CAPT MANUS

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The aim of the Canadian Army Journal, which is published by the Directorate of Military Training under authority of the Chief of the Defence Staff, is to provide the Canadian Army with information designed to keep it abreast of current military trends, and to stimulate interest in military affairs. The views expressed by authors are their own and are not necessarily those of the Department of National Defence. Reproductions of the text, in whole or in part, including quotations from the Journal are permitted only if readers are informed of this fact by suitable introductory or interpolated note.

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The Cover

Drawn by the *Journal's* artist, the cover illustration depicts a dawn attack by Canadian soldiers during the First World War. (See "The Royal 22e Régiment, 1914-1964", page 13).

THE TANK THREAT

by

MAJOR N.A. SHACKLETON, CD

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"It is estimated that the number of tanks held by the Soviet Army is over seventy thousand".*

The gunpower, armour and mechanical efficiency of this equipment together with the method in which it will be employed in battle are questions of critical importance to those forces who may be compelled to meet the Soviet Army in action. It is the intention to discuss the implications of the Soviet tank threat and to determine the impact which this mass of armour will make upon the conduct of operations in the event of war in Europe.

Soviet tactical doctrine calls for three categories of tanks: a well-protected long-range tank destroyer; a fast, standard medium type of vehicle with good firepower against personnel and armour; and, finally, a light amphibious tank with a sufficiently powerful gun to guarantee the destruction of vehicles likely to be encountered in the role of reconnaissance.

The Soviet Reconnaissance Tank

The first Soviet tank to make its appearance during the advance to contact phase of an operation will be the PT 76 light tank. A dominating consideration in the design of this reconnaissance vehicle has been the problem of water obstacles. The PT 76, a 16-ton amphibian can cross inland waterways at nine miles per hour. Its 76-mm. gun pierces more than two inches of armour at 1000 yards; and its low silhouette (7.2 feet) facilitates concealment in the tasks of scouting and observation. However, the PT 76 has certain deficiencies. Its light armour plate is probably vulnerable to all anti-tank weapons at ranges where engagements are likely to occur; and its 25 m.p.h. road speed is less than that of the Soviet medium tank—a limitation in a reconnaissance vehicle during fast-moving operations.

Main Battle Tank

The standard medium tank of the Soviet Army is the T 54—a development of the well-known T 34 of the Second World War. The 40-ton T 54 possesses several noteworthy features. The high explosive armour-piercing ammunition of its 100-mm. gun penetrates six inches of armour at more than half a mile. This gun also fires the high explosive anti-personnel ammunition used by the Soviet field artillery. Top speed is 30-m.p.h. and the 250-mile cruising range (on roads) can be increased to 420 miles by the use of two auxiliary diesel fuel tanks. The sides and front of the dome-shaped, cast steel turret are 100 to 105-mm. thick;

**James D. McGuire, Office of the Assistant Chief of Staff for Intelligence, Department of the Army (U.S.), in an article "Soviet Tanks" published in the June 1962 issue of the magazine* Infantry *(U.S.).*—Author.

Soviet PT 76 Light Amphibious Tank which is used in the reconnaissance role. The gun is a 76-mm.

this anti-ballistic configuration is enhanced by a vehicle silhouette less than eight feet in height. Since 1958 T 54 tanks have carried infra-red equipment which probably allows the night time engagement of targets as far out as 1000 yards. By the installation of a schnorkel device the tank can cross streams more than 15 feet deep.

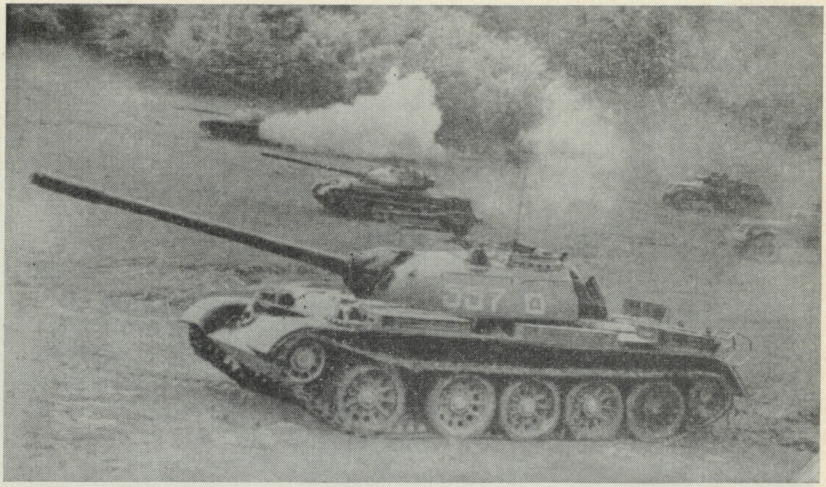
The exceptional features of the T 54 are its speed and firepower; despite the excellent design of its turret it is vulnerable to the fire of modern tank weapons located beyond the best ranges of the T 54's main armament. Therefore, in battle the T 54, moving at speed, and making the best use of ground between bounds, will strive to close the range to the point where its 100-mm. gun can produce decisive results against the enemy's armour.

Heavy Tank

The most powerful of all Soviet armoured vehicles is the T 10 heavy tank—the latest of the Joseph Stalin series developed during the Second World War. At 54 tons, the T 10 outweighs the current United States main battle tank, the M 60.* Formidable as a long-range tank killer, the 122-mm. armour-piercing shot of the T 10's main armament can defeat eight inches of armour plate at a distance of 1000 yards.

Less than eight feet in height, the T 10, with its turtle back configuration

**Details of armour plate and certain other data are quoted from D.F.M. Von Senger und Etterlin,* The World's Armoured Fighting Vehicles, *translated and edited by R.M. Ogorkiewicz, (London, 1962).*



Soviet T54 Medium Tank mounted with a 100-mm. gun. Note the interval between the tanks and the armoured personnel carriers in the background.

and massive armour plate, will be difficult to locate and hard to destroy at the ranges from which it is capable of initiating an engagement. With a road speed of 22 m.p.h. and a cruising range of 137 miles, the T 10 lacks the tactical agility of the Soviet medium tank; and it is more dependent upon logistic support for extended operations.

Features which may be regarded as limitations are its slow rate of fire, because of separately loaded ammunition, and its restricted stowage which permits the carriage of just 35 rounds. Although the turret ring diameter compares favourably with those of current Western tanks, it is possible that the low silhouette of the T 10 has been achieved at the expense of crew comfort and perhaps efficiency. Fire control and sighting equipment for both day and night fighting are thought to be comparable to those of modern Western tanks.

Discussion on Soviet tanks inevitably leads to comparisons with armoured equipment of the Western Powers. As neither the Soviets nor the West possess a marked technological advantage over the other, differences in tank design can be attributed to differing concepts of organization and tactics of armoured forces. As a consequence there is a variation in the emphasis placed on one or other of the conflicting requirements of gunpower, armoured protection and automotive capability. Soviet tactical concepts have led to a requirement for three basic tanks: a light amphibian, a standard medium and a long-range heavyweight.

On the other hand, development in the United States and Britain has tended toward the production of a gen-

eral purpose vehicle which can perform long-range anti-tank defence, close infantry support and the roles of exploitation and pursuit. The results of this policy are the British Chieftain and the United States M 60, both of which, by Soviet definition, may be regarded as heavy tanks although the latter vehicle mounts a 105-mm. gun in contrast to the 120-mm. gun of the Chieftain. The T 54 lacks an exact counterpart in Britain and the U.S. and as yet there is no tank in service with the amphibious capability of the Soviet PT 76.* Notwithstanding, the really significant differences between Soviet tanks and those of the West are less of a technical character than of gross disparity in numbers.

