in the northwestern portion of this region, with their numerous branches, were lined with water grass the height of a man's head. A few isolated farms and villages with their miserable clay huts formed the only settlements. Through this marshy region—universally regarded as impassable at this season of the year—extended a few paths known only to the native inhabitants. A larger highway—at this season also converted to mud—connected the town of Swistelnikoff with Anastasijewskaja, the seat of the XLIX Mountain Corps Headquarters. On the southern edge of the marshy region the only paved highway of the Kuban region ran from the east to the Taman Peninsula.

The weather increased the difficulties of the terrain. It rained, except for short interruptions, almost incessantly during the days of the fighting. A solid mass of clouds hung down over the rain-drenched land. The nights were long and pitch-dark; heavy veils and banks of fog arose out of the marshland.

Defence

The enemy forces who succeeded in attacking over this supposedly impassable terrain consisted of three Soviet brigades with a total

**Digested from an article by Alex Buchner in* Wehrkunde (*Germany*), *July 1956*.—Editor.

strength of around 3000 men. They had been specially selected and organized for their particular task and were led through the marshland by guides familiar with the region. In addition to numerous rapid fire weapons, the Soviets were equipped with heavy weapons and knocked-down cannon. Their long advance through this inundated and marshy region testified in an impressive way to the toughness of the Soviet infantry.

The German XLIX Mountain Corps which was withdrawing to the north of the Kuban had difficult situations to overcome. At the beginning of March the corps, with its 6th Division, had occupied the Paula Line along the Protoka River. The withdrawal from this position was very difficult. The entire terrain and even the few roads leading westward were completely turned to mud, immobilizing the motorized and horse-drawn columns of the corps. Thus as far back as Anastasijewskaja, over a stretch of about 30 miles, an almost unbroken column of more than 7000 vehicles lay motionless, bogged down in the mud. To save this valuable transportation, the front had to be held until the weather and labour forces had improved the roads. In continual violent frontal attacks from the east, the enemy, supported by artillery, tanks, and ground-attack planes, attempted to break the front of the corps without success.

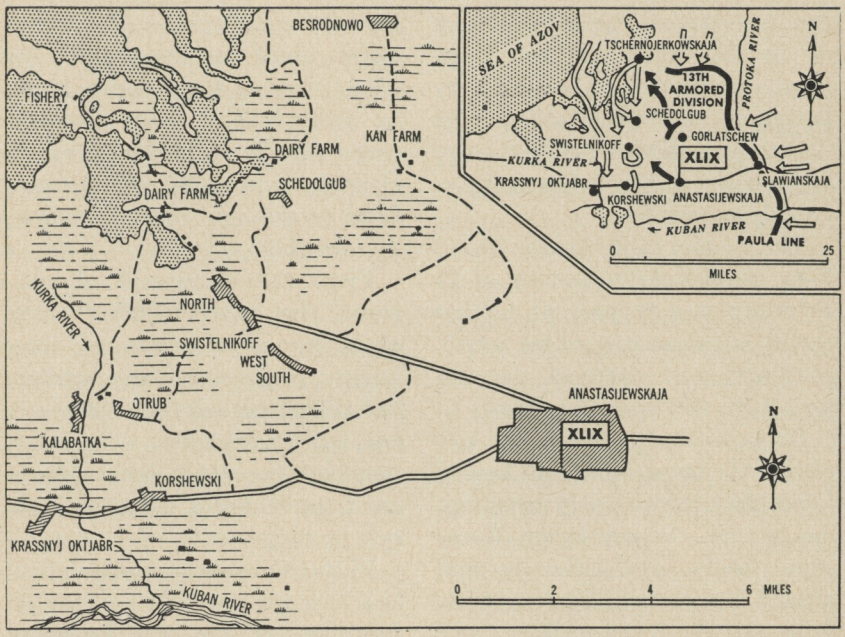
Finally, however, an unanticipated attack from the north and rear through the weakly secured lagoon region of the coast of the Sea of Azov struck the corps flank on 25 February.

By the night of 26-27 February reconnaissance elements reported enemy forces in Korshewski. (See map).

By this envelopment the Soviets not only threatened the corps' ammunition dumps, but also blocked the only supply route. By bringing up additional forces they could deal crippling blows against the entire corps rear area, and even attack the hard-fighting front from the rear.

Immediate countermeasures against this threatening danger included the necessity for halting the penetration to be followed by counter-attacks to restore the rear area security. To this end all rear units (already organized into alarm battalions and companies) were alerted. Security lines were established along the Kurka River with the mission of preventing the enemy from penetrating farther.

The 13th Armoured Division attacked northwest toward Tschernojerkowskaja to cut off the enemy salient and prevent further move-



ment of reserve forces southward over the lagoons. Intensive reconnaissance was established in a generally western and northern direction.

Counter-attack Plans

Even while these first countermovements were getting under way, commands were sent out by the corps to free all possible forces from the front and to assemble them around Anastasijewskaja. The decision was made to attack the enemy movement in its flank, to intercept its advance, and annihilate the enemy forces which had effected a penetration. To this end, Attack Group West was formed from all the detachments of forces slowly making their way through the mud and arriving at Anastasijewskaja. Their command was entrusted to the commander of the 1st Mountain Division, Colonel von Stettner.

Even before this newly formed combat team became operative, the corps engaged the 4th German Bicycle Regiment which was available immediately. Its 4th Battalion was to seize Swistelnikoff and the route leading to it as a possible point of departure for the German

counter-attacks. The 2nd Battalion of the 4th German Bicycle Regiment, supported by an artillery battalion, was to attack in the direction of Korshewski in order to open the supply route again as quickly as possible.

The mission given Attack Group West on the early morning of 27 February was to prevent further enemy advances toward the south, southwest, and southeast; to counter-attack and annihilate him.

Orientation concerning the enemy, the terrain, and the German forces did not give a very encouraging picture. Strong enemy forces were firmly established in and around Korshewski, Krassnyj Oktjabr, Otrub, Swistelnikoff, and Schedolgub. Weak German security forces, as in Schedolgub, had been attacked and scattered. Enemy forces had succeeded in reaching the large route on the south. At the moment, these attack points were remaining passive. The main body of the enemy was approaching, now being at the dairy farm northwest of Swistelnikoff. Prisoners had declared that the enemy's mission was to block the road at Krassnyj Oktjabr and cut off the corps' supplies.

Since it was without cover and passable only with difficulty, the terrain was quite unfavourable for a counter-attack. The employment of motorized, mechanized, or horse-drawn units was impossible. An advance could be considered only by infantry and heavy weapons carried by it. The emplacement of artillery would have to be confined to the only route leading to Swistelnikoff.

From the standpoint of command the mixed combat team, made up of elements of three infantry regiments, three artillery battalions, a cavalry squadron, two anti-tank battalions, a construction battalion, and signal detachment, presented a definitely difficult problem.

With the route to Swistelnikoff as a base for assembly and the 1st Battalion of the 4th Regiment fighting there, the starting point for the counter-attack was fixed. The combat team order of 27 February provided that the combat team would attack the east enemy group on 28 February at 0800 and gain and hold the line Schedolgub —dairy farm as a primary objective. tive.

The 42nd Infantry Regiment on the right and the 1st Battalion of the 4th Bicycle Regiment on the left would make this attack.

The 42nd Infantry Regiment was to take Schedolgub and drive the enemy back into the lagoons.

The 4th Bicycle Regiment was to seize Swistelnikoff and the dairy

farm northwest of it. The 2nd Battalion of the 4th Bicycle Regiment was to take Krassnyj Oktjabr and then turn northward for an attack on Otrub. The 2nd Battalion of the 98th Mountain Infantry Regiment would be divisional reserve in Swistelnikoff.

The Counter-attack

In spite of the total darkness and the continuing rain, the forces assembled and moved forward to the attack position over the only available route and were ready for action before dawn. Only the artillery had not been able to take up its positions due to the deep mud. The enemy at this time still was holding out stubbornly in the north half of Swistelnikoff.

The main effort of the 42nd Regiment was made by the 2nd Battalion, with the 1st Battalion and regimental staff following echeloned to the left. This provided depth in case of an enemy thrust from the north, and permitted reinforcement of the untried 4th Bicycle Regiment, if necessary.

Delayed in a vain wait for the artillery to get into position, the attack on Schedolgub began around 1100 under indescribably adverse conditions. Long since soaked to the skin by the continuous rain, the companies worked their way forward through cold marshes, often sinking up to their knees or hips.

There was no cover anywhere from the enemy's fire, and digging in was impossible. The enemy was well concealed in the dense marsh grass—which provided the best of cover—or lay, dug in, in the dikes. Often he could not be seen until he opened fire at close range.

The heavy machine-guns found few paying targets, and the shells of the mortars were ineffective in the marsh. Pockets of resistance in the marsh grass, small knolls, and more extensive elevations had to be taken in bitter hand-to-hand fighting. The leading battalion reached Schedolgub around noon and ran into the fanatical resistance of two enemy battalions defending that locality.

The division commander, perceiving the hard and slow advance of the 42nd Infantry Regiment, directed the reserve battalion to push forward to the east of the marsh region toward Kan Farm and by this enveloping movement to threaten the enemy left flank and thus reduce the pressure on the 42nd Regiment. The battalion was able to reach its objective by evening without having made any contact with the enemy.

In the meanwhile the two frontally attacking companies of the 2nd Battalion of the 42nd Regiment

worked their way across the last two marshy stretches on the way to Schedolgub while an artillery preparation was in progress, and broke into the locality. Under this pressure the enemy began to soften and, with the approach of night, pulled back. The darkness rendered his pursuit impossible. Soaked to the skin, covered with mud, and exhausted from fighting, the regiment, gradually arriving in its entirety, bivouacked in the rain.

The attack of the 4th Bicycle Regiment developed less successfully. The 1st Battalion was able to push the enemy out of north Swistelnikoff but was halted before the dairy farm by a stubbornly resisting adversary. The 2nd Battalion, however, had succeeded in driving the enemy out of Korshewski.

Two important results of the day's fighting were that toward noontime enemy withdrawals from the south toward the north were observed, apparently caused by the attack on Schedolgub. Further, it was definitely learned from Russian prisoners that our forces had been dealing with two different enemy groups, thus far separated from one another. After assembling in the Tschernojerkowskaja area, they had arrived in the form of a western column over the ice along the coast of the Sea of Azov and an eastern column through the centre of the lagoon region.

The enemy group in the Schedolgub area and north of it appeared to be more dangerous. It was decided, therefore, to prevent a joining of the two groups, if at all possible, and to reinforce the pressure against the dairy farm northwest of Swistelnikoff in order to isolate the western enemy group. The main body of the combat team would attempt to annihilate the east enemy group and close the gap to the 13th Armoured Division.

The plan necessitated a further splitting up of the forces, but this had to be regarded as inevitable.

The 42nd Infantry Regiment was directed to attack the enemy in Schedolgub at 1000 from the south, while the 2nd Battalion of the 98th Regiment was to swing toward the dairy farm position to the north of Schedolgub in a pincer movement.

The 4th Bicycle Regiment would bar all enemy communications leading to the dairy farm northwest of Swistelnikoff, blocking it off. All anti-tank units were placed under the orders of the regiment in order to pin the enemy down by fire. In this plan, one battalion of the 42nd Infantry Regiment would attempt to make contact with the

2nd Battalion of the 4th Bicycle Regiment approaching from the south.

The day of 1 March brought the first great success. The Soviets began to retreat in ever-increasing haste. In the hard pursuit fighting the fleeing Soviets, whose only way of escape lay across a branch of one of the lagoons, suffered bloody losses. The commander of the 42nd Regiment reported in his notes with regard to this:

In long lines, one behind the other, the Russians waded up to their necks in water toward the northwest. The losses of the Soviets from artillery and machine-gun fire were terrific. Only small groups of the enemy succeeded in crawling into the dense water grass around the lagoon where they hid and continued to fire on our forces from ambush.

The 42nd Infantry Regiment and the 2nd Battalion, 98th Mountain Infantry Regiment, had continued the attack to the north and succeeded in reaching Besrodnowo during the course of the day. Forces from the mountain infantry regiment continued in the direction of Tschernojerkowskaja to establish contact with the 13th Armoured Division to the west.

No great change in the situation was reported from the 4th Bicycle Regiment. Enemy forces were still moving up from the south and assembling in increasing numbers around the dairy farm northwest of Swistelnikoff. The enemy here had made no move to go to the relief of his eastern group.

Early on 2 March a new and hitherto undetected enemy group suddenly appeared in the marsh and rice area north of the Schedolgub dairy farm. With a strength of about 500 to 600 men, they attacked the combat team's advance message centre which had been established there. This force, in thrusting forward to Schrfolgub, could break up the main effort of the combat team, strike the weak 4th Bicycle Regiment in its flank and, perhaps, overrun the artillery. The commander's order to the German forces at the dairy farm was to halt the enemy at any cost.

One company was hurried there as rapidly as possible for reinforcement. At the same time, the order was issued to the 42nd Infantry Regiment to turn immediately in the direction of Schedolgub. This attack also was entirely successful. In a complete surprise, the regiment caught the Soviets from the rear and completely obliterated them. In addition to a large amount of equipment, six cannon, one anti-tank gun, and two heavy mortars were captured. In the marsh around the dairy farm 450 dead were found.

On the evening of this day the first part of the mission assigned by the corps could be regarded as fulfilled. The danger of the enemy penetration into the corps' left flank had been eliminated, the enemy who had pushed forward was forced to retreat, and his east attack groups were annihilated.

The Final Assault

The next and last mission was the destruction of the enemy west group. Since the Russians were strongly organized here with a force of about 1000 men thickly massed in a very narrow area, the annihilating blow was not to be delivered until the 4th of March, and the 3rd was employed for preparation.