Strategical and Tactical Implications

In Eastern Europe strategy implies movement by road, rail and air. The land approaches likely to be selected as invasion routes into Western Europe are served by a road and rail network that could well cope with the movement of large armoured forces. Bearing in mind the huge volume of traffic shifted in that area by the Germans until the closing stages of the Second World War, it would be unwise to assume that Allied air interdiction could significantly interfere with such activity during the initial phases of another conventional war. In addition, the concentration of armour in locations adjacent to the Iron Curtain before the opening of hostilities would reduce the number of vehicles exposed to the hazards of lengthy approach marches before joining battle.

Once underway, a major difficulty confronting a Soviet armoured advance into Western Europe would be the numerous water obstacles and the destruction of bridges. This problem has been fully appreciated by the Soviets, and there is reason to believe that they expect to force the rapid passage of water barriers by a combination of airborne troops, bridging equipment and the employment of an extensive range of amphibious vehicles designed for crossing inland waterways.

The seizure of bridgeheads, the construction of bridges, and the preparation of launching sites and exits for amphibians on the larger waterways will be carried out with support from Soviet airborne divisions and army aviation. A number of Soviet aircraft are particularly suited for the kind of low-level operations required in river crossings. Outstanding amongst these are the Ka 22 vertical take-off and landing convertiplane with its capacity of 18 tons and the Mi 10 transport helicopter which carries 80 troops. In its role as a flying crane the latter aircraft has a payload of 16½ tons. After a bridgehead has been secured helicopters of this type may be expected to hasten the delivery and installation of heavy class bridging sections. The largest of this equipment is the 100-ton load capacity TMP pontoon bridge.

Two vehicles which will contribute to the security of bridgeheads during the construction phase of crossing operations are the ASU 57 and the ASU

**The new German Standard Panzer and the French AMX 30 are both comparable to the T 54 in weight, gunpower and armour. The similarity in the appearance of these three tanks may create recognition problems on the battlefield.* (Soldat und Technik 7, *July 1963, pp. 372-376.*)

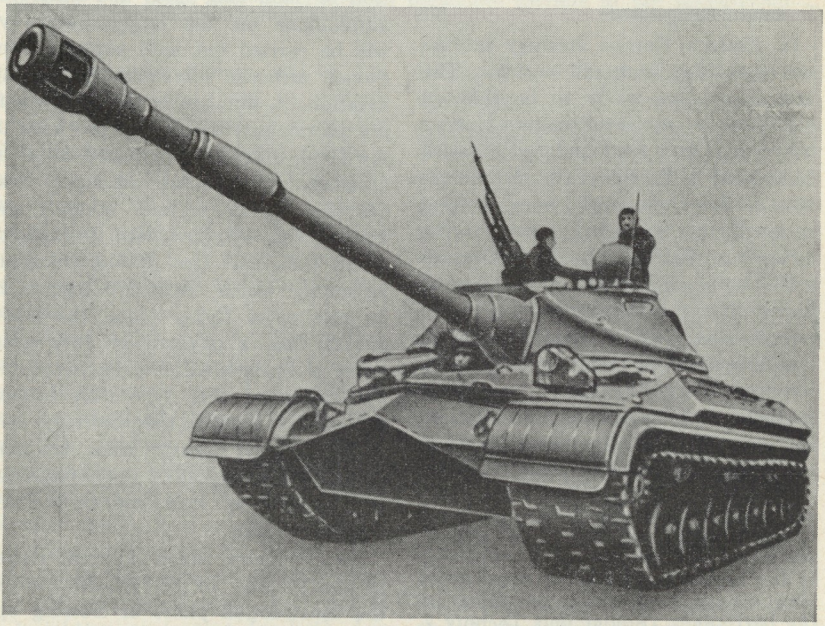
85. The first of these airborne, armoured and tracked self-propelled guns can be dropped by parachute; it weighs six tons and its 57-mm. gun can penetrate 5½ inches of armour at 500 yards. The second vehicle is in the 12 to 14-ton weight category and mounts an 85-mm. gun.

Armoured Advance

Having cleared the various bridgehead perimeters the Soviet armoured advance would be super *blitzkrieg* in character. Armoured columns would strive to achieve, in terms of hours, penetrations up to 100 miles in depth. To accomplish this aim they would endeavour to by-pass or else overwhelm defended areas by weight of armour and firepower.

The 400-odd tanks of each leading division, advancing in waves, may be concentrated on frontages as narrow as two miles with a density as high as 70 tanks to each wave. If the use of nuclear weapons by the defence is thought to be imminent these frontages may be extended by one or two miles and the tanks deployed in greater depth, that is to say, with a longer space interval between succeeding waves. However, it seems unlikely that this distance would exceed 1000 yards, in which case, during an advance of more than ten miles per hour, the defence could be confronted with a fresh wave of tanks every four minutes.

In addition to tanks the armoured columns would include infantry mounted in armoured personnel carriers. The



Soviet T10 Heavy Tank. The gun is a 122-mm.

grouping and disposition of the mounted infantry would be determined by various factors; but against a static defence a primary consideration would be the immediate availability of infantry for action against dug-in troops and ground mounted anti-tank weapons. Some idea of the proximity of mounted infantry to tanks during an advance may be gained from the deployment of T 54s and APCs shown in the illustration on page 4.

In the course of the armoured assault, Soviet tanks will fire on the move. Soviet tactical doctrine recognizes that much of this fire will be inaccurate but justifies it on the grounds of its shock and demoralizing effects upon the defence. A proportion of the Soviet heavy tanks and armoured assault guns will be assigned to the specific task of destroying enemy tanks and in putting down speculative fire on locations which are likely to harbour the operators of anti-tank guided missiles.

Against a strong and well organized defence, the Soviet armoured assault would be supported by artillery, multiple rocket launchers and mortars. These tractor-drawn equipments may be deployed at distances up to five miles behind the assaulting armour. The effectiveness of this support can be gauged from the fact that 11 tons of high explosive could be delivered by the artillery of the motor rifle division in *one salvo* and that the guns of the 122-mm. howitzer regiment alone can bring down 216 48-pound shells in one minute. It may be expected that some of the Soviet artillery will employ proximity fuzed projectiles timed to burst over the heads of dug-in troops. This fire would be maintained until tanks, with their hatches closed down, overrun the enemy position.

Defensive Measures

For reasons which will be apparent to the reader the best defence against assaulting armour is the tank. However, to compensate for their shortages in these vehicles, Western armies are relying to an increasing extent upon anti-tank weapons. These include recoilless rifles, rocket launchers, and perhaps most important, anti-tank guided missiles. These weapons are less costly than tanks; and if we exclude all other factors which influence the course of a battle, the anti-tank weapon has clearly gained ascendancy over tank defensive armour. It is likely that the advent of the modern anti-tank weapon, particularly the anti-tank guided missile, has been the cause of some concern in Soviet military circles. This is evident from the articles on the subject which appear in Soviet Bloc military publications.