The 2nd Battalion of the 42nd Infantry Regiment was to attack from the Schedolgub area, take the dairy farm, and push on through to the fishery.

The 4th Bicycle Regiment was to seize and secure the group of houses south of the dairy farm. The first reinforced company of the bicycle regiment was to remain in Swistelnikoff to intercept the enemy still falling back ahead of the 2nd Battalion and prevent his escape westward.

Information available indicated that the dairy farm was situated in a somewhat elevated area in the midst of the marshy region. It consisted of a number of buildings built of stone. Around it were machine-gun nests, trenches, and anti-tank gun positions which commanded the few narrow approaches.

The attack of the battalion again had to be conducted frontally through the midst of the marsh. The prerequisites for success were first, the establishment of a strong protective fire, and second, the construction of emergency crossings by which the assault companies could cross the marsh rapidly. At the cost of a great deal of effort, the heavy machine-guns and the heavy mortars were moved to a slight rise of ground south-west of Schedolgub during the night of 3-4 March and placed in open firing positions. The marsh was bridged with timbers and planks torn out of houses and huts. Deeper spots in the marsh were filled up with any type of material that could be dragged there. Places knee-deep or less were accepted as merely shallow and so marked.

During the night a shock detachment from each company moved across the marsh and dug itself in on the rising slope toward the dairy farm. The attack was to be led by these assault detachments in order to divert part of the enemy's fire from the companies which would follow them.

The participation of the *Stukas* in the attack was made possible by clearing weather. From 0730 to 0745 on 4 March, planes bombed the entrenched enemy with good effect. Concealed by the smoke of the bombs, the 2nd Battalion of the 42nd Infantry Regiment rushed forward to cross the marsh. Simultaneously with the departure of the last plane, artillery and heavy weapons fire began and continued up to the moment when the leading shock troops broke into the Soviet trenches at 0800. The enemy, completely demoralized by the fire, offered but momentary resistance at a few points only and then began to flee toward the northwest. By 0815 the dairy farm was completely in German hands.

On 6 March a small Russian counter-attack force to the northwest was broken up by artillery fire. Enemy forces still attempting to resist were taken care of by the constantly advancing infantry, until fog, water, and the oncoming night necessitated a halt in the operations. Some portions of the enemy forces succeeded in escaping over the point of land north of the fishery.

For two days the 6th Company of the 42nd Infantry Regiment followed the remnants of the Soviet forces through the lagoon areas. They pushed ahead through breast-deep water, resting and even bivouacking in the water. Not until 6 March did the company, from which no word had been received and which had been given up as lost, again appear south of Tschernojerkowskaja and join the 13th Armoured Division.

The battle of the eastern shores of the Sea of Azov had been fought and won under unheard-of difficulties. In seven days of fighting the combat team had fulfilled its combat mission completely. The threatening danger in the rear of the XLIX Mountain Artillery Corps had been eliminated, the enemy forces which had effected a penetration had been destroyed, and a defence front established on the north.

German casualties were 221 men, 970 dead Russians were counted and, according to prisoners' reports, at least double this number must have drowned. Only 110 prisoners were taken. Of the three Russian brigades, only a fraction was able to escape. All the heavy equipment the Soviets had laboriously dragged through the marshes was left behind, including twelve 76.2-mm. guns, two 45-mm. antitank guns, 14 heavy mortars, and 52 machine-guns.

Lessons Learned

This battle in the marsh is a

masterful example of the fact that no terrain is so impassable that it can be assumed to be a secure barrier to the enemy. Under certain conditions, even in a modern war, the fighting must be done by the infantry alone. Under bad weather and terrain conditions modern technique often has to give way to a seemingly obsolete style of fighting. The decisive element here is the individual fighter—hard, inured to hardship and deprivation, and capable of subsisting in close contact with nature. At the same time, energetic command is mandatory.

The main burden of the fighting was borne exclusively by the infantry which alone was mobile in this terrain. Inventiveness and capacity for improvisation aided in the crossing of particularly impassable stretches of marsh. The rifle was the dominant weapon of the individual fighter. Light machine-guns often could be fired only from the hip. The assault rifle, which had not yet been introduced, would have been the most advantageous weapon.

Hand-grenades proved to be of little effectiveness in the marshy terrain. Their effect often was dissipated by the tall marsh grass. It is to be established as a principle that the infantry should go into combat lightly equipped in order to retain all possible mobility in such terrain. A man with a heavy pack always will be a good target in a marshy area. Continuous food supply can be ensured only by carrier units in conjunction with the forward supply base system.

Delay in operations to permit the artillery—as the sole supporting weapon—to get in position later paid off by its excellent cooperation. Its concentration in the only place suitable for positions—along the road leading into the marshland—constituted a marked risk; clearing weather and a breaking up of the cloud ceiling would likely have meant its destruction by the enemy's aviation. The artillery brought along by the Russians (intended for use after the marshy area had been crossed) showed up in the marshes only a single gun at a time, and then could not lend effective support due to the lack of suitable positions.

Heavy weapons carried into such a fight are of little advantage. They move very slowly and, because of their large ammunition requirements, necessitate additional carrier forces. They find few suitable fire positions, and constitute too conspicuous a target in the open terrain. The flanking fire of individual heavy machine-guns along earth embankments in which the

"30"—A Mystic Symbol

Most Editors and writers (and certainly all those in the newspaper business) are aware that the figure "30" appearing at the end of an article or news dispatch indicates the conclusion of such material. It is used for the information of the Editor and does not appear when the article is printed. In an item published in the Camp Petawawa Post, *Mr. E. Pye of the Canadian Army's Historical Section deals with several possible origins of this mystic symbol.*—Editor.

* * *

One authority, who became a telegrapher in 1872, averred that in a book of instructions the numeral "30" indicated "the end" or "no more tonight" and was used exclusively in announcing the conclusion of the nightly press dispatches. A writer in The Quill (April 1927) claimed the journalistic symbol "30", meaning "the end", was of Asiatic origin: "In India '80' is employed to mean 'farewell', literally 'I quit'. One Mr. Holwell, an English Officer at Fort William, Calcutta, used the figure at the end of a letter which he sent to the East India Company in 1758. The Company facetiously but erroneously, made it '30' ".

At one time, according to another view, news telegraph offices closed at 2.30 a.m., and it became the custom to place "30" on the last dispatch sent out. Another opinion is that a Washington correspondent of the Associated Press had "30" for his number and signed his dispatch with that number instead of his name. Whatever the true origin, the practice became popular for telegraphists to tap out, as finis, "30".

Thus, Public Relations press releases sent out from Army Headquarters, Ottawa, end with "30".

Battle in Mud and Marsh

(*Continued from preceding page*)

enemy may entrench himself for strong defence possibly could be effective.

Part of the effectiveness of the combat team was due to its good signal communications. Telephones, in general, were used to ensure the flawless transmission of orders. Where practicable, dispatch riders were used. On the other hand, the radio equipment often failed to function properly due to the extreme dampness of the area.

ADVENTURE IN NORTH RUSSIA

By

Lieut.-Colonel H. F. Wood, (PPCLI), Army Council Secretariat, Army Headquarters, Ottawa

The platform at King's Cross was a riot of colour on the 19th of September, 1918. There seemed to be soldiers from every Allied nation present in the crowd, from bearded Russians in baggy uniforms with large gold epaulettes to French colonial infantry in *bleu d'horizon*. There were groups of khaki-clad British soldiers together with individual officers and NCOs from countries as far apart as Serbia and Japan.

At one end of the platform, looking rather uncomfortable in this international throng, were the officers and men of the 16th Brigade, Canadian Field Artillery. Though newly organized, they looked smart and fit, for all were veterans of the Western Front. All, too, were volunteers who had been specially chosen to form part of this unusual collection of Allied units.

As they waited for the order to entrain, the Canadians saw a familiar figure approaching them. Moving relentlessly through the press of soldiers was a very large British officer, whose general's forage cap did not entirely conceal the red hair, hearty complexion and strong features which the troops instantly identified as belonging to an old friend. This was Brigadier-General Edmund Ironside, fresh from commanding a brigade in France, whose early association as a staff officer with 4th Canadian Division was well remembered. He was a gunner himself and they gave him a cheer as he approached. He shook hands with several old friends in the ranks, and it made the Canadians feel a little less strange to learn that he was to accompany them on the bizarre adventure for which they had volunteered.

This little army of many nationalities, which was crowded into troop ships next day at Dundee, was to make its own curious kind of history. It was destined for the arctic port of Archangel, and together with an equally cosmopolitan force at Murmansk, was to spend many months fighting Russian Bolshevik armies on their

own ground. Long after the war against the Central Powers had ended, while the rest of the Canadian Expeditionary Force was moving homeward in a steady stream, more than 600 Canadian soldiers continued to fight an enemy with whom they were not at war.

The affair of the Expeditionary Force to North Russia has become clouded with time and misconception. In 1919 when the general public became aware of its existence, there was a great clamour against it. The real aims behind the Bolshevik revolution were not clear in those days, and people in many countries were sympathetic towards Russia's new rulers. There were large and vocal elements in Britain and America who saw in this Allied force the insidious hand of the decadent upper classes, using troops enlisted to fight the Kaiser in an attempt to restore the Russian aristocracy to power.

As a result of this, the Expeditionary Force was pulled out as soon as could be arranged in 1919. Those who attempted to explain the very sound reasons for the Expedition were shouted down in the uproar of debate. The troops were dispersed to their homes, the Commanders were knighted and put on half pay, and by tacit agreement with all concerned, the venture was forgotten. No official history has ever been written about it, and source material is scanty. That the Force fought well, and deserved more credit than it got, is indicated by the fact that the small group of Canadians alone was awarded sixty British decorations to say nothing of nearly 50 Russian medals and other foreign awards.

Major Alfred Eastham, for example, disembarking at Halifax, must have been an impressive figure. An officer of the Canadian Machine Gun Corps who had commanded a column south of Murmansk, he wore the DSO, the MC, and the oak leaf of Mentioned in Despatches. On his breast was the Serbian Order of the White Eagle with swords, 5th Class, the Order of St. Apostolic and Grand Duke Vladimir, 4th Class with swords and bow and the Order of St. Stanislas, 3rd Class. He had been wounded in France in 1916, and although of low category, had volunteered for North Russia. He commanded British, French, Serbian and Russian troops, was highly praised by his Commander in Chief, and was "brought to the Attention of the Secretary of State for War". There were many like him.

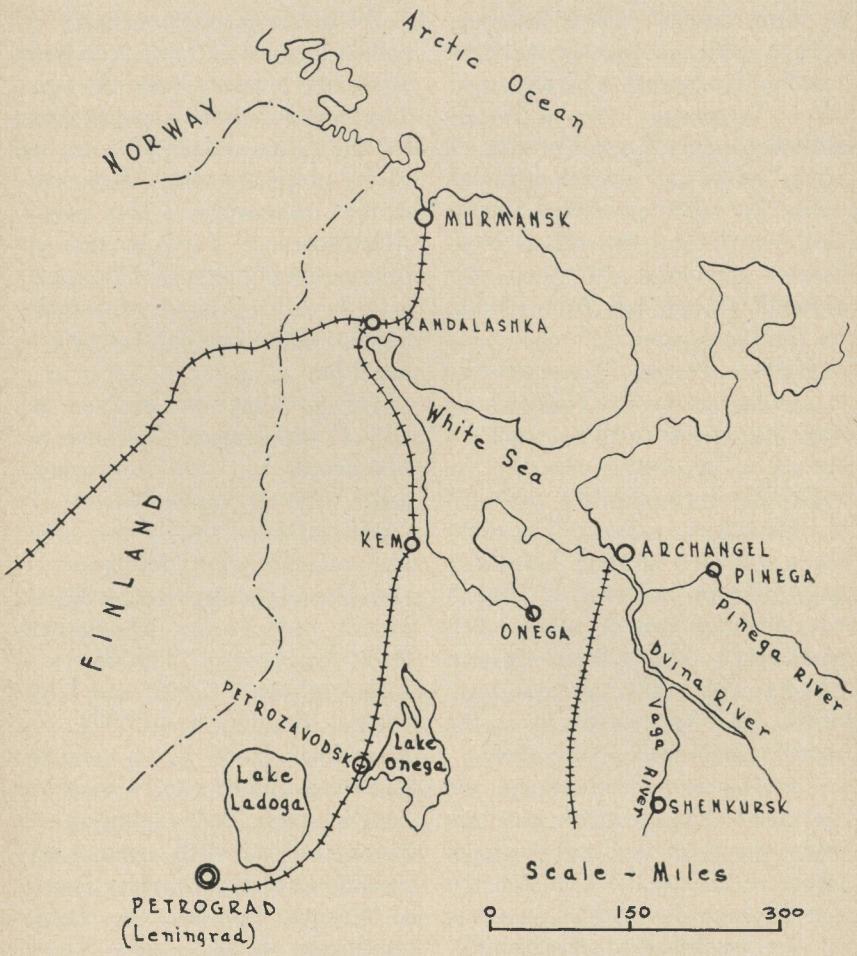
As the troop ships sailed from Dundee in a driving September rain, the future temper of world opinion was fortunately hidden from the Canadian artillerymen. They endured the North Sea and the overcrowding philosophically, noting with pride that they seemed better able to endure the conditions than some of the other nationalities, who suffered extensively from sea sickness, dysentry, and influenza. In organizing his new brigade, Colonel C. H. L. Sharman, CBE, the CO, had laid down some illuminating prerequisites. The men selected from the volunteers were to be "strong, healthy and optimistic". Events were to prove this a wise precaution.

The forces that were convoyed north with the Canadians were not the first of the Allies to land in North Russia. In April 1918, after the treaty of Brest-Litovsk, the Allies landed a few Royal Marines at the ice-free port of Murmansk. There was fear that the German army in Finland would move against this port and capture it for use as a submarine base from which they could outflank the whole Allied convoy system. Later, when the effect of the treaty of Brest-Litovsk was to liberate large numbers of German troops for the Western Front, the Allies, desperately short of men, sought every means to retard the westward flow of German divisions. One way that appeared hopeful was to open another front, using for the purpose Allied troops stranded in Russia by the revolution.

Of these forces, the most impressive was a Czechoslovakian Corps, estimated at 70,000 men. If an expeditionary force could link up with them, and any others like them, the chances of a new eastern front appeared excellent. Accordingly, the Allies reinforced Murmansk with 600 men and sent a handful of Royal Marines to Archangel. The landing at Archangel, on August 2, coincided with a local counter-revolution, which threw out the town's Soviet and installed a provisional government.

The Murmansk force, code-named "Syren", under the command of Major-General C. M. Maynard, was landed towards the end of June. With this group came the first Canadians. They were part of a British "mission" with the unlikely code name of "Elope" which was to proceed to Archangel as soon as ice conditions in the White Sea permitted, and organize and train any local inhabitants who could be persuaded to fight Germans and Bolsheviks.

The original landings were actually sanctioned by the new



NORTH RUSSIA 1918-1919

Russian government, but when the Marines at Murmansk began to form units of White Russians, Lenin and company became hostile. By August it became clear that Archangel was seriously threatened. The Czech Corps failed to put in an appearance, although a Serbian battalion and a French artillery unit got through to Murmansk, having fought their way through all the way from Odessa on the Black Sea

It was decided to reinforce Archangel, and various nations were approached with a request for troops. The result was the reinforcement group which included the Canadian artillery. The other units consisted of three battalions of American infantry, a French contingent, a British infantry brigade, and a cadre of White Russian officers who were to raise local units. The total strength of the reinforcement was about 5000.

The Allies did not expect the German collapse in 1918, and were even afraid of another German offensive. When the Armistice did come it coincided with the freezing of the harbour of Archangel. Whether they liked it or not, the expeditionary force to North Russia was locked in for the winter, for the only link with Murmansk was an overland route over primitive tracks, lying in frozen wastes that only small parties could traverse.

With the Armistice came renewed hostility from the Reds. With this hostility came dilemma. The local populations had declared for the Allies and, in honour, had to be protected until they could protect themselves. The role of Allied forces in North Russia thus became one of holding off Bolshevik attacks with one hand, while building up White Russian forces with the other.

The problems confronting the two Commanders, Maynard at Murmansk and Ironside at Archangel, were complicated by the mixed nature of the forces at their disposal. At Archangel there were the Canadian artillery brigade, armed with twelve 18-pounders, and contingents from Britain, France, Poland, U.S.A. and White Russia totalling about 7000. At Murmansk there were a company of British infantry and a machine-gun company, later increased by two battalions. Add to this a Red Finnish Legion, a Karelian Legion, a Serbian battalion, an Italian contingent of 1200, some French artillery and some 100 officers and NCOs from Canada, and the mixture was complete. The total forces at Murmansk and Archangel, including local Russian units, never exceeded 35,000 men.

In addition to the major units, the force contained small parties of troops whose presence added little to its fighting efficiency. There was a company of Lithuanians, who had been mining coal in Scotland when conscription was introduced. They had been offered the alternative of joining the British Army or proceeding to Russia as a unit and had chosen the latter course.

The only mounted unit of any size in the force was on the Dwina front. This was an ill-disciplined regiment of Caucasian cavalry, commanded by a most dubious character calling himself Prince Erinstoff. He was rumoured to be a nephew of Count Tolstoy and had been cashiered from a Russian Guards cavalry regiment.

Captain Royce Dyer, DCM, MM, one of the Canadian officers of the Mission who had served in France as an NCO in the 8th Battalion ("Little Black Devils") from Winnipeg, was given a Slavo-British Battalion to command. His soldiers were drawn from the least unsavoury elements found in the gaols after the counter-revolution in Archangel. Dyer's adjutant was an Australian, Bourke, and his interpreter an escaped PW from the Austrian Army. Dyer was later to die from pneumonia contracted in 60-below weather, and his successor as CO, Bourke, was murdered along with eight British subalterns and NCOs when the battalion mutinied soon after taking over a sector of the Dwina front.

At every turn there were political complications. The Red Finns would fight only White Finns and had to be kept away from Red Russians. The Karelians were out to form an independent Karelia, and were lukewarm towards any other aim. The Russians intrigued continually among themselves.

There can be no better example of the tasks Britain sometimes sets for her generals than the North Russian campaign. Ridiculously inadequate forces were provided, many of them low category troops. The initial tasks ordered were unrealistic in the light of the known facts and the aim of the expedition was constantly altered as each international crisis arose. To cap it all, little or no money was allowed with which to restore local government, buy materials and pay labour.

When General Maynard raised the question of funds with the War Office, he was offered a large surplus stock of salt herring on the grounds that the Russians were sure to be short of food and would gladly accept this substitute for a money wage!

General Ironside was also without money and when British paper roubles, repayable in London, finally arrived, it was discovered that they had been printed with an old Czarist plate, complete with crowns on the double-headed eagles. One can understand the suspicion that these notes would have created in the minds of peasantry who had thrown off the Imperial yoke and whose hatred was divided between the Czar and Lenin. The crowns had to be obliterated by hand with the aid of a rubber stamp.

The situation in the towns was a source of endless concern. The "Provisional Government" was an inert and lack-lustre organization that had constantly to be prodded into action. Made up of doctrinaire social revolutionaries who awaited with detachment the inevitable collapse of the Bolshevik regime, it refused to face up to the grim realities of its situation.

In Archangel, its main preoccupation was the running of a distillery which turned out unlimited quantities of vodka at a shilling a bottle. Despite Ironside's pleas, he could never get this menace reduced, since it was the "Government's" best source of revenue.

In Murmansk, the population consisted of a polyglot of Koreans, Chinese, Letts, Poles and other foreigners who had been pressed into construction gangs on the railway. Maynard was forced to establish an elaborate Intelligence organization to counter the efforts of Red agents who came and went at will. His foresight paid off when he received early warning of an uprising planned for the anniversary of the Revolution. He prevented the revolt, but was never able to stop the infiltration.

In such a situation, improvisation and flexibility were essential. Neither general had enough trustworthy leaders. Canadian officers and NCOs of the Mission were put to work wherever they could be usefully employed. They commanded Russian, Slavo-British and mixed columns as required.

When the war in France ended, morale in all the forces began to droop. Both in the Archangel sector and the Murmansk area there was incipient or overt mutiny to contend with several times, and only prompt action prevented disaster. The Bolsheviks showed themselves active propagandists from the first. A leaflet on General Ironside, widely circulated at the time, read in part as follows:

"...This General Feltwebel was renowned for his harsh and bullying treatment of the soldiers under him and for his servile attitude to his superiors. The mere sight of

this great hulking, redheaded, overgrown schoolboy makes one want to spit in his face.

"...such a man can be dealt with in only one way. Pin him to the ground with a bayonet– Into the sea with redheaded Feltwebel Ironside.

Naumov, Commissar."

Long before the world was treated to the vitriol of Russian propaganda, the troops in North Russia were being given a taste of it.

It is beyond the scope of this account to record in detail the progress of the campaign. The moves and counter moves at Archangel and Murmansk proceeded independently of each other. The two forces were separated by the White Sea and each had a different aim. At Murmansk, the area had to be cleared of enemy so that local levies could be recruited to take over their own defence.

At Archangel, while recruiting country was also necessary, the main problem was the protection of the "Provisional Government of North Russia" with all the Allied Ministers accredited to it and the maintenance in that area of a base from which the Allies might link up, when opportunity offered, with White Russian forces in East Russia and Siberia.

In such a latitude, the weather dominated all operations. The country was one vast forest, swampy throughout much of the summer and covered with deep snow in the long winter. For many of the troops the intense cold was a new experience and only the Canadians knew how to work and live under such conditions.

There were no roads, only countless forest tracks which did not show on the maps. Throughout the winter, too, the Force had to contend with the demoralizing effect of the perpetual Arctic twilight.

In spite of the difficulties, positions were built on the rivers and railroads hundreds of miles south of the ports, and the enemy was held at bay. Active patrolling prevented the units from degenerating into garrison soldiers, and in the many savage encounters with the Red armies, the Expeditionary Force acquitted itself well.

Gradually, behind the lines, the White Russian forces grew. Their performance, however, when they were tested in the line, was spotty. When their leadership was good, they did well, but there were not enough leaders. The Russian officer was too far removed from his men to be effective. When not engaged in political manoeuvring or intrigue, he would lounge

languidly in his quarters, singing sad songs to the tune of a balalaika. As a class, the Russian officers were resigned to the sudden shifts in fortune that Russian misrule had made common in their lives. When a mutiny broke out among some newly-raised troops, the Chief of Staff to the Governor-General, one General Samarine, resigned his post and was later found to have enlisted as a private in the French Foreign Legion.

The Red propaganda went on continually and was too often successful. The White Russian high command kept themselves busy writing most peculiar Orders of the Day which they made very personal, believing that the Russian soldier paid more attention to them in this form.

The Canadians at Murmansk, commanded by Lieut.-Colonel J. B. Leckie, CMG, DSO, and numbering about 100 (generally termed "The Canadian Syren Force") had been chosen for their knowledge of arctic conditions. They were organized into a "Special Super-Mobile Company" equipped with skis, sleds and arctic gear. They did good work on long-range reconnaissance, and in raids and patrols. In January 1919 General Ironside became pressed for troops and the War Office ordered General Maynard to despatch 2,000 men to his assistance. The route lay across 150 miles of snow and ice along the south shore of the White Sea, with the ever-present possibility of Bolshevik attack. The Canadians in the Murmansk area helped in this operation with advice and supervision. Travelling in small parties on horse-drawn sleds, the force arrived intact within Ironside's command in time to stabilize the Archangel front.

Both campaigns were of necessity tied to the available communications. General Maynard fought his small force with great skill. Using the Murmansk-Petrograd railway as his centre line, he drove 450 miles south until he reached the shores of Lake Onega. The Bolshevik forces were ill-disciplined and ill-trained and small mixed Allied columns cleared all the towns and villages within striking distance of the railway, liberating a total area of 12,000 square miles. Majors Eastham and MacKenzie, Canadian officers, commanded two of these columns. Clearing this area permitted the "Provisional Government" to raise troops with which to hold the area. By the time the force was evacuated, some 7000 Russians were in uniform and holding the line against the Reds.

In the Archangel sector, the fighting followed the rivers as well as the railway. General Ironside, on assuming command, found columns on the Vologda railway and the Dwina river, with flank positions on the Pinega and the Onega. The main column, on the Dwina, eventually reached the Vaga, a tributary, and, supported by the Canadian artillery, captured and garrisoned the town of Shenkursk, some 200 miles south of Archangel. This was the limit of the advance. The Bolsheviks showed a great deal more drive on this front, and eventually forced the retirement of Ironside's outnumbered troops to a covering position near the confluence of the Vaga and the Dwina. Major Arnoldi, commanding the 67th Battery, CFA, received a bar to his DSO in one of these actions. The Canadian gunners had frequently to defend their own gun positions and did so successfully.

The most exciting incident of this sort occurred on Armistice Day, when the "Bolos", as the Reds were nicknamed, appeared in battalion strength behind the gun lines of the 67th Battery. A general attack on the Allied position on the Dwina river was in progress and the drivers and signallers turned out to hold this flank assault. Armed with rifles, they held off the enemy until a gun could be swung round. Firing over open sights at 75 yards, the 18-pounder turned the scale and dispersed the attackers. This action by the 67th Battery was warmly praised by the column commander and the Commander-in-Chief. It was about this time that letters and diaries began to refer to the Canadians as "the backbone of the Expedition" because of their "physical fitness and training".

The conditions under which the troops lived were very primitive. Although there appears to have been no lack of adequate clothing, the diet, consisting in the main of canned meat and biscuit, was monotonous. Village billets were verminous and meagre. There was much sickness in those contingents whose troops were unused to harsh weather.

Colonel Leckie, the senior Canadian officer in the Murmansk area, reporting to the Chief of the General Staff in London, made light of his difficulties, but regretted the non-arrival of dog teams, which could give his troops much-needed mobility. Of his personal problems, he wrote: "Sergeant Major Y—— I sent home as absolutely inefficient. He could not be kept on, and his influence was a bad one. He was fortunate in getting away without

a charge being laid against him in regard to dealing with the native population."

Some clue as to the nature of these dealings may lie in the report that the Canadians were getting 35 roubles for two cigarettes, with the rouble running about 45 to the pound sterling. Volume of sales later reduced this figure to five roubles per package.

Ammunition supply, thanks to an energetic and imaginative staff was usually adequate, although stockpiling in the gun areas, risky under such conditions, had to be resorted to before the swampy conditions of autumn and spring set in. The guns, drawn by small shaggy Russian horses, were a motley collection. On the Vaga front for example, the artillery column consisted of four 18-pounders, one naval 12-pounder, three Russian 3-inch howitzers, one 6-pounder anti-aircraft gun, and four "pom poms". In the northern part of the Murmansk sector reindeer were used extensively for transport purposes during the winter, and some 2000 Lapps were enrolled as drivers.

The mixing of nationalities at the theatre level was reflected in the composition of the columns operating on the rivers and railways. The attack on the Segaisha Bridge in February, 1919, was made by three parties of very mixed troops. Major MacKenzie commanded 15 Canadian NCOs, 25 British machine-gunners, 50 Russians and 50 French *skieurs*. Major Eastham had 15 Canadian NCOs and 50 Serbians. Major Drake-Brockman, Royal Marines, had to be content with 75 Karelians and three British Lewis gunners.