Writing in the *Voyennyy Vestnik*,* official organ of the USSR Ministry of Defence, Colonel A. Mel'nik states: "As one approaches the forward edge of the defences the intensity of anti-tank fire increases. Between 1.5 and 1 km. away from the forward edge enemy tanks and ATGMs (anti-tank guided missiles) situated in the defence areas of the infantry companies ... are in force; at 800 metres one encounters fire from recoilless guns; between 400 and 300 metres—rocket anti-tank smooth bore rifles and then rifle grenades. The greatest concentration of anti-tank fire is between 200 and 100 metres from the forward edge. It is therefore neces-

**Voyennyy Vestnik*, No. 3, March 1963.

sary to destroy anti-tank weapons... Artillery in direct support of attacking tanks... fires on individual... anti-tank means and strong points. ATGMs on the rear slopes of hills may be destroyed by howitzers and mortar fire... It is also a good idea at this time to use smoke shells to unsight operators of ATGMs".

In the Jan. 1962 issue of the same magazine, Major R. Finkel'shteyn discusses the use of smoke. "Calculations show that an effective screening of a position by smoke along a one-kilometre front, in a wind of five metres per second, in the course of seven to eight minutes, would require up to 500 rounds of 85-mm. shells. However... there is no need to put up a solid smoke screen. As has been pointed out more than once in the press, in order to hit a target, the launching operator is required to observe it continuously for a period of 10 to 20 seconds, otherwise the probability of hitting becomes extremely small".

A further and perhaps more significant comment on the anti-tank guided missile is contained in an article by Tadeuss Burakowski which appeared in *Zolnierz Polski* (Polish Soldier) of 15 July 1962. The writer states: "...on the basis of range trials during which 80-100% accuracy was achieved, it can

Soviet Mi 10 (HARKE) transport helicopter carrying a 12-ton truck. The maximum payload is 33,302 lbs. or 80 passengers.

Soviet ASU-57. Weighing six tons, this 57-mm. assault gun can be dropped by parachute. A heavier version mounting an 85-mm. gun is now in service.

be affirmed that under combat conditions, taking into consideration the fire of attacking troops, the nervousness of the operators, malfunctions in the rockets, poor visibility of targets... and the many other factors which can have a detrimental effect on accuracy, operational efficiency should reach 50% of range efficiency. It is accepted that, even under unfavourable defensive conditions, guided anti-tank rockets will be able to destroy 40% of the attacking tanks".

Mr. Burakowski does not indicate the sources of his information nor does he explain the basis upon which his percentage is arrived at; but he does point out that surprise, movement at speed and the use of smoke are defensive measures which should be adopted by tanks. The Soviet Bloc has good reason to view the development of the modern anti-tank weapon with concern. Since the end of the war an integral feature of their tactical doctrine has been the decisive role which massed armour would play in offensive operations. With this aim in mind the Soviets have created the world's largest and most modern tank forces.

How effective is the anti-tank weapon against this force? And to what extent can the defence prevail over the armoured assault?

In the absence of other criteria we must turn to the Second World War for an indication of the efficacy of the defence in a battlefield environment comparable to the one under consideration. On 18 June 1944 the German strength at the Normandy bridgehead was barely equivalent to ten divisions with 600 tanks and some 400 aircraft. Facing the Germans was an Allied force of 20 divisions, 1700 tanks and 13000 planes.* The results of this difference in relative strengths are revealed in a report made in the field by General Heinrich von Luttwitz. "...The incredibly heavy artillery and mortar fire of the enemy is something new... The average rate of fire on the divisional sector is 2000 artillery rounds and 8000 mortar rounds per day. This is multiplied many times before an

*B.H. Liddell Hart, The Tanks, (2 Vols., London, 1959), II, p. 348.

enemy attack. For instance, on one occasion when the British made an attack on a sector of only two companies they expended 3500 rounds in two hours... In addition the enemy have complete mastery of the air. They bomb and strafe every movement, even single vehicles and individuals".*

Despite these handicaps the Germans exacted a heavy toll in Allied armour. Notable examples occurred on 18 July 1944 with the combined loss of 150 tanks by two armoured divisions followed by the loss of 65 tanks by an armoured brigade on the next day and, on 9 August when a single armoured regiment had 47 tanks knocked out.† It may be argued that the circumstances of the Normandy battles and those likely to prevail in a future conflict are insufficiently analogous to permit the formulation of valid conclusions. To some extent this is true; notwithstanding, it should be noted that the German infantry regiment (brigade) of 1944 contained less than 50 anti-tank weapons. This figure is exceeded by those held in the modern infantry brigade group; in addition, modern anti-tank weapons are capable of more rapid displacement than the towed guns of 1944. Another factor to be considered is that of relative mobility. For obvious reasons the movement of German formations at the Normandy bridgehead was largely restricted to the foot pace of the soldier; in contrast the modern brigade group is completely mounted.

Although by no means conclusive, the evidence strongly suggests that, in the defence, tanks and anti-tank weapons in the hands of trained and resolute soldiers can dominate forces several times their strength in tanks on the armoured battlefield. Furthermore, the ascendancy of the anti-tank weapon over the tank is increasing steadily; a recent development of significance is the Shillelagh weapon system. This consists of a 50-pound missile incorporating microbeam-guidance equipment so accurate that Shillelagh can destroy a tank several miles away. The missile will be launched from the Sheridan tank, a 16-ton amphibious airborne vehicle which will be in full production in the United States by 1966.*

Soviet-NATO Relative Strengths

It is beyond the scope of this paper to speculate on the possibility of a conventional war in Europe. However, if we accept the fact that such a possibility exists, the strength and capabilities of the potential enemy must be clearly recognized. The Soviet order of battle, west of a line roughly from Moscow to the Crimea, has been estimated at 107 tank and motorized divisions supported by a number of artillery and anti-aircraft formations. The tank strength of this force probably exceeds 32,000 vehicles. In addition, there are 10 airborne divisions in the Soviet Army with a probable simultaneous airlift for one or two divisions. Another 44 divisions of various types are found in the Satellite forces with a possible tank strength of 9000 vehicles.

M. Shulman, Defeat in the West, London, 1947, p. 118.

†*Liddell Hart, op. cit., pp. 365, 367; Stacey, The Canadian Army 1939-45, p. 199.*

*Time, *Canadian Edition, 14 February 1964, p. 55.*

The NATO forces on the Central European Front, that is between the Alps and the Danish border, number less than 25 divisions.*

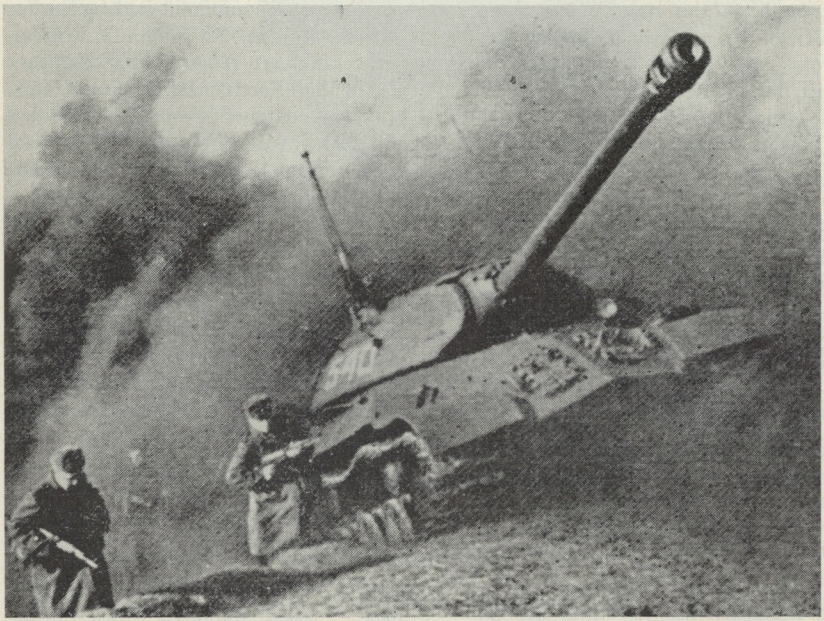
Conclusion

It is the widely-held opinion of tank commanders who have served in Europe that, with few exceptions, the majority of ranges at which tank engagements are likely to occur will be under 1000 yards. Tank guns of the 100-mm. calibre have now achieved a degree of lethality that virtually guarantees the destruction of any vehicle which fails to utilize ground and which does not present its most heavily armoured aspects to enemy fire at these ranges. This observation applies to an even greater extent to the fire of tank guns of the 120-mm. category.