Shortly after this battle, which was a complete success, the long-awaited dog teams arrived. The animals were shepherded by a Captain Thomas P. O'Kelly, who submitted a rather Irish report on the expedition after his return to Canada. Commenting on the crowded hospitals, and the incidence of VD, he wrote,—"A man of weak character goes to pieces anywhere, he may go a little faster away from home. But that should not be counted against the country he is in... There is a preponderance (in North Russia) of the lower class who are rather filthy and stupid, their women do much heavy work and have the same heavy figures of our northern Indians, whom they resemble." Captain O'Kelly dismissed the local levies as undependable, noted that of the remainder, half were in non-combatant jobs, and expressed the opinion that the Canadians were being misemployed.

Meanwhile, recruiting of White Russians continued. By March there were 12,000 under arms in the Archangel sector. In April came the first warning of what was to come.

At Tulgas on the Dwina, the Russian garrison mutinied, murdered their officers and went over to the Reds. The town was later recaptured by a steadier Russian force, with Canadian artillery support, but conviction grew that the ceaseless Red propaganda was having its effect.

Despite the feeling that the White Russian levies were unreliable, plans went forward for the evacuation. Nations with contingents in the force were pressing for the repatriation of their troops, and as spring advanced, and the ice in the harbours of the White Sea melted, the evacuation got under way. The Americans were followed by the French and the Royal Marines.

In June, after repeated representations from Canada, the Canadians of the North Russian Expeditionary Force were pulled out from Archangel and at the end of August from Murmansk. Records are not complete on the various small parties of arctic experts and specialist instructors, but there is an account of the last days of the 16th Brigade, Canadian Field Artillery.

Colonel Sharman received the CMG and seven artillery officers received the MC. Other ranks received over 50 British decorations. The Government of North Russia presented every officer with a suitable military decoration, mostly the Order of St. Anne or the Order of St. Stanislaus, and handed over St. George crosses and medals to be awarded to the twenty bravest soldiers who, in the Russian tradition, were to be selected by the men themselves! Major Arnoldi, looking back on the experience, had a special word to say about the men of the Brigade:

"Many times in France", he wrote, "I had discussed what a corker of an outfit one could make if one had the choice of men from the whole Corps. Well, I had them. Men from every unit... including the cream of the School of Gunnery. The men were even beyond my expectation, and never during our eight months' existence on the front were there any signs of discontent among them. Always game for a fight or a laugh and it was generally both."

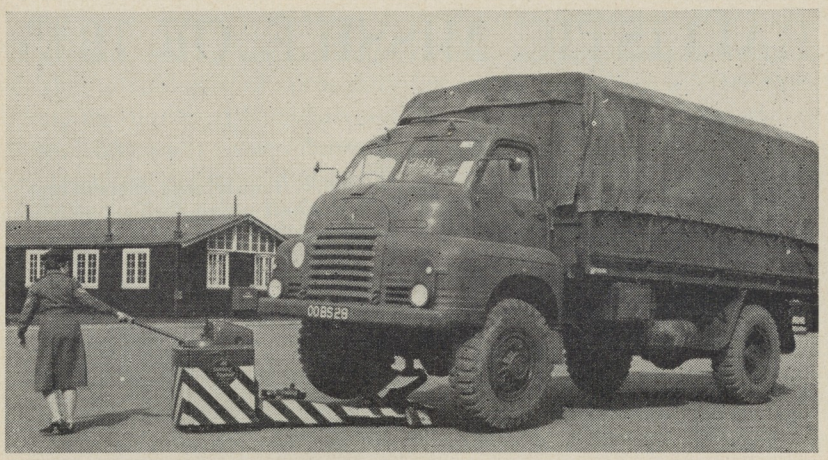
On the 11th of June, 1919, after a hearty farewell from Ironside, the Brigade embarked and arrived at Leith, in Scotland, on the 18th.

The troops were given ten days' leave and then embarked for Canada. One can only guess at the tales told by these Arctic veterans in English pubs and Canadian homes as they re-lived their eight unusual months. One thing is certain—they did not lack material.

The balance of the Expeditionary Force was evacuated in September, protected by a covering force of White Russians. On February 19, 1920, the front collapsed and the Bolsheviks mopped up and consolidated North Russia with their customary savagery. The Governor General, de Miller, escaped with nearly 1000 officers and government officials on the Canadian ice-breaker "Mikula" which had been lent to the North Russian Government earlier in the campaign; but his deputy at Murmansk was captured, loaded in chains and forced to work as a coolie on the docks. When he attempted suicide he was shot by a firing squad.

The commander of the White Russian field forces at Archangel, Colonel Dilaktorsky, was thrown living into the furnace of a tug.

The Canadians of the North Russian expedition were not the only soldiers from this country sent on strange assignments. Many detachments both large and small were sent off on special missions towards the end of the First World War. Nearly four thousand were sent to Siberia to assist the Czechoslovakian Corps, which had worked its way east instead of north. When the Canadian brigade group (which included a Royal North-West Mounted Police squadron) arrived at Vladivostock, some one else had rescued the Czechs, so they came home. Instructional cadres were sent to the U.S.A. to train Americans, to Mesopotamia to train native levies, and Canadian railway troops were sent to Palestine to build bridges. Of them all, the detachments sent to North Russia alone saw much action. Isolated by a barrier of Arctic ice, surrounded by a wilderness full of savage revolutionaries, they fought for a lost cause in which they had no interest and little sympathy. While the rest of Canada celebrated the conclusion of the war to end wars, the Canadians of the North Russian Expeditionary Force were proving that the rejoicing was premature.



United Kingdom Information Service Photograph

An electric jack moves a three-ton lorry.

ELECTRIC JACK PULLS LOADS FOR THE ARMY

FROM A REPORT ISSUED BY THE UNITED KINGDOM INFORMATION SERVICE

The accompanying photograph shows a corporal of the Women's Royal Army Corps guiding with one hand a three-ton lorry on the barrack square at Feltham, Middlesex. The lorry is rising on an electrically-driven jack on wheels and the machine is doing all the work. The corporal only has to press a button and the lorry follows her wherever she goes.

The electric jack, which can pull loads of up to ten tons, enables vehicles to be parked closer together than they can normally be driven. It is one of the many new labour-saving devices which are being introduced into the British Army at depots and stores. This equipment is at present in use at No. 2 Vehicle Group of the Royal Army Ordnance Corps at Feltham.

Other new devices being tested to save labour, time and space include an electrically-driven steam jet cleaner for cleaning vehicles, a new type of servicing trailer for maintenance crews, electric and pneumatic power tools and electrically-operated fork-lift trucks and pallet transporters.

BALLISTIC MISSILE OF 1845

By

ROBERT L. EICHBERG*

More than a hundred years ago a young Navy Lieutenant devised an ingenious method of detonating a mortar shell using trailing wires and a galvanic battery, but lack of finances forced its abandonment.

Electrically detonated ammunition is modern. So are ballistic missiles. So is the controllable air burst. But President James K. Polk, who died more than a hundred years ago, knew about them if he ever received a letter dated May 10, 1846, from Lieutenant Henry Moor, United States Navy.

Lieutenant Moor's letter was marked "Confidential", but somehow a copy came into the hands of the editor of *Mechanics Magazine* of London, which published it in November 1846 with an editorial comment ending, "As we happen, however, to owe no allegiance to Mr. President Polk, we do not hesitate to make it public, for the benefit of our own and of all nations."

The letter is of considerable interest to those now engaged in ordnance work, especially electronic ordnance.

Since the speed of mortar shells, as timed by Lieutenant Moor more than 110 years ago, was only a little more than 100 feet a second, it was possible for a man with 0.25-second reaction time to control a manually functioned air burst within about 30 feet. Using a 1,500-foot pair of wires, a battery, a switch, and an electric detonator, Lieutenant Moor conducted several tests at Governors Island and Sandy Hook. He claimed to have scored five successful functions out of five launchings.

His determination to carry on the work in which he believed, despite apparent lack of interest on the part of the Government, makes his achievement most noteworthy. He wrote:

"In reply to my letter of the 21st of August... it was stated that the Government could not afford the slightest assistance in carrying on my experiments. Feeling perfectly confident, however, that the success of my undertaking would give us a decided superiority in military and naval affairs, I determined to pursue it as far as my resources would permit."

Reprinted by courtesy of the magazine "Ordnance" (U.S.)—Editor.

But even more interesting is Lieutenant Moor's early concept of the advantages of proximity burst, air burst, and underwater burst, electrically controllable to occur when maximum damage might be inflicted upon the target, as compared with the conventional contact burst or fuze-timed burst of that period. Several selected extracts from his letter reveal his thinking. Lieutenant Moor's letter begins:

"Sir, I have the honor to inform you that in the month of May last, the happy idea occurred to me that a shell could be exploded during its flight by electricity, if it were fired with small wires attached to it of considerably greater length than the distance to which the shell was to be thrown; and thus the inner ends would not be disturbed by the motion of the shell, but would be free to be taken to a galvanic battery at any moment during its flight.

"I immediately saw that this application of electricity would be of more importance in military affairs than anything that had taken place since the invention of gunpowder, and commenced a correspondence with the Government..."

The letter then refers to the fruitless correspondence which culminated with the Government's refusal of assistance. The experiments were pursued, however, and mention is made of a letter report describing results of a test conducted at Governors Island on December 31, 1845—a letter which apparently went unanswered.

Lieutenant Moor next describes experiments made at Sandy Hook on April 11, 1846, with a 5 2/3-inch mortar launching a 24-pound shot with a 1-ounce charge of powder.

"Two conducting wires of 1,500 feet each were made fast to the ring bolt on the shot, and being laid so as to run freely, a metallic communication was maintained between the shot and the point from which it was fired during the whole flight of the shot... A small cartridge was secured to the shot, and with this cartridge, the outer end of the wires communicated.

"This cartridge, containing a small explosive composition, on which electricity would act with perfect instantaneousness, would, in the case of a shell, have been placed inside of the powder of the shell, but having no shells to experiment with, it was secured in the above manner to the outside of the shot, and when placed in the mortar, laid on the forward part of the shot next to the muzzle.

"The first shot that was fired fell at the distance of 674 feet, and just previous to its fall, when it

had reached about 500 feet from the mortar, the inner ends of the wires were brought to the battery, and at that very instant the cartridge on the shot exploded. The flash and smoke of the cartridge were distinctly visible, and after the shot fell, it was examined, and the contents of the cartridge found to be entirely consumed."

Four more shots were fired with equal results before the insulation on the wire became defective, and the series was discontinued. One additional shot was launched with a 2-ounce charge. It travelled 1,050 feet, carrying the control wire, which was still unbroken. The wire used by Lieutenant Moor was No. 26 copper, each conductor insulated, and a wrap around the pair; it weighed 4 pounds.

He adds, rather pathetically: "From some experiments I have made, I am inclined to think that very fine steel wire, as high as No. 36 or 40, and not weighing more than an ounce to the hundred feet, would answer equally well, but I am prevented from using it by the expense."

The lieutenant devised an ingenious switch for his experiments.

"The perfect instantaneousness with which the explosion is effected is a matter of the highest importance, and this part of the experiment is the most satisfactory of all. I have succeeded in making the connection between the battery and the conducting wire through a percussion pistol, so that snapping the lock will bring the wire in communication with the battery. Now, a person one hundred feet from the spot, watching the flight of the shot, will observe the explosion of the cartridge before he hears the report of the pistol. This difference of time is so small that it can hardly be measured by any other means; it does not, in fact, exceed the tenth of a second.

"Another consideration of equal importance is the fact that the electric shell is projected with so moderate a velocity, that it is not lost sight of, but can be distinctly traced by the eye from the moment of its leaving the gun to the end of its flight."

Lieutenant Moor next tells of the advantages of air burst:

"The French, at the siege of Antwerp a few years ago, made use of a 24-inch shell carrying 150 pounds of powder. But this, like almost all other shells, was thrown away for want of some power to control it after it was discharged from the mortar. Had it been subjected to the command of electricity, it would, in its passage over a fortification, have entirely dismantled it, or swept down whole

ranks in its passage over any force opposed to it; or if on the water, it would have destroyed an enemy's ship, set fire to the shipping in a harbour, and annihilated everything that was perishable at any point of its passage."

Not only air-burst but proximity-fuze action, too, was envisioned by Lieutenant Moor, who wrote:

"I wish particularly to call attention to the fact that it is not necessary for the electric shell, like other shot and shells, to strike the object in order to produce its effects; it is only necessary to pass over it or near it when the explosion is to be effected, and the enormous volume and intensity of the flame will destroy and set fire to everything in its vicinity... The explosion near the deck of a ship would instantly disable her and set her in a blaze; she could not without similar weapons, and defences altogether different from any at present in use, maintain the contest for a moment."

The lieutenant then analyzes targets and makes some comparisons between his electric shell and the "torpedo"—the name then given to a moored under-water mine.

"I cannot too strongly insist on the fact that against the action of the electric shell there is no protection for those attacked. The ship has no bulwarks to prevent the effects of the explosion as it passes over her decks, and all fortifications are built with reference to the lateral attack only, while overhead a much greater space is left without the slightest protection.

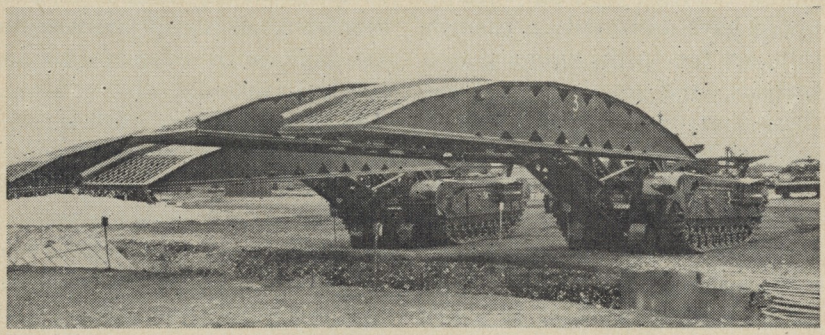
"The explosion of shells over this great extent of exposure would immediately make any fortress untenable. This advantage is so great that it will give the nation which first make (*sic*) use of electric shells entire supremacy both on land and water, as all defences, as at present constructed, would be laid open to its attacks.

"The torpedo has excited much attention in this country, and is no doubt very efficient in case the enemy comes directly over the spot where it is placed. But here we have the torpedo armed to fly over the deck of a ship, to attack the enemy on their own coast, destroy the shipping in their harbours, ascend their rivers and penetrate into the heart of their country, or to repel like attacks abroad."

Even a hundred and ten years ago the economic factor was of prime importance, for Lieutenant Moor continues:

"Our military and naval forces will have a superiority over all others, which by the present armament could not be secured without the expenditure of hundreds of

BRIDGING THE GAP FOR TANKS



United Kingdom Information Service Photograph

The British School of Military Engineering recently demonstrated the current techniques for the main engineer battle tasks. Here two tracked vehicles are seen lowering steel bridge sections over a gap for the passage of tanks. Bridging and rafting, earth-moving and entrenching are the Engineer services likely to be most in demand on an atomic battlefield. It was in these services, therefore, that the Royal Engineers demonstrated what they could do. Heavy (80-ton) and light (30-ton) floating bridges were shown, together with a heavy girder bridge weighing 155 tons which would take a Conqueror tank on its transporter.

Ballistic Missile of 1845

(*Continued from preceding page*)

millions. Any harbour, however strong its defences, would immediately be compelled to submit to terms.

"Our smallest merchant ships could easily carry a 12-inch mortar, which would be sufficient to destroy the largest ships afloat. As this consideration is of much importance at the present time, it will be well to state that this mortar, with 50 loaded shells, and the necessary fixtures, would not exceed an expense of $1,000, and as they could be cast in a very short time, our merchant ships could traverse the ocean with safety."

I do not know whether Lieutenant Moor was ever granted sufficient funds to buy his 3000 feet of steel wire, but, at all events, a belated salute to farsighted Lieut. Henry Moor, U.S.N., who may be the father of electrically detonated ammunition.

ATOMIC WAR AND PARTISANS

TRANSLATED AND DIGESTED BY THE *Military Review* FROM AN "ARTICLE BY A FORMER SOVIET-RUSSIAN OFFICER" IN "DEUTSCHE SOLDATEN-ZEITUNG" (GERMANY) NOVEMBER 1956.*

The atomic weapons and their possible employment have given rise to a regrouping of military forces and an adaptative change in equipment, organization, and tactics of army units throughout the entire world. In many quarters the idea has arisen that the former organization of an army is obsolete, if not altogether unusable. The effort is being made—at least in responsible and professionally schooled circles—to achieve a discreet balance between atomic possibilities and military realities.

Korea, Indochina, Suez, and the abortive uprisings in some of the Soviet satellites have proved very well that there will be situations today, and certainly tomorrow, in which no application will be found for the atom bomb.

On top of this fact, partisan warfare has come more and more to the forefront. It can be maintained with certainty today that in a military clash of major proportions, partisan action would play a far greater role than it did in World War II.

Germany had her adherents in the European countries against whom she fought in World War II. At the same time that German emigrants were supporting the cause of the Allies, the Norwegians, Danes, Dutch, Walloons, Flemings, Ukrainians, Caucasians, Cossacks, Estonians, Latvians and Lithuanians, and even Swedes and Swiss hastened to the German colours. Even some French fought in the German Army although, at the same time, French in the ranks of the *maquis* carried on a bitter war against Germany.

It must be assumed, therefore, that in the event of the outbreak of a new world conflict, strong partisan movements will occur on both sides and that at least the East has long since recognized this possibility and prepared itself accordingly.

Certain elements of the population for various reasons very quickly will join these partisans on both sides. When the American troops landed in France in June 1944, the number of the certified members of the French resistance movement was hardly more than a few thou-

**Reprinted from the June 1957 issue of the* Military Review *(U.S.)*—Editor.

sand. As P. Taittinger relates in his book, *Et Paris Ne Fut Pas Detruit*, this number, which had risen to 100,000 two weeks later, exceeded all expectations.

The Chinese also are masters of partisan warfare. Mao Tse-tung says in his book, *The Strategy of Partisan Warfare:*

Without centralized strategic command, the partisans can inflict little damage on their adversaries, as without this, they soon break down into roaming, armed bands, and then, also find no more support by the population.

The well-known Soviet partisan chiefs, Kovpak and Federov, came to exactly the same conclusion. They state in their memoirs, furthermore, that one of the most important conditions for the success of partisan combat is regular and timely supply of arms, ammunition, and medical supplies.

It is absolutely grotesque that partisan tactics, which are among the oldest methods of combat on earth, should develop into one of the most dangerous instruments of warfare only as a result of the development of technique. Formerly the small, dispersed, and wholly independently operating partisan units were completely isolated and very easily became prey to discouragement. Only with the development of aviation and the radio communications by which the command headquarters could remain in constant contact with even the smallest partisan group was the psychological danger averted and the combat morale of the partisans raised. At the same time, the engagement of the small groups was harmoniously fitted into the operation thus creating new, and heretofore non-existent, possibilities for the harassment or annihilation of the adversary.

In World War II partisan activity at times and in a few sectors shifted the centre of gravity of the fighting from the main line of defence into the hinterland. Croatia and Serbia, the operational areas of the partisan leader, Tito, who was as daring as he was successful, are proof of this.

The value of these units on the Eastern Front also may be measured on the basis of the increasing supply by air of the Soviet partisan units. While in January 1944, in the central sector, the Soviet planes carried out 217 flights back of the German front for the partisans, this figure rose to 917 in March, and in May to 922 flights.

One of the successful tactics in partisan operations is their continual change of position. Mao Tse-tung declares that the partisan units must change their position automatically, since only in this

way can they mislead and surprise the enemy.

It is self-evident that with such tactics the employment of artillery and tanks is impracticable. Aside from the fact that partisans usually operate in trackless terrain, it is in the nature of partisan action not to concentrate but always to operate in small banks.

From this it is apparent that if the military technique of World War II was unsuccessful against the partisans, the employment of the most modern military technique also would be entirely useless. The fact that the present-day nuclear bombs would destroy great areas does not justify the employment of this excessively costly weapon against dispersed partisan forces. No government is in the position to squander so much capital, and the success obtained would be most problematical.

In the modern partisan warfare in Korea, Indochina, and Algeria, even the employment of modern aviation with napalm bombs has not played an important role. The British colonial officer, Captain R. E. R. Robinson, confirms this in his book, *Reflections of a Company Commander in Malaya*, when he reiterates: "The employment of atom bombs against partisans may as well be forgotten!"

There is no way to protect one's own operations from the threat posed by partisans, other than by the employment of partisan tactics. The German High Command finally arrived at this conclusion on the basis of a great deal of experience in the combat of partisans. Only when the Germans abandoned their oppressive tactics against the people on the Eastern Front and recruited volunteer aid from the eastern populations were they able to eliminate the partisan menace. It is interesting to note here that the German troop command, notwithstanding orders to the contrary from higher up, seized the initiative as the result of its own experiences.

As early as 1941 there were tens of thousands of Russian deserters and volunteers, especially from the Ukraine, in the German Army. Because of their precise knowledge of the terrain and the population, these deserters helped in the elimination of the menace in the rear.

By the fall of 1942 more than 47,000 former Soviet prisoners and inhabitants were watching over the rear area of the Eighteenth German Army which lay before Leningrad. Out of these first anti-partisan detachments was formed an army, under General Wlassow, of over a million men made up of the most varied peoples of the Soviet Union.

It was not the fault of this volunteer army that it did not achieve full effectiveness. The mistakes of the German Command during the winter of 1941 and the oppressive practices of the German civil administration combined to assist the Bolshevist partisans.

In spite of this, however, the Germans succeeded, with the help of partisan detachments, in cleaning the Russian partisans out of large areas and in securing supplies of food, ammunition, and men. In order to beat the partisans by their own methods, in August 1942 the command of the Northern Army Group issued an order for the organization of pursuit commandos, an example which was very quickly followed in other sectors. The pursuit commandos were small units made up of selected Germans and native inhabitants of the area in question. They were specially trained for partisan combat and learned the methods of cunning and surprise exactly as did their adversaries. Their armament was light weapons. In the winter they travelled on skis as well as in horse-drawn sleighs.

In May 1944 the Germans issued very precise instructions to all arms of the service on how the fight against partisans was to be conducted.

These instructions stated that troops who fight against partisans should be armed only with such weapons as they themselves can carry (machine pistols, light machine-guns, mortars); the need of the employment of cavalry and the use of aviation for reconnaissance also was stressed.

The Germans had learned with the passage of time.

Partisans are best able to operate in wooded, expansive terrains, in jungles, and tundras. A region that is not open from the standpoint of vehicular traffic presents a good condition for effective action on their part. Since west European terrain is comparatively open, the Germans lacked the experience for rightly evaluating the partisan action. Here the Russian had a lead from the very start. Indeed, the activity of the anti-German partisans in France, Holland, and Italy showed that terrain plays a very important, but by no means decisive, role in partisan activities.

The Germans found themselves in about the same situation as the United Nations troops years later in Korea. They had permitted an important factor to escape them. They had not considered it, hence had issued no instructions.

It was plain to be seen that in areas that had been occupied at

(*Continued on page 139*)

BATTLE HONOURS AWARDED

Supplements to Canadian Army Orders issued at Army Headquarters, Ottawa, contain lists of Battle Honours awarded to the under-mentioned regiments by Command of Her Majesty the Queen. The Battle Honours which have been selected to be borne on Colours or Appointments are printed in heavy type. Further lists will be published as they are promulgated. Those listed below appear in the order of date of promulgation.—Editor.

* * *

THE BRITISH COLUMBIA REGIMENT
(DUKE OF CONNAUGHT'S OWN)
(13TH ARMOURED REGIMENT)
The Second World War

"Falaise", "Falaise Road", "The Laison", **"Chambois"**, "The Scheldt", **"The Lower Maas"**, **"The Rhineland"**, **"The Hochwald"**, **"Veen"**, **"Twente Canal"**, **"Kusten Canal"**, **"Bad Zwischenahn"**, **"North-West Europe, 1944-1945"**.

LES FUSILIERS DE SHERBROOKE
The Second World War

"Normandy Landing", **"Authie"**, **"Caen"**, "The Orne", **"Bourguébus Ridge"**, "Faubourg de Vaucelles", "St. André-sur-Orne", **"Falaise"**, "Falaise Road", "Clair Tizon", "The Laison", "Antwerp-Turnhout Canal", **"The Scheldt"**, "The Lower Maas", **"The Rhineland"**, "The Hochwald", **"Xanten"**, **"The Rhine"**, Emmerich-Hoch Elten", **"Zutphen"**, "Deventer", "North-West Europe, 1944-1945".

1ST HUSSARS
(6TH ARMOURED REGIMENT)
The Second World War

"Normandy Landing", "Putot-en-Bessin", **"Le Mesnil-Patry"**, **"Caen"**, "The Orne", "Bourguébus Ridge", **"Faubourg de Vaucelles"**, **"Verrières Ridge — Tilly-la-Campagne"**, **"Falaise"**, "Falaise Road", "Quesnay Wood", "The Laison", "Chambois", **"Calais, 1944"**, **"The Lower Maas"**, **"The Rhineland"**, "The Hochwald", **"Apeldoorn"**, "Bad Zwischenahn", "North-West Europe, 1944-1945".

THE
TORONTO SCOTTISH REGIMENT
The Second World War

"Dieppe", **"Bourguébus Ridge"**, **"St. André-sur-Orne"**, "Verrières Ridge — Tilly-la-Campagne, **"Falaise"**, "Falaise Road", "Clair Tizon", "Dunkirk, 1944", **"Antwerp-Turnhout Canal"**, **"The Scheldt"**, **"Woensdrecht"**, "South Beve-

land", **"The Rhineland"**, **"The Reichswald"**, "Goch-Calcar Road", **"The Hochwald"**, "Xanten", "Twente Canal", "Groningen", "Oldenburg", "North-West Europe, 1944-1945".

THE PRINCESS LOUISE FUSILIERS (MG)
The Second World War

"Liri Valley", "Melfa Crossing", **"Gothic Line"**, **"Coriano"**, **"Lamone Crossing"**, **"Misano Ridge"**, **"Italy, 1944-1945"**, **"Delfzijl Pocket"**, **"North-West Europe, 1945".**

THE HIGHLAND LIGHT INFANTRY OF CANADA
The Second World War

"Normandy Landing", **"Caen"**, **"The Orne (Buron)"**, **"Bourguébus Ridge"**, "Faubourg de Vaucelles", **"Falaise"**, **"The Laison"**, "Chambois", **"Boulogne, 1944"**, "Calais, 1944", **"The Scheldt"**, "Savojaards Plaat", "Breskens Pocket", **"The Rhineland"**, "Waal Flats", "The Hochwald", **"The Rhine"**, "Zutphen", "Leer", "North-West Europe, 1944-1945".