If we consider these facts in the light of the Soviet-NATO relative strengths it would seem that the operations of our armoured forces must be entirely defensive in character until, by a process of attrition, the enemy is ultimately deprived of the means of continuing his armoured advance.

This problem is formidable. The only course open requires an accurate appreciation of the enemy's likely axes of advance and the confrontation of

**Alastair Buchan,* NATO in the 1960s, *(London, The Institute for Strategic Studies), pp. 10, 11 and 23. Estimates of tank strengths are the author's.*



Soviet Joseph Stalin 3. This tank is the predecessor of the T 10, and significant numbers remain in service. The gun is a 122-mm.

his armoured columns with a succession of defensive positions. This will demand reconnaissance forces which are capable of defeating the light tanks and armoured personnel carriers of the enemy screen so that the strength and movement of the enemy main body can be determined. Brigade and battalion groups must avoid the risk of being caught on the move by enemy armour. Units and formations must possess that rare quality only found in the best of armies—the capacity for orderly disengagement and withdrawal under enemy fire.

The weaknesses of this tactical theory are obvious. The speed of the Soviet advance would give little time for the preparation of defensive positions; confrontation of the enemy in sufficient strength at the right place would be difficult to achieve over such a long front; and in any event the enemy, with his greater strength, would strive to encircle or bypass such areas.

Resort to tactical nuclear weapons is considered by many to be the only means of redressing the Soviet advantage in armoured strength. However, even if we discount the possibility of escalation and the other implications, it is by no means certain that any advantage would be gained by the employment of these weapons. On the contrary, there are grounds for supposing that our weaknesses in manpower and equipment would be gravely exacerbated by their use. If it is assumed that the Soviets hold a range of tactical weapons comparable in variety and numbers to those of the West—and there seems no reason for assuming otherwise—the combination of massive armoured forces and tactical nuclear weapons could only widen the difference in relative strengths; this will be apparent when one considers the protection which is afforded by armour against nuclear blast and radiation.

There is little choice therefore in the manner in which the Soviet tank threat can be met. The possession of tactical nuclear weapons will be mandatory as long as the possibility of their use by the potential enemy exists. But equally important will be the intensive development of equipment and tactics for the conventional destruction of armour. More tanks are required. The deficiencies in the effectiveness of current anti-tank guided missiles must be remedied and these weapons mounted in vehicles armoured up to main battle tank standards. In view of the requirement for a high volume of rapid anti-tank fire, the reintroduction of the anti-tank gun on a suitable mount should be considered. Above all, training and tactical doctrine must be designed with the emphasis on fast movement, rapid deployments and the conduct of sustained defensive operations against an armoured enemy.

Czechs to Adopt New Uniform

The Czechoslovakian Army will abandon Soviet-style uniforms and revert to rank insignia used in pre-Communist days. This was reported in a Radio Bratislava broadcast monitored by Radio Free Europe.

The new uniforms will be khaki instead of green. Insignia will be used instead of strips beginning in October 1965. — *Army-Navy-Air Force Journal and Register (U.S.).*

The Royal 22e Régiment, 1914-1964

by

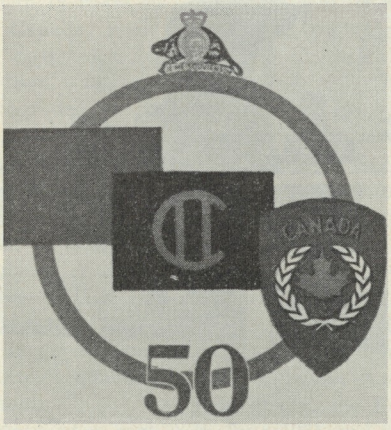
MAJOR LUCIEN TURCOTTE, MBE, CD*

Prologue

The date was the 15th of March 1964 and the time was 1400 hours. To the tune of *Vive la Canadienne*† the 1st Battalion of the Royal 22e Régiment began the first phase of a new operation that would once again carry Canadians overseas from Quebec and other provinces.

Cyprus — a land where the Canadian Army had never seen any service — was their destination. Canada had agreed to a request from the United Nations Organization to send a military force for the preservation of international peace and security.

"Le bataillon défilera en colonne de route — vers la droite en colonne de route à droite tournez — par la gauche au pas cadencé — marche"! These were the words of command under which the battalion marched past His Excellency General The Right Hon. Georges P. Vanier, DSO, MC, CD, Governor General of Canada, the Colonel of the Regiment, who had gone to Camp Valcartier to bid farewell to the members of the 1st Battalion.

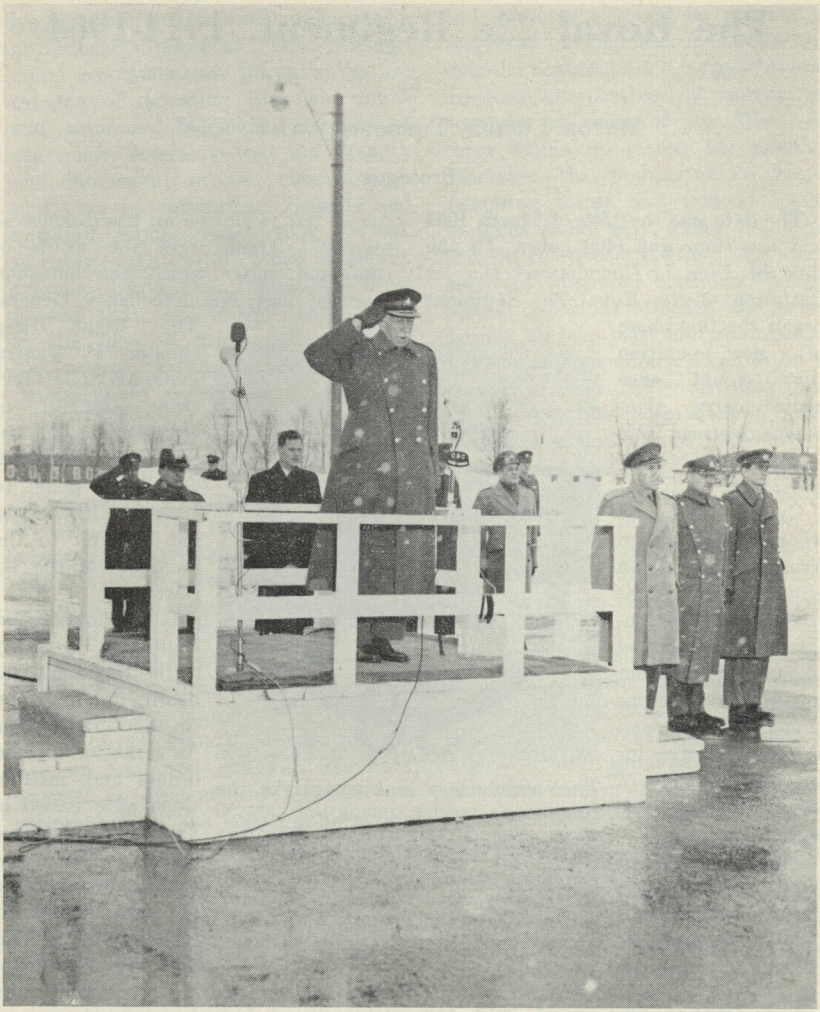


This anniversary emblem marks the Regiment's service during the past 50 years. The circle surmounted by the regimental badge links the blue 2nd Division patch of the First World War (centre) with the red 1st Division patch of the Second World War and the United Nation's badge.