THE ROYAL WINNIPEG RIFLES
The Second World War

"Normandy Landing", **"Putot-en-Bessin"**, "Caen", **"Carpiquet"**, "The Orne", "Bourguébus Ridge", **"Falaise"**, "The Laison", "The Seine", **"Calais, 1944"**, **"The Scheldt"**, **"Leopold Canal"**, "Breskens Pocket", "The Rhineland", "Waal Flats", **"Moyland Wood"**, **"The Rhine"**, "Emmerich-Hoch Elten", "Deventer", **"North-West Europe, 1944-1945".**

PRINCESS PATRICIA'S CANADIAN LIGHT INFANTRY
The Second World War

"Landing in Sicily", **"Leonforte"**, "Agira", "Sicily, 1943", **"The Moro"**, **"The Gully"**, "Liri Valley", **"Hitler Line"**, **"Gothic Line"**, **"Rimini Line"**, **"San Fortunato"**, "Savio Bridgehead", "Naviglio Canal", **"Fosso Munio"**, "Granarolo", "Italy, 1943-1945", "Apeldoorn", **"North-West Europe, 1945".**

THE BLACK WATCH (ROYAL HIGHLAND REGIMENT) OF CANADA
The Second World War

"Bourguébus Ridge", **"Faubourg de Vaucelles"**, **"Verrières Ridge—Tilly-la-Campagne"**, "Falaise", "Clair Tizon", **"Forêt de la Londe"**, "Dunkirk, 1944", "Antwerp-Turnhout Canal", **"The Scheldt"**, "Woensdrecht",

"South Beveland", **"Walcheren Causeway"**, **"The Rhineland"**, **"The Hochwald"**, "Xanten", "The Rhine", "Groningen", **"Oldenburg"**, **"North-West Europe, 1944-1945"**.

WEST NOVA SCOTIA REGIMENT
(MACHINE GUN)
The Second World War

"Landing in Sicily", "Valguarnera", "Adrano", **"Catenanuova"**, "Centuripe", "Sicily, 1943", "Landing at Reggio", **"Potenza"**, "Gambatesa", **"The Sangro"**, "Castel di Sangro", **"The Gully"**, "Cassino II", "Gustav Line", "Liri Valley", **"Hitler Line"**, "Melfa Crossing", **"Gothic Line"**, **"Lamone Crossing"**, **"Rimini Line"**, "San Martino-San Lorenzo", "San Fortunato", "Savio Bridgehead", "Italy, 1943-1945", "Apeldoorn", **"North-West Europe, 1945"**.

THE REGINA RIFLE REGIMENT
The Second World War

"Normandy Landing", **"Bretteville-l'Orgueilleuse"**, **"Caen"**, **"The Orne"**, "Bourguébus Ridge", "Faubourg de Vaucelles", **"Falaise"**, "The Laison", "The Seine, 1944", **"Calais, 1944"**, **"The Scheldt"**, **"Leopold Canal"**, "Breskens Pocket", "The Rhineland", "Waal Flats", **"Moyland Wood"**, "The Rhine", **"Emmerich-Hoch Elten"**, "Deventer", "North-West Europe, 1944-1945".

THE ROYAL CANADIAN DRAGOONS
(1ST ARMOURED REGIMENT)
The Second World War

"Liri Valley", **"Gothic Line"**, **"Lamone Crossing"**, "Misano Ridge", "Sant' Angelo in Salute", "Fosso Vecchio", **"Italy, 1944-1945"**, **"Groningen"**, "Bad Zwischenahn", **"North-West Europe, 1945"**.

1/8TH CANADIAN HUSSARS
(PRINCESS LOUISE'S)
2/8TH CANADIAN HUSSARS
(PRINCESS LOUISE'S)
The Second World War

"Liri Valley", **"Melfa Crossing"**, "Ceprano", **"Gothic Line"**, **"Montecchio"**, "Tomba di Pesara", **"Coriano"**, **"Lamone Crossing"**, "Misano Ridge", "Conventello—Comacchio", **"Italy, 1944-1945"**, **"Ijsselmeer"**, **"Delfzijl Pocket"**, "North-West Europe, 1945".

THE ROYAL RIFLES OF CANADA
The Second World War

"Hong Kong", **"South-East Asia, 1941"**.

THE QUEEN'S OWN CAMERON HIGHLANDERS OF CANADA (MOTOR)
The Second World War

"Dieppe", "Bourguébus Ridge", **"St André-sur-Orne"**, **"Verrières Ridge—Tilly-la-Campagne"**, **"Falaise"**, "Falaise Road", **"The Laison"**, **"Forêt de la Londe"**, **"Dunkirk, 1944"**, "The Scheldt", **"Woensdrecht"**, "South Beveland", **"The Rhineland"**, **"The Hochwald"**, **"Xanten"**, "The Rhine", "Groningen", "Oldenburg", "North-West Europe, 1942, 1944-1945".

THE WESTMINSTER REGIMENT
The Second World War

"Liri Valley", **"Melfa Crossing"**, **"Gothic Line"**, **"Coriano"**, **"Lamone Crossing"**, **"Misano Ridge"**, "Casale", **"Naviglio Canal"**, **"Italy, 1944-1945"**, **"Ijsselmeer"**, **"Delfzijl Pocket"**, "North-West Europe, 1945".

1ST CANADIAN SPECIAL SERVICE BATTALION (*Disbanded*)
The Second World War

"Monte Camino", **"Monte La Difensa—Monte La Remetanea"**, **"Monte Majo"**, **"Anzio"**, **"Rome"**, **"Advance to the Tiber"**, **"Italy, 1943-1944"**, **"Southern France"**, **"North-West Europe, 1944"**.

THE GOVERNOR GENERAL'S FOOT GUARDS
(5TH CANADIAN GUARDS)
The Second World War

"Falaise", "Falaise Road", **"The Laison"**, **"Chambois"**, **"The Scheldt"**, **"The Lower Maas"**, **"The Rhineland"**, **"The Hochwald"**, **"Veen"**, **"Bad Zwischenahn"**, **"North-West Europe, 1944-1945"**.

THE ROYAL REGIMENT OF CANADA
The Second World War

"Dieppe", "Bourguébus Ridge", **"Faubourg de Vaucelles"**, **"Verrières Ridge—Tilly-la-Campagne"**, **"Falaise"**, "Falaise Road", "Clair Tizon", "Forêt de la Londe", "Dunkirk, 1944", **"The Scheldt"**, "Woensdrecht", **"South Beveland"**, **"The Rhineland"**, "Goch-Calcar Road", **"The Hochwald"**, **"Xanten"**, **"Twente Canal"**, "Groningen", "Oldenburg", "North-West Europe, 1942, 1944-1945".

THE CAMERON HIGHLANDERS OF OTTAWA (MG)
The Second World War

"Normandy Landing", **"Caen"**, **"Carpiquet"**, "The Orne", **"Bourguébus Ridge"**, "Faubourg de Vaucelles", **"Falaise"**, "Quesnay Wood", "The

Laison", **"Boulogne, 1944"**, **"The Scheldt"**, "Breskens Pocket", "The Rhineland", "Waal Flats", **"The Hochwald"**, **"The Rhine"**, Zutphen", "Deventer", "Leer", **"North-West Europe, 1944-1945"**.

Atomic War and Partisans

(*Continued from page 134*)

the beginning of the war, the partisan movements developed with difficulty and to a lesser degree; while in other areas, which did not fall into German hands until later, they soon blossomed forth to an unbelievable strength.

The explanation of this is very simple. The development of military operations gave the Soviet Command sufficient time to prepare the partisan action, establish ammunition dumps, construct food-supply depots, build shelters, establish a radio network, discover or arrange dropping areas for supply by air, and, perhaps most important, select and train leaders, agents, and spies for the partisan movement. Partisan war, like other forms of combat, requires time for mobilization and deployment. The German officialdom believed that the partisan activity was only a reaction to the bungling and pernicious practices of the civil administrators in the eastern areas. This was a fundamental error.

In Korea the United Nations troops successfully employed the instructions for the combat of partisans that the German OKW issued on 6 May 1944 as the basis for their combat of the North Korean and Chinese partisans. In this area the United Nations troops faced exactly the same difficulties as the Germans in Russia.

In November 1950 they had to assign four of their 10 divisions to the combat of partisans in their rear areas. The chief of the Chinese-North Korean partisans, Teng-teh-Huai, operated so successfully in spite of this that the number of soldiers who fell at this time in the combat of the partisans reached the same height as the losses on the front.

The overwhelming majority of the missing were treacherously murdered by the partisans or taken prisoner. Not until the South Korean units were assigned the task of combating the partisans was every partisan activity effectively halted; by the summer

of 1951, however, it was no longer a serious menace.

From a careful study of the partisan problem, therefore, the fact must be recognized that from the purely military standpoint, the partisan menace has in no way lost its significance as a result of the atom bomb—quite the contrary! While massed troop formations in the future will be exposed to atomic annihilation, the partisans will escape this most terrible and dangerous weapon of war.

The developments of modern military technique in the domains of aviation and signal communication are of aid to the partisans, but are almost of no use in combating them.

Partisans cannot operate, however, when their supply bases are exposed to enemy action.

This last fact, especially, explains why the anti-Soviet partisans who were active from 1944 to 1949 in the Baltic region, Lithuania, Poland, West Ukrainia, and southern Russia could not operate effectively. After the movement had grown to a few hundred thousand, it was beaten and in part wiped out by Soviet formations, because supply bases and a centralized high command were lacking to these anti-Soviet partisans.

It can only be hoped that the Western General Staffs will today, in foresighted preparation, perform the same work that the Soviet General Staff did in express tempo in 1941 and 1942 under the pressure of the German advance.

Certainly western Europe—in contrast with the Balkans and eastern Europe, as well as Asia—from the purely geographic point of view, is in a much more difficult situation with respect to partisan warfare. However, it is a mistake to believe that the population of western Europe would not be capable of defending itself if it really came to a matter of life and freedom.

The suggestion that the German Command was unsuccessful in 1944-45 in creating a strong partisan movement in the areas occupied by the Allies is a weak argument. At that time the German partisans could no longer look forward to receiving supplies since the German Command was often quite unable to supply the German fighting front and the German Luftwaffe was practically out of the picture.

It was Clausewitz who said: "Partisan warfare, however, evokes in people strength which, under other circumstances would never have asserted itself." His words have not lost their force even today in the shadow of the atom bomb, the rocket, and the jet squadron.

THE ROYAL REGIMENT OF CANADIAN ARTILLERY

EXERCISE SUN SHOT I

WRITTEN SPECIALLY FOR THE *Journal* BY MAJOR W. E. SILLS,
COMMANDING 1ST LOCATING BATTERY, ROYAL CANADIAN ARTILLERY.

Exercise Sun Shot I was designed to practise the 1st Locating Battery, Royal Canadian Artillery, and the Divisional Counter Bombardment (CB) Staff Troop in their operational role. It took place at Camp Shilo, Man., from 31 May to 14 June 1957, and was the first of its kind to be held in Canada.

To enable the reader to picture more clearly the course of the exercise as it is described below, let us review the role and employment of the divisional locating and counter bombardment elements. It will be seen that while these elements are separate organizations they work hand-in-hand to achieve the common aim—the neutralization or destruction of the enemy mortar.

The CB Staff Troop is an integral part of HQ RCA. It provides a small CB staff at HQ RCA headed by the Divisional Counter Bombardment Officer (DCBO) and an Assistant Counter Bombardment Officer (ACBO) at each brigade headquarters. It is the job of the Divisional Locating Battery to find enemy mortars, by the use of radar and sound ranging equipment, and to pass the locations immediately to the CB staff. It is the task of the DCBO and ACBOs to direct the fire of our own weapons onto hostile mortars as the situation and the Commander's policy demand. The CB staff's sources of information come not only from the Locating Battery but also from the mortar reports received from all sources, from air and ground reconnaissance and from patrol reports.

Each sound ranging section of the Locating Battery deploys one advanced post (AP) in a forward battalion area. A base of microphones is laid out about 1000 yards in rear of the AP. These are connected to an electronic recorder at the section headquarters. When the surveyor on duty in the AP hears enemy mortars being fired he presses a button which turns on the recorder. The recorder records on a film the time taken for the sound to reach each microphone and from this data the locations are obtained and immediately passed to the CB staff.

Each radar section of the Locating Battery deploys two listening post (LPs) in the forward areas. In addition, two radar sets

A radar listening post showing the flash spotting instrument with remote control to a No. 52 radio set.

per section are deployed in the divisional area where they can best cover the front. The surveyor on duty in each LP passes mortar reports by wireless directly to the DCBO and ACBOs. The DCBO by plotting the bearings obtained from these reports and those received from all other sources can then direct the radar sections to "look in" at the bearing intersections. The locations made by the radars are immediately broadcast to the DCBO and ACBOs.

Exercise Organization

Part of 1st Locating Battery went to Camp Gagetown in late May to do the survey for the divisional artillery during the summer exercises there. Only one troop then was available for Sun Shot I. This was "A" Composite Troop consisting of one sound ranging section and one radar section. A composite troop normally covers a brigade front. The CB Staff Troop provided a complete divisional CB office.

A small control staff from the Royal Canadian School of Artillery represented: HQ RCA; ACBOs at brigade headquarters; Corps CB Staff; the missing element of 1 Loc Bty RCA (e.g., "B" Composite Troop); all sources of mortar re-

ports other than from locating-elements, (e.g., infantry sub-units and artillery observation posts); Commanding Officers and Battery Commanders of field regiments.

A troop of 4.2-inch mortar manned by personnel from the Royal Canadian School of Artillery and The 1st Regiment, Royal Canadian Horse Artillery, represented the enemy mortars. This troop many times became "friendly" and manned 105-mm. howitzers to represent the guns placed on priority call to the DCBO. Much praise is due these fine gunners. They were on the go night and day for the whole exercise. They lifted and fired 1000 mortar bombs and 400 shells. Fresh rations could not be delivered to them for safety reasons. Consequently they were fed pack rations during the whole exercise.

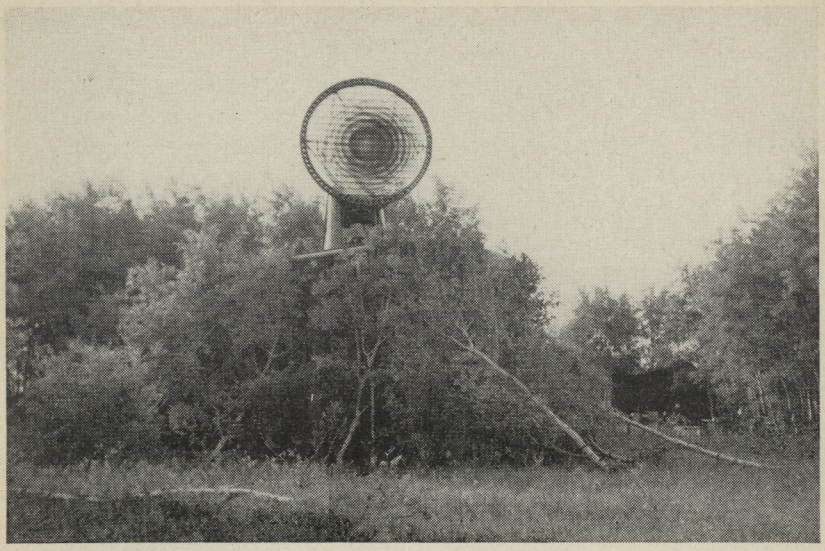
Setting

Friday, 31 May, found the 1st Locating Battery and the CB Staff Troop in Riding Mountain National Park ready to commence collective training on Monday morning. During the week-end, however, a crisis in the international situation interrupted the plans because 1st Infantry Division was assigned an operational rather than a training role. The country south of Canada, Southland, had been occupied for a number of years by the Fantasians. On 1 June Southland revolted. On 2 June the Fantasians falsely accused Canada of supporting the revolt and threatened to attack. To guard against this threat the Division was ordered to occupy a defensive sector at the Canadian border. The Division was to move in advance to contact formation.

The Exercise

From the Park the route was south through the Shilo ranges, over the Assiniboine River and south to the border. The orders detailed harbour areas on the near bank of the Assiniboine from where the packets would be called forward to be ferried over the river. On the far bank each packet was to move to a pre-arranged harbour area from where they would be despatched on their southward move.

The move began at 0500 hours on 3 June "A" Composite Troop Commander moved with the hypothetical advance guard headquarters. He had with him the two LPs from the radar section. Thus if the advance guard was forced to deploy he would be able to deploy the LPs quickly. This would enable a CB picture to be initiated immediately our troops came under mortar fire. The packets of vehicles from the re-



The radar set.

mainder of the Battery and the Divisional CB office crossed the start point at times which would put them in their appropriate positions in the divisional column.

Each packet made one halt only, in a pre-arranged harbour area, along the 147-mile route before reaching the near bank harbour areas. The halt was for 10 minutes for re-fuelling from jerry cans. The move was executed perfectly.

No sooner had "A" Troop Commander moved into his harbour area when the CO of the direct support field regiment told him some disturbing news. The Fantasians had crossed our border at first light. They were now over the Assiniboine about 10 miles north of our proposed crossing site. Our vanguard was in contact with forward Fantasian elements moving down from the north. The Troop Commander immediately ordered his two LPs to move and deploy with the remainder of the advance guard and prepared to deploy his sound ranging and radar sections as they arrived in their harbour areas. It was not long before this was done and the CB office was receiving mortar and location reports.

The intensity of mortar firing increased throughout 4 June. By the following day it was clear that the Fantasians were building up

for a major assault from the north. There was also evidence that he would try an assault crossing of the river from the south. Having deployed so rapidly the Division was not in a good position to withstand a simultaneous attack from two directions. Consequently the Division was ordered to withdraw to a better defensive position.

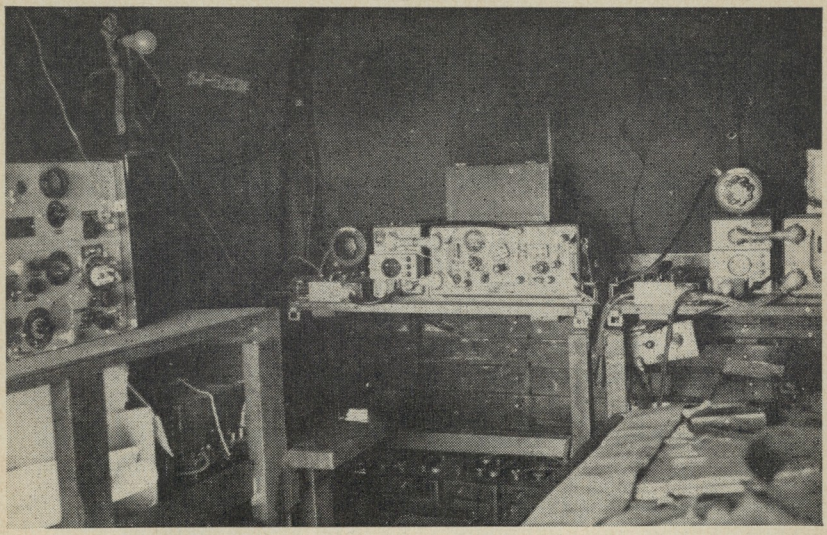
"A" Composite Troop moved back at 1900 hours with the first brigade to withdraw. That night was quiet for the Troop since the front was held by the other two brigades. The CB office, however, was busy dealing with locations submitted by the ACBOs with the forward brigades which were represented by the control staff. By 0300 hours 6 June the withdrawal was complete. At 0500 hours the enemy was in contact once more and the air was filled with mortar and location reports. The control staff was busy answering the calls for bombards from the DCBO. The tempo of battle increased but on the evening of 7 June word was received that 1st Infantry Division would be relieved during the night. The relief was completed by first light and all locating and CB elements were hidden in the concentration area by 0600 hours.

The rest period was short-lived. Aerial reconnaissance showed considerable enemy activity on the far side of the swamp north-east of Shilo. It appeared that the Fantasians were about to try another surprise move by assaulting from an unexpected direction. Accordingly the Division was ordered to occupy a defensive sector to block such a move.

All elements were in action by last light, 9 June. Nothing happened until 0500 hours, 10 June, when mortar activity showed that the enemy had crossed the swamp. Aircraft dropped propaganda leaflets over the whole front that evening, and, later, enemy propaganda broadcasts were heard over the PA system. The broadcasts, having no effect, were followed by a resumption of enemy mortaring.

By first light on 11 June location reports were pouring into the CB office which showed that the enemy was edging his positions forward. That same day orders were issued for a two-brigade attack to drive the enemy back over the swamp. H Hour was set for 2200 hours.

The DCBO was instructed to prepare a counter-mortar fire plan on call to cover all stages of the attack. Medium guns were placed on his priority call for the operation. The meteorological data for the fire plan was obtained extraordinarly quickly by engaging a datum point by radar observation



A radar section Command Post in a 2½-ton truck.

just before H Hour. The final objectives were reported secure after an intense three-hour battle. During that attack the DCBO had called for practically the whole of his fire plan. Whenever the guns fired on a target both the sound ranging and the radar sections reported the location of the fall of shot as a check on the accuracy of the fire.

The successful conclusion of the attack was followed closely by orders for the Division to relieve 2nd Infantry Division on the right. The latter had borne the brunt of two massive assaults and had been forced to give up some ground. Although they had resisted valiantly, their casualties had been so high they could not be expected to contain the enemy much longer.

The relief was completed by 0500 hours, 12 June. The DCBO of 2nd Division turned over all known locations to the relieving DCBO. Enemy mortaring was intense throughout that day. The CB Staff was busy ordering bombards on the many locations as soon as they were detected.

More and more locations were detected and bombarded during 13 June. In addition, the BMRA gave the radar section the job of conducting a night harassing fire programme. The fire was to be corrected onto the targets by radar observation. The BMRA indicated the targets to the radar section

commander and to the guns by issuing them the normal "Tiddler" task table form. The commander of the gun troop reported to the radar section headquarters before the shoot. He provided the wireless link through which the fire orders were passed from the radar to the guns. Later examination of the target areas revealed how deadly accurate the fire was.

Early on 14 June orders were issued for the Division to attack to capture high ground as a base for a major assault which would drive the Fantasians over the Assiniboine. H Hour was 1100 hours.

The DCBO was again directed to prepare a counter-mortar fire plan on call in support of the attack. Also, orders were issued for the sound ranging section to engage by sound adjustment all mortars within range which fired between 0800 and 1000 hours. This is a very effective way of dealing with active mortars. The process is basically one of comparing the film of an active mortar with that of the burst of our retaliatory fire. The corrections to the guns are read and ordered by the sound rangers. When the film shows that the location of our bursts is the same as the location of the mortar then it can be safely assumed that the mortar is neutralized or destroyed.

For obvious safety reasons the enemy mortars which were to be engaged by sound adjustment were represented by explosive charges which the control staff fired electrically from a remote and safe location.

At 0900 hours the gun troop commander reported to the sound ranging section headquarters. Again he was the link to the guns. The sound rangers corrected the fire on all locations made during the previous and following hour. The results were 100 percent effective.

The attack went as scheduled. Based on the mortar and activity reports which the DCBO received, he called for the guns on his priority call to engage a number of the serials and groups of tasks in his fire plan. Finally, word was received that all objectives had been taken and that Exercise Sun Shot I was ended.

Conclusion

Exercise Sun Shot I was a great success. It was the first combined locating and CB exercise to be held in Canada. Many lessons were learned not only in the handling of the divisional locating and CB elements in the field but also in the preparation of exercises for these elements. It proved the value and need for complete in-

(*Continued on page 152*)

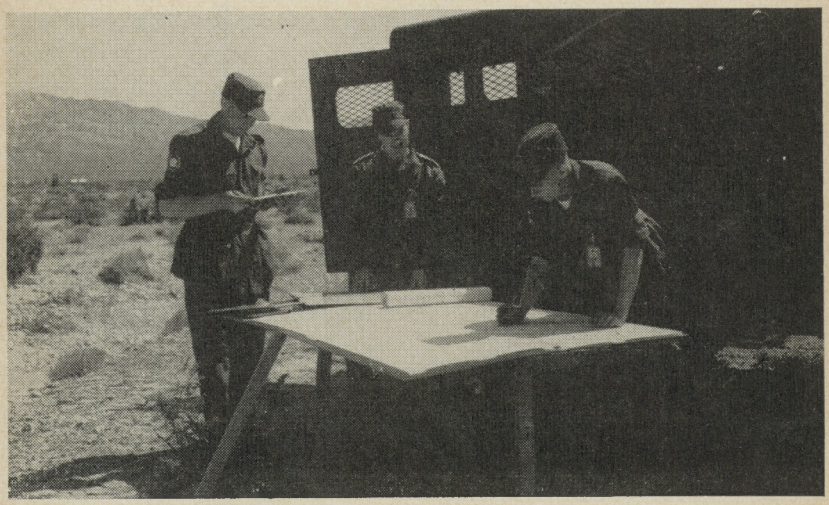
THE CORPS OF ROYAL CANADIAN ENGINEERS

NO. 1 RADIATION DETECTION UNIT, ROYAL CANADIAN ENGINEERS

A REPORT WRITTEN FOR THE *Journal* BY NO. 1 RDU, BARRIEFIELD, ONT.

Members of No. 1 Radiation Detection Unit, Canadian Army, have witnessed from seven to ten nuclear explosions in parts of the world as far separated as Australia and Nevada. Each explosion has differed in characteristics of flash, blast, heat and radiation, depending upon size, height of burst, time of explosion and other factors, and each has contributed to the training and experience of the personnel of the unit.

No. 1 RDU was initially formed as an experimental unit to do development trials on radiac equipment and work associated with nuclear radiation. It soon gained practical experience. On Exercise Charity, the unit assisted the health physics and decontamination centre at Chalk River during the break-down of the reactor in 1951. During this operation the unit provided personnel to assist in the decontamination of the



Radio-active areas are plotted on a map at the Control Centre.

A vehicle which has just returned from a radio-active area is cleaned with a vacuum cleaner or washed with water and then checked with a radiation detector.

calandria and gave direction to other military personnel who were brought in to assist in the clean-up.

Given the task of defining areas of ground contamination, the unit developed drills for quick determination of "hot" areas. This work was climaxed by Exercise Sapling in 1955 during which the unit participated in the atomic trials in Nevada. The unit was expanded into a tri-service organization of Navy, Army and Air Force for the exercise with the tasks of testing the drills under radio-active conditions and doing trials on radiac equipment, military clothing, decontamination procedures and the functioning of a mobile decontamination centre.

At the conclusion of this exercise, the unit returned to Canada and conducted Exercise Simulator, an experimental development user trial on a device to simulate a radiation field by means of radio waves. Possessing the advantage of easily placed simulated fields that can be quickly varied for size and intensity, this equipment should prove a valuable training aid, since personnel can be trained to work in these fields without any radiation hazard to the trainees.

In the spring of 1956 No. 1 RDU prepared for Operation Buffalo. The unit, with a small number of attached air force personnel, went to Australia to participate in the British Atomic Trials. During these trials, full use was made of the unit's capabilities as an engineer organization to assist the task force in preparing the ranges and

constructing structures to be tested, and as a scientific group integrated with the British scientific units. It also served in its normal role of radiation measurements, producing iso-intensity contour maps of the radio-active contamination of the final shot. Other tasks which personnel of the unit carried out included decontamination, health physics, beta-gamma measurements, initial neutron flux determination and laboratory assistance. The Superintendent of the Trials Planning Division, Atomic Weapons Research Establishment (AWRE), wrote a personal letter of appreciation for the unit's assistance in preparing the range for the operation.