It was not the first time that members of the Regiment had heard orders given to them in French. As a matter of fact, orders and instructions were issued in French to the members of the Regiment when they mounted the guard at Buckingham and St. James Palaces. Nor was it the first time General Vanier had witnessed a departure by members of the Regiment from Canada. He was himself a member of the ori-

**The author has served with the Royal 22e Régiment since 1943 and has seen action in Italy, North-West Europe and Korea. He has also served with the Canadian Infantry Brigade Group in Germany, and is now employed in the Directorate of Military Training at Canadian Forces Headquarters, Ottawa.*—Editor.

†*The regimental march and meaning, literally, "Of my Canadian girl I sing".*



His Excellency General the Right Hon. Georges P. Vanier, DSO, MC, CD, Governor General of Canada and Colonel of the Regiment, salutes as the 1st Battalion of the Royal 22e Régiment marches past on their departure for Cyprus last March.

ginal "22e bataillon" when it was formed in 1914.

R 22e R collar badge.

The Royal 22e Régiment this year is celebrating its 50th anniversary. This represents little time if it is compared with the existence of a country and it is equally short in the expected life of a regiment. But one must remember that over a period of half a century the "Vingt-deux", like other infantry regiments of the Canadian Army, have spent more than 18 years on active service outside Canada, ready for battle or in actual operations. Its existence has therefore been a full and lively one and its history one of action.

For the purpose of this article a few facts will be highlighted and a few dates will be mentioned.

The "Vingt-deux" have a regimental history, the second volume of which was published last summer. This history honours its heroes and like any other military history it gives Canadians a chance to get better acquainted with one of their regiments.

Nevertheless, the history of a regiment should not be transformed into a legend. Its members are far from being legendary. They are ordinary people who try to perform their duty to the best of their ability.

The First 25 Years

As a result of a request forwarded on 21 September 1914 to the Prime Minister of Canada, Sir Robert L. Borden, by Arthur Mignault and Lorenzo Prince, joint secretaries of a large committee of French-speaking citizens of Montreal, the 22nd (French-Canadian) Battalion was constituted for active service that year.

The training of the unit became the responsibility of its first Commanding Officer, Lieut.-Colonel F. M. Gaudet, a professional soldier and an engineer who had graduated from the Royal Military College of Canada.

In May 1915 the unit crossed the Atlantic and four months later went into action as part of the 2nd Canadian Infantry Division of the Canadian Corps in France until the Armistice was signed. The battalion then went to Germany as part of the occupation force. It came back to Canada and was disbanded in May 1919.

On 1st April 1920 the Regiment was reconstituted as the 22nd Regiment of the Permanent Active Militia. It was redesignated the Royal 22nd Régiment in June 1921 and the Royal 22e Régiment in June 1928.

The Regiment's cap badge.

The Citadel in Quebec City became the home station of the unit between the two world wars.

Its first Honorary Colonel was Marshal Foch, Commander-in-Chief of the Allied Armies in the First World War. The Royal 22e Régiment was particular-

ly honoured when His Majesty King George VI became its Colonel-in-Chief on 18 February 1938.

The Second 25 Years

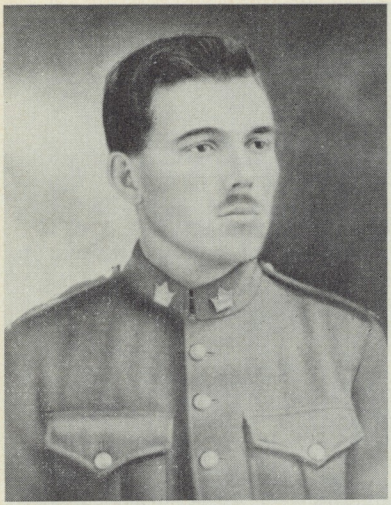
In December 1939, the Regiment proceeded to England. It became part of the 3rd Canadian Infantry Brigade and renewed acquaintances with the West Nova Scotia Regiment and the Carleton and York Regiment. All three units had fought together in the 2nd Canadian Infantry Division in the First World War.

During April 1940, the Royal 22e Régiment mounted guard at Buckingham Palace. It was the first time in the history of the palace that a regiment other than one from the British Army had mounted guard for a British Sovereign in residence.

The Sicilian, Italian Campaigns

After many months of training, many exercises and many moments of frustration, the 1st Canadian Infantry Division left the United Kingdom in June 1943 for an unknown destination. Every member of the Red Patch formation felt that the hour of battle was near. Gibraltar... rumours and speculations as to their exact mission start-

The 22nd (French-Canadian) Battalion (later the Royal 22e Régiment) crossing the Rhine at Bonn, Germany, in December 1918.



Cpl. Joseph Kaeble, VC, MM
First World War

Lt. Jean Brillant, VC, MC
First World War

National Gallery of Canada

The then 22nd (French-Canadian) Battalion goes over the top during trench fighting in the Neuville-Vitasse sector in France, 1918. This is a painting by Lieut. Alfred Bastien of the Belgian Army who was attached to the Canadian unit in that year, during which time he made a sketch from which this painting was done.

ed to circulate and were climaxed by the Sicilian campaign, followed by the Italian campaign. The unit reached Casa Berardi near Ortona where Captain Paul Triquet equalled the glory of two other members of the Regiment, Lieutenant Jean Brillant and Corporal Joseph Kaeble, both of whom had also won the Victoria Cross in 1918. An interesting fact is that these three originally came from points in the St. Lawrence River valley which are within a radius of 50 miles of each other.

Men of the Royal 22e Régiment are seen marching through the gates of Buckingham Palace to mount guard for the Royal Household on 17 April 1940. This was the first time in British history that a Commonwealth regiment, other than a regiment of the British Army, mounted guard at the Palace. Their Majesties King George VI and Queen Elizabeth may be seen watching the event from the first-floor balcony (right).

Brig. Paul Triquet, VC
Second World War

The private audience granted to the Regiment during the summer of 1944 in Vatican City by His Holiness Pope Pius XII during a rest period be-

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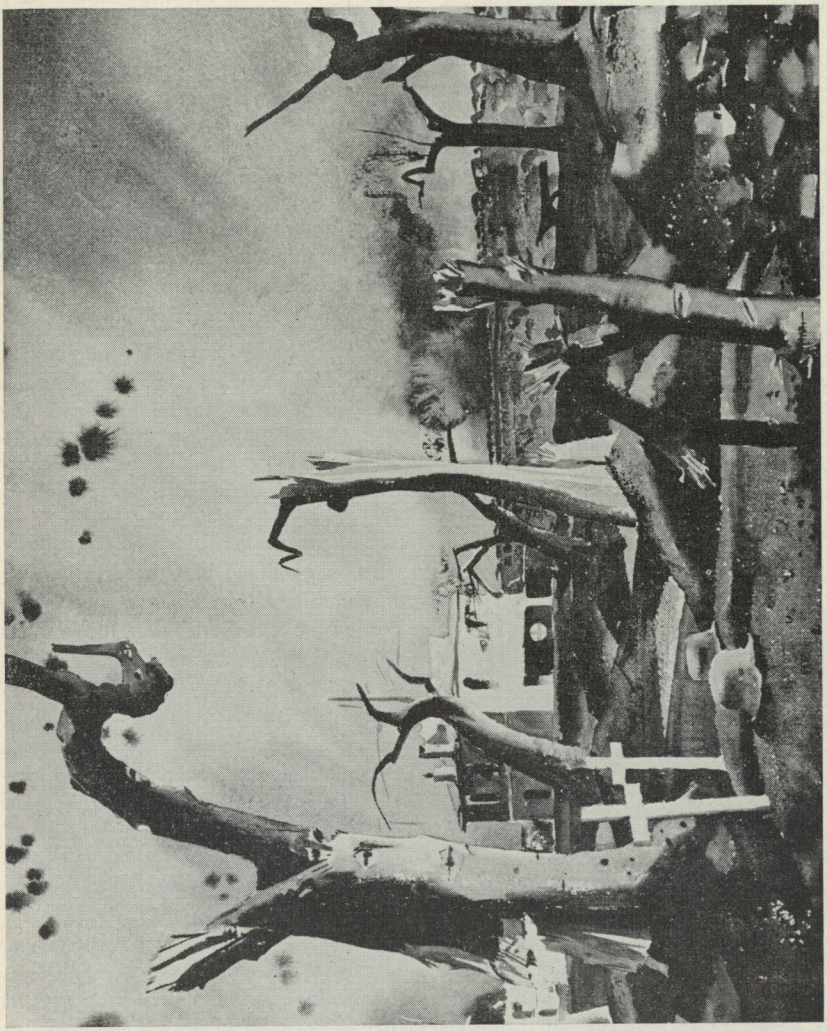
The Battle of Casa Berardi, Italy, December 1943. This is a painting by Major Charles Comfort, a Canadian Army War Artist during the Second World War and now Dr. Comfort, Director of the National Gallery of Canada. It was in this battle that Brigadier (then Captain) Paul Triquet won the first of three Victoria Crosses to be awarded in the Italian Campaign.



tween the crossing of the Hitler and Gothic lines gave to the members of the unit a different perspective as far as the Italian Campaign was concerned. They were also favourably impressed to hear the head of the Roman Catholic Church speak to them in their own language.

Operation Gold Flake took the First Canadian Corps away from Italy and brought it to the North-West Europe theatre with the rest of the 1st Canadian Army until VE Day.

The Canadian Army's Pacific Force had just started to concentrate in locations across Canada. The West Nova Scotia Regiment, Carleton and York Regiment and the R 22e R found themselves together again for a new venture that would have taken them to Japanese soil had the war not ended in the Pacific.

The "Vingt-deux" went back to the Citadel and to peacetime soldiering. The parachute gave training of the unit a new dimension when the unit became airborne in 1950. Members of the unit who had parachuted into France to become underground agents against the Nazis during the Second World War and who were on strength of the battalion at that time became unit instructors for potential candidates who were sent to the Canadian Joint Air Training Centre at Rivers, Manitoba, to qualify as parachutists.

The Regiment had 500 men in Rivers when the Red and Assiniboine Rivers flooded the City of Winnipeg in 1950. Whilst half of the battalion assisted the civil power in Winnipeg, the other half was called to help the communities of Rimouski and Cabano which were both being ravaged by the greatest fires in the history of these two Quebec centres. At the end of these emergencies the prospective parachutists returned to their harnesses to qualify for their wings.

The Campaign in Korea

When Communist North Korea invaded South Korea, United Nations' commitments took Canadian forces to that country. The Royal 22e Régiment was one of the units to serve there.

Chorwon, the Hans and Imjin Rivers, Yong Dong, Naechon, Point 355 — these are some of the names which became familiar to members of the 25th Canadian Infantry Brigade Group in Korea.

Growth of the Regiment

In September 1939 when the unit was mobilized for active service in the Second World War it had a total strength not much greater than that of the present rifle company of today.

From 1950 to 1954, together with their longtime comrades-in-arms, the Royal Canadian Regiment and the Princess Patricia's Canadian Light Infantry, three battalions of "Vingt-deux" rotated to the Far East to take part in the United Nations Operation — Korea.

Today, recruits for the three battalions get their training at the Regimental Depot which is now located at the Citadel in Quebec City. English and French are also taught there to members of the Canadian Army's Regular Force.

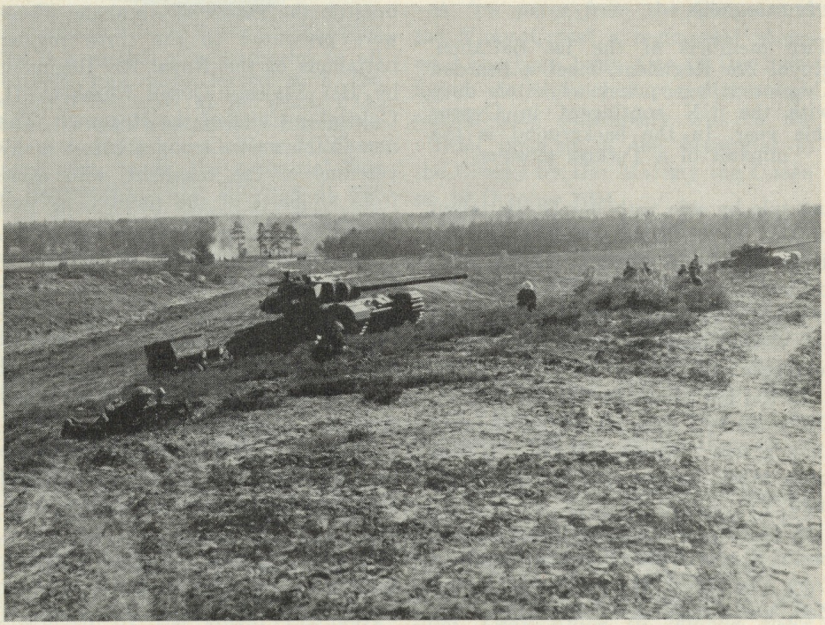
The roles of the First and Second Battalions are just about the same as the roles of other battalions of the infantry regiments of the Canadian Army (Regular). The third battalion has, however, a different role. It was converted in June this year to an anti-tank battalion: its main weapons will be the SS-11 and ENTAC anti-tank guided missles, and the 106-millimetre recoilless rifle.

In September 1954 Le Régiment de Chateauguay, Les Fusiliers du St Laurent and Le Régiment de St Hyacinthe became the 4th, 5th and 6th battalions of the Royal 22e Régiment of the Canadian Army (Militia). There are also a number of Cadet Corps affiliated with the Regiment. All are proudly wearing the beaver as their cap badge.

Service with NATO Forces

The operations in Korea had barely ended when a battalion of the R 22e R was on its way to take up a new assignment with the Canadian Infantry Brigade in Europe in Germany under the North Atlantic Treaty Organization.

For the first time in the history of its affiliation with a regiment of the British Army and by sheer coincidence, the battalion found itself serv-



A company of the Royal 22e Régiment participates in a Canadian Infantry Brigade Group exercise with "A" Squadron of the Royal Canadian Dragoons at Sennelager, Germany, in 1957.