Canadian Civil Defence, appreciating the value to be gained from this operation, attached one of their technical staff to No. 1 RDU for the duration of the trials.

On their return to Canada a change-over in personnel necessitated re-training of the unit. To facilitate this, No. 1 RDU was integrated into the U.S. military trials on Operation Plumbob. The main object of the unit's participation was to acquire training in radiation measurement and field reconnaissance and survey. Advantage was taken of the wide expanse of desert land to conduct preliminary training in "clean" areas prior to operation in contaminated areas following shots. Further trials on military equipments required for this type of operation were also carried out.

The operations and exercises have provided technical knowledge and general information required by military personnel in order that they may operate to their best advantage in the event of nuclear warfare. It has not only provided training for personnel of No. 1 RDU but also for the Navy and Air Force who have been associated with the unit in these trials.

Exercise Sun Shot I

(*Continued from page 148*)

tegration during training of the CB Staff Troop and the Divisional Locating Battery.

Even in this age of nuclear weapons the mortar will continue to be as damaging as ever. Exercise Sun Shot I showed that the locating and CB gunners are able to carry out their roles effectively. Not content with this alone, they are looking forward to assuming the added responsibility of locating and dealing with rockets and guided missiles.

THE ROYAL CANADIAN ARMY SERVICE CORPS

THE MacQUEEN TROPHY FOR MOTOR TRANSPORT EFFICIENCY

A REPORT WRITTEN FOR THE *Journal* BY THE DIRECTORATE OF SUPPLIES AND TRANSPORT, ARMY HEADQUARTERS, OTTAWA

One of the most coveted awards and certainly the most keenly contested competition in the Royal Canadian Army Service Corps is for the MacQueen Trophy for Motor Transport Efficiency. It is awarded annually to the Royal Canadian Army Service Corps (Regular) Static unit which obtains the greatest number of points based on the maintenance grading, accident rate and number of miles travelled per vehicle.

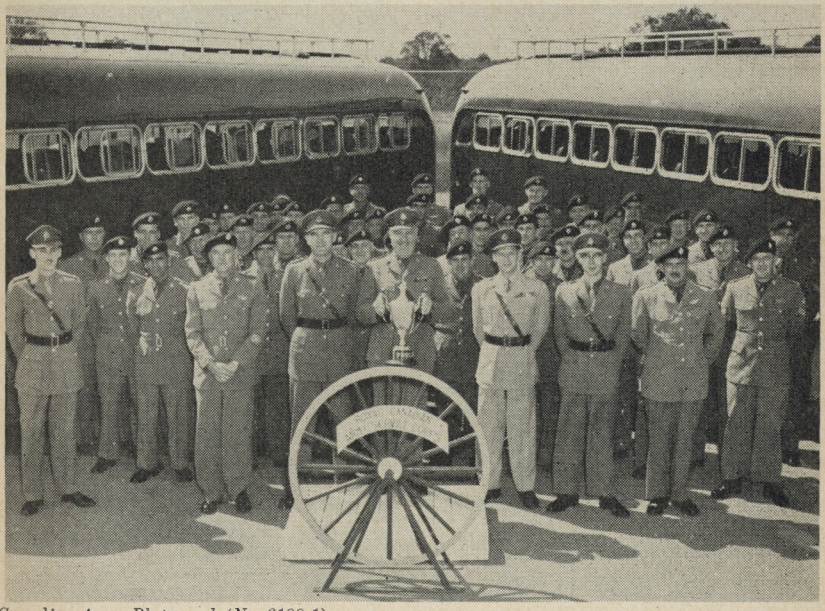
This trophy was originally

Canadian Army Photograph (No. 6199-4)

Colonel G. F. Stevenson, CD, Director of Supplies and Transport at Army Headquarters, Ottawa, inspects No. 2 Company, RCASC, at Lakeview, Ont., before presenting the MacQueen Trophy to the unit as the Canadian Army's best transport company for 1956.

donated by Major-General J. H. MacQueen, CBE, CD, at present President of Canadian Arsenals Ltd. It is of interest to note that Major-General MacQueen is a former Royal Canadian Ordnance Corps officer holding the appointment of Master General of Ordnance from 1945 until retirement in 1947. It was in 1942, however, in his capacity as Deputy Quartermaster General at Canadian Military Headquarters in London (1941-45) that he conceived the idea of a competition for Motor

Major-General MacQueen



Canadian Army Photograph (No. 6199-1)

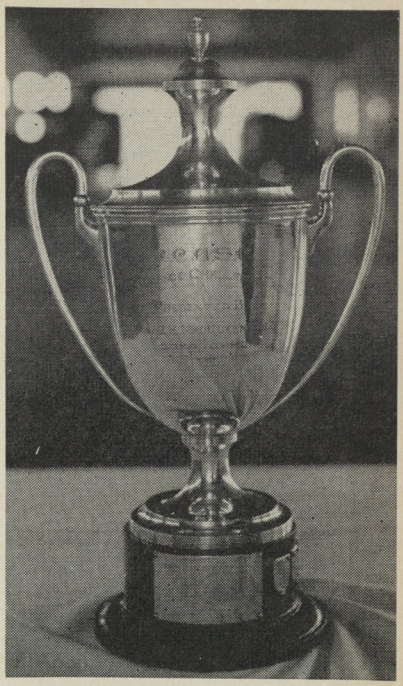
Officers and men of No. 2 Company, RCASC, Lakeview, Ont., the 1956 winners of the MacQueen Trophy. Major H. E. Patrick, Officer Commanding the company, is seen holding the trophy.

Transport maintenance efficiency and donated the trophy.

Major-General MacQueen, in directing attention to MT maintenance, provided an incentive for a high standard in RCASC workshop establishments, and encouraged the competitive spirit generally throughout the MT sections and the Corps as a whole.

The first winner of the MacQueen Trophy (1943) was the First Canadian Motor Ambulance Convoy, RCASC, then Commanded by Major J. D. Cheatley, now Lieutenant-Colonel and Deputy Director of Supplies and Transport.

The most recent winner was No. 2 Company, RCASC, Lakeview, Ont., commanded by Major H. E. Patrick.



The MacQueen Trophy.

The winners since 1948 are:

1948—No. 3 Company RCASC, Kingston, Ont.
1949—No. 12 Company RCASC, Regina, Sask.
1950—No. 5 Company RCASC, Quebec, P.Q.
1951—No. 5 Company RCASC, Quebec, P.Q.
1952—No. 6 Company RCASC, Halifax, N.S.
1953—No. 6 Company RCASC, Halifax, N.S.
1954—No. 6 Company RCASC, Halifax, N.S.
1955—No. 3 Company RCASC, Kingston, Ont.
1956—No. 2 Company RCASC, Lakeview, Ont.

CANADIAN ARMY ORDERS

Listed below is a resumé of Canadian Army Orders for the information of military personnel. Details of these Orders are available in all Army units. —Editor.

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CAO 4–2
(*Issued: 15 Jul 57*)
Reporting of Motor Vehicle Accidents to Provincial Authorities

This amendment to Appendix "A" provides that vehicle accidents occurring in the Province of New Brunswick will be reported to provincial authorities when the property damage caused by the accident apparently exceeds $100.00.

CAO 20–24
(*Issued: 8 Jul 57*)
Subsidization of Undergraduate Students of Medicine

This new order outlines the conditions of service for the subsidization of medical students in their penultimate and/or final years at university. Each year AHQ will state the number of undergraduates in medicine who will be accepted.

CAO 21–2
(*Issued: 1 Jul 57*)
Vehicles and Equipment in Armouries and Drill Halls—Restrictions

This revision provides for the extension to area commanders of the power now held by officers commanding commands to authorize the parking of DND vehicles and equipment in armouries and drill halls. In addition, the supply of drip pans for use under vehicles parked in armouries and drill halls is now the responsibility of the RCOC instead of the RCE.

CAO 46–3
(*Issued: 8 Jul 57*)
Ceremonial—Artillery Salutes

This amendment establishes a date on which a Royal Salute in honour of the official birthday of the Sovereign will be fired annually.

CAO 51–2
(*Issued: 15 Jul 57*)
Civilian Reporters—Hiring and Payment

This amendment limits the number of copies of transcripts which may be purchased at public expense to ten unless prior approval of Treasury Board is obtained. It also prohibits the payment of attendance fees for time spent in travel on Sundays, public holidays or

during periods outside of the reporter's normal working hours.

CAO 53–2
(*Issued: 8 Jul 57*)
Claims By or Against the Crown

This revision outlines a procedure for reporting and investigating claims by or against a visiting force in Canada under the NATO Status of Forces Agreement and claims by or against Canadian Forces in the United States.

CAO 67–1
(*Issued: 3 Jun 57*)
Administrative Deductions—Procedure on Ordering

This new order, which supersedes Appendix "B" to CAO 63–2, provides the form to be used by appropriate authorities in ordering an administrative deduction under QR (Army) Chapter 38 together with instructions for its completion and distribution.

CAO 79–5
(*Issued: 1 Jul 57*)
Restrictions—Drivers of DND Vehicles

This revision clarifies existing policy with respect to restrictions on a DND driver whose civilian licence is cancelled or suspended by the civil power.

CAO 84-26
(*Issued: 30 Sep 57*)
Badges—Good Conduct

This amendment provides for the award of a good conduct badge to a man who has completed two years' service and whose conduct sheet does not contain entries of punishments greater than fines of $20.00, and for the forfeiture of one good conduct badge for each entry in the conduct sheet of punishments greater than fines of $20.00.

CAO 85–8
(*Issued: 1 Jul 57*)
Authority of Civilian Employees to Issue Instructions and Sign Documents

This new order is the publication of AGI 55/2 in CAO form. It incorporates policy and procedure in regard to authorizing civilian employees to issue instructions and sign documents.

CAO 94–2
(*Issued: 5 Aug 57*)
Permanent Assistance in Militia Orderly Rooms and Quartermaster Stores

This new order is a revision of AGI 55/16 and incorporates policy and procedure in regard to the provision of permanent assistance in orderly rooms and quartermaster stores of Militia units.

CAO 139–5

(*Issued: 30 Sep 57*)

Supplementary Death Benefits Plan

This new order supersedes AGIs 54/37 and 55/11, and incorporates information concerning the 1956 amendments to the Public Service Superannuation Act which affect the Supplementary Death Benefits Plan. These amendments concern automatic participation in the Plan, under certain circumstances, of a person who had previously elected not to participate; the period during which an election can be made to continue as an elective participant in the Plan subsequent to release and the qualifying time required as a participant in order to make such an election.

CAO 166–1

(*Issued: 15 Jul 57*)

Compensation for Loss of or Damage to Personal Property

This revision provides the entitlement to claim compensation for loss of or damage to personal property at full replacement value, and compensation for additional items not heretofore allowed. It also supersedes AGI 53/23.

CAO 174–14

(*Issued: 5 Aug 57*)

X-ray Films

This amendment prescribes that Chest X-ray Reports (ISM 20) will be completed in triplicate.

CAO 212–12

(*Issued: 29 Jul 57*)

Separated Family's Allowance

This amendment to Appx "B" and "C" incorporates the provisions of the amendment to QR (Army) 205.24(1)(c), effective 3 Oct 56, which provides for the payment of Separated Family's Allowance (SFA) in respect of a dependent child who normally resides with the officer or man at his place of duty. In addition it is desirable that attention be drawn to the requirement for a higher supporting assignment, when SFA is granted, as prescribed in CAO 212–22.

CAO 212–40

(*Issued: 29 Jul 57*)

Band Grants

This amendment to Appx "C" provides for the purchase, from band grants, of drummers' practice pads, french horn, cornet, trumpet and trombone mutes, and for payment of insurance premiums on articles purchased from band grants.

CAO 218–3

(*Issued: 7 Oct 57*)

Overseas Mail, Addresses and Rates of Postage

This revision brings up to date the postal addresses for Canadian

forces overseas. It also incorporates CAO 218–2 and notifies the postal addresses for dependents and school teachers overseas.

CAO 272–7
(*Issued: 30 Sep 57*)
Administrative Transport

This revision defines the new policy on the administrative use of Standard Military Pattern and Standard Commercial Pattern vehicles. This new policy permits the administrative use of SMP vehicles (heretofore restricted) in addition to their normal training role and other functions.

CAO 273–10
(*Issued: 3 Jun 57*)
Temporary Evacuation of Married Quarters Owing to Infestation, Disruption of Essential Services or Emergency Repairs

This new order outlines the manner in which a member who is compelled to vacate married quarters because of infestation, disruption of essential services or emergency repairs may claim reimbursement for the costs incurred for interim accommodation and meals during the period he is so disturbed.

CAO 274–1
(*Issued: 8 Jul 57*)
Toasts

This amendment outlines the new order of Loyal Toasts as approved by Her Majesty The Queen which reflects the granting to the Duke of Edinburgh of the style and titular dignity of a Prince.

"Standardization Among Allies": Article Reproduced from "Army"

In the acknowledgement accompanying the article entitled "Standardization Among Allies" (July 1957 issue of the *Canadian Army Journal*), it was inadvertently stated that the article was reproduced by courtesy of the magazine *Armor* (U.S.). This article, written by Colonel J. S. Lawrance, Jr., U.S. Army, was reprinted from *Army*, the magazine of the Association of the United States Army. It must *not* be reprinted from the *Journal* without permission from both the author and *Army*, who hold the copyright.

The *Journal* apologizes to both the author and the Association of the United States Army for any embarrassment this error may have caused.

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