UPI Photograph

Two members of the 1st Battalion, Royal 22e Régiment, meet a bearded Cypriot village priest while on duty with the UN contingent in Cyprus this year. In the background is the minaret of a Turkish mosque.

ing side by side with the 1st Battalion of the Royal Welsh Fusiliers in the Ruhr Valley. A distance of 10 miles between the two units did not prevent the many gatherings that followed and the development of more than excellent relations.

In the meantime, in Canada a Daily Order Part II was fabricated showing that a new "recruit", Batisse I, had been taken on strength of the Regiment.

A white goat, the traditional mascot of the Royal Welsh Fusiliers, obtained from the Royal Herd in the London Zoo, was presented to the Royal 22e Régiment in a ceremony on the Plains of Abraham at Quebec City in October 1955 by the then Governor General, His Excellency the Right Honorable Vincent Massey. The animal was selected with the permission of Her Majesty the Queen from the Royal Herd which originated with a pair of goats presented to Queen Victoria by the Shah of Persia. Overnight, Batisse became one of the most popular, photographed and talked about beings in Quebec City. This faithful mascot has since died and has been succeeded by Batisse II who has started his "recruit training".

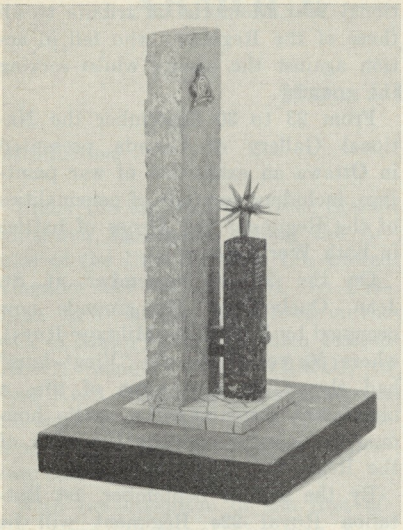
Her Majesty Presents Colours

On 23 June 1959, Most Reverend Maurice Roy, Archbishop of Quebec, consecrated the Regiment's new Colours on the Plains of Abraham. These were presented to the three regular battalions of the Royal 22e Régiment by Her Majesty Queen Elizabeth II, Colonel-in-Chief of the Regiment. The new Colours were trooped before many veterans of the regiment, who came from all parts of the country, as well as military and civilian guests.

The Queen's presentation of the new Colours and her address to the Regiment in French will long be remembered. The ceremony which opened with "God Save the Queen" ended with troops firing a *feu de joie* and singing "O Canada".

On 24 June 1959 the old Colours were placed in the chapel of the Citadel and entrusted to the care of the unit chaplain.

New faces, new weapons and new techniques are always in the fore at the Citadel, the permanent home of the Regiment where the Quebec Conferences of August 1943 and September 1944 were held. Relics, ancient doc-



This is a model of a memorial to all members who have served with the Regiment. Situated at St. Jean, P.Q., where the unit was initially formed in 1914 and where the Collège Militaire Royal now stands, the memorial lists the Regiment's Battle Honours. It was to be unveiled in September this year by His Excellency the Governor General, Colonel of the Regiment.

uments and war trophies, which go to make up a regiment's wealth, are collected for the small regimental museum, which has been operated since 1 October 1959 as a regular Institute of the Canadian Army (Regular).

In the Officers' Mess there is a dining room table designed and built by cabinetmakers of the Quebec Provincial School of furniture. The wood is red oak and came from beams belonging to a renovated building originally constructed by the Royal Engineers during their service in Canada more than 150 years ago. A large copper regimental crest is embedded in the centre of the table. Many dinners are served at this table where guests of the regiment are able to taste our *cuisine canadienne* so proudly prepared by our *cordon bleu* and join in with the singing of the many regimental and folklore songs led by the regimental *boute-en-train.*

The building in which the Sergeants' Mess is located was renovated in 1950 from ruins of an old redoubt called Jebbs. The architectural design of the interior of this building retains the simple style of the fortress which overlooks the majestic St. Lawrence River.

The Memorial

A few paces from the Chapel and the Vimy Cross* a regimental Memorial has been built. One of the highlights of the celebration of the regiment's 50th anniversary will be the official opening of the Memorial at the Citadel by Her Majesty the Queen on 10 October 1964.

The Memorial consists of a Hall of Remembrance housing the old colours of the regiment and a Book of Remembrance containing the names of all members of the Regiment killed in action during the First and Second World Wars and the Korean Campaign. The walls of this hall will be decorated with the Battle Honours of

**This humble cross was originally erected to the memory of those of the 2nd Canadian Infantry Division and of the 13th Infantry Brigade who fell in the Capture of the Vimy Ridge on 9 April 1917. It was removed in 1923 from Vimy Ridge to provide space for the erection of an impressive monument. This relic has since been kept at the Citadel and committed to the care of the Regiment.*

the Regiment inscribed in bronze letters; a flame will be kept burning in perpetuity. Twenty-two stained glass windows will complete the mural decoration, and each window will depict the badge of a French-Canadian regiment which contributed reinforcements to the Royal 22e Régiment at the time of its formation or since 1914. The names of the Regiments whose badges appear in the windows will be engraved on the stone walls just over the badge.

The golden anniversary of the Regiment is being marked by various events. Any serving member or veteran of the "Vingt-deux" is bound to be called upon to participate somehow in these celebrations.

To honour the three Victoria Cross winners, three mountains over-looking Camp Valcartier, the local training ground of the Regiment, were renamed Mont Kaeble, Mont Brillant and Mont Triquet on 15 July 1964.

On 9 August 1964 at Casa Berardi, Italy, a plaque in memory of these who had fought there was unveiled in the presence of veterans of the unit who had flown there for the ceremony.

In Ottawa on the 23 September, the Colonel of the Regiment, General Vanier, was to place a wreath at the National War Memorial in tribute to all those of the Regiment who fell in action against the enemy whilst serving the country.

From 23 to 30 September the National Gallery of Canada presented in Ottawa an exhibition of war paintings, including portraits of personalities of the Regiment and scenes of battles in both World Wars.

On the 26 of September at St. Jean, Quebec, on the grounds now occupied by Le Collège Militaire Royal, where 50 years ago the "Vingt-deux" had shown its first signs of life, a monument displaying the battle honours and commemorating the birth of the Regiment will be unveiled.

By the end of September, 1st Battalion Royal 22e Régiment will be once again scheduled to set foot at Camp Valcartier with the other two battalions of the Regiment, having completed a tour of duty as the Canadian battalion of the United Nations peace-keeping force in Cyprus.

Men and regimental Colours alike are raised; they shine brightly for a time and then they fade away, but the spirit that animates the Regiment lives on forever through undying traditions.

The Profession of Arms

The profession of arms is an essential social institution offering an orderly way of life, set a little apart, not without elegance. "The performance of public duty is not the whole of what makes a good life," said Bertrand Russell, in language that would have pleased Cicero; "there is also the pursuit of private excellence." Both are to be found in the military life. It gives much and takes more, enriching freely anyone prepared to give more than he gets. It will remain with us for as long as man continues to be what he is, too clever and not good enough. This looks like a long time yet. — *Lieut.-General Sir John Winthrop Hackett, British Army, in "The Profession of Arms".*

A CANADIAN LIAISON OFFICER: ARMOUR — FORT KNOX

by

MAJOR J. HARTE, CD*

Introduction

Under the terms of the Basic Standardization Agreement among the Armies of the United States, the United Kingdom and Canada, 1954, the Canadian Army assigns an officer in the rank of Major as the Canadian Liaison Officer, Armour, (CLO ARMD), to Fort Knox, Kentucky. The author is the sixth such officer to serve in this appointment for the normal three-year tour.

With the exception of the first officer from the Royal Canadian Electrical and Mechanical Engineers, all CLOs are from the Royal Canadian Armoured Corps and to the fortunate officer selected for this assignment, it is considered one of the better postings where a Canadian officer sees plenty of new equipments and can discuss new trends, organizations, tactics, training, etc., all with an armour flavour. In the opinion of the writer this is such an interesting appointment that it merits some elaboration, and to this end this article is designed to present some of the living and working conditions of the CLO ARMD at the United States "Home of Armour" at Fort Knox.

Fort Knox is located 35 miles south of Louisville, the site of the Kentucky Derby. The daytime population is approximately 60,000, making it one of the most heavily populated Army posts in the country. It has an area of 13 by 16 miles and contains 110,300 acres. There are 127 training areas and 60 firing ranges, accommodating weapons ranging in size from the pistol to the main armament on a tank. Of the many organizations located at Fort Knox, those of constant interest are the U.S. Army Armour Centre, U.S. Army Armour Board, U.S. Army Combat Developments Command Armour Agency and the U.S. Army Armour School.

To those not dedicated to the regency of armour, but to the mundane importance of the financial resources of the United States, the Gold Vault is also located at Fort Knox. It is reported to hold 12½ billion dollars in gold bars worth $14,000 each. The bar, about the size of a house brick, weighs nearly 27½ pounds. A policy of "no visitors" is rigidly enforced.

Generally, the tasks of the CLO consist of following and reporting upon U.S. Army armour equipment developments, tactics and training. These reports may be formal, e.g., policy from a higher headquarters or informal, e.g., current thinking at lower levels of command; also, the CLO will, whenever practicable and appropriate, participate in discussions pertaining to these subjects. Specifically, the ap-

**A member of the Royal Canadian Dragoons, the author has been at Fort Knox, Kentucky, since July 1963. Immediately prior to this posting he held various staff appointments in the Directorate of Armour at Canadian Forces Headquarters, Ottawa.* — Editor.

pointee is required to follow:

1. U.S. Army developments in armoured equipments, engineer equipments of the field army, artillery automotive equipment and general service wheeled vehicles.

2. The development of U.S. Army tactical and logistical doctrine, organization, methods of training and training equipment for armoured forces.

3. Training courses, both current and planned; and assistance to Canadian candidates on course.

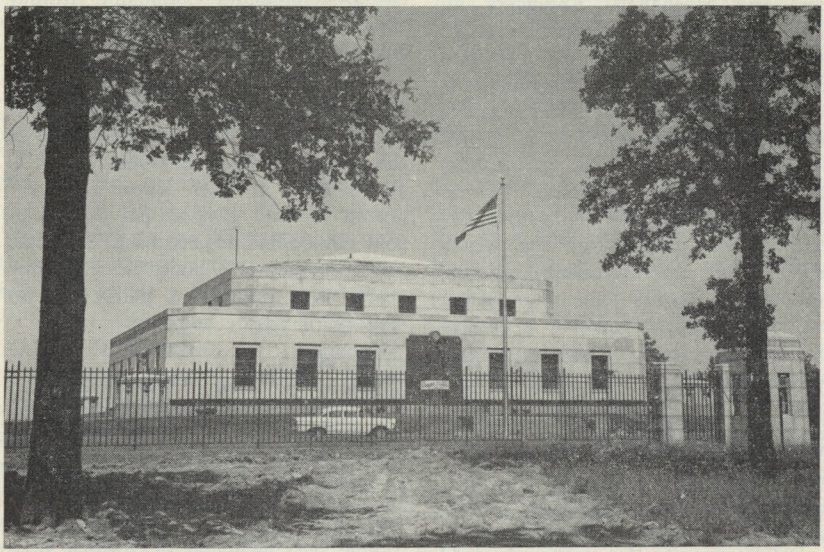
To perform these tasks necessitates accreditation from a variety of functional commands:

1. To follow equipment developments at the Armour Board requires accreditation from Test and Evaluation Command (USATECOM).

2. To follow combat developments at the Armour Agency requires accreditation from Combat Developments Command (USACDC).

3. To follow training matters requires accreditation from Continental Army Command (CONARC).

This in effect means that the Commanding General, Armour Centre, Fort Knox, does not have functional control over, for example, the Armour Board or the Armour Agency. Requests to visit these units require authority from their respective commands. However, a visit to the Armour Centre, School or Training Centre is usually channeled through and acted upon by the Armour Centre staff. This is a point worthwhile remembering. It should be emphasized, however, that despite the



U.S. Army Photograph

The United States bullion depository at Fort Knox — the Gold Vault. It is reported to hold 12½ billion dollars in gold bars worth $14,000 each.

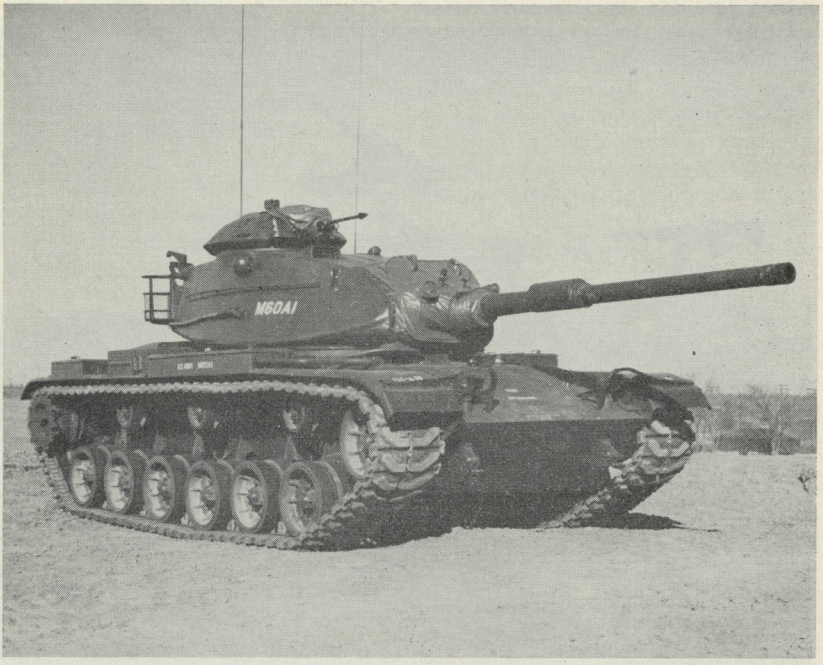
various commands involved, all Fort Knox Armour Units consult with one another to present the armour position on any given matter.

To do his job properly, the CLO must spend the most time where items of importance are happening. This requires flexible routine, one that will allow a visit to all primary units at frequent intervals. For instance, a workable routine is weekly visits from the Armour Board to the Armour Agency and Armour School; bi-monthly to the Armour Human Research Unit and Armour Centre and a monthly visit to the Army Maintenance Board.

As equipment development commands most interest and generates most correspondence, the CLO is permanently located at the U.S. Army Armour Board with the British Liaison Officer, the U.S. Marine Corps Liaison Officer and the Army Tank Automotive Centre (ATAC) Liaison Officer.

The Armour Board

The Armour Board is a sub-unit of USATECOM and is commanded by a Colonel whose appointment is Presi-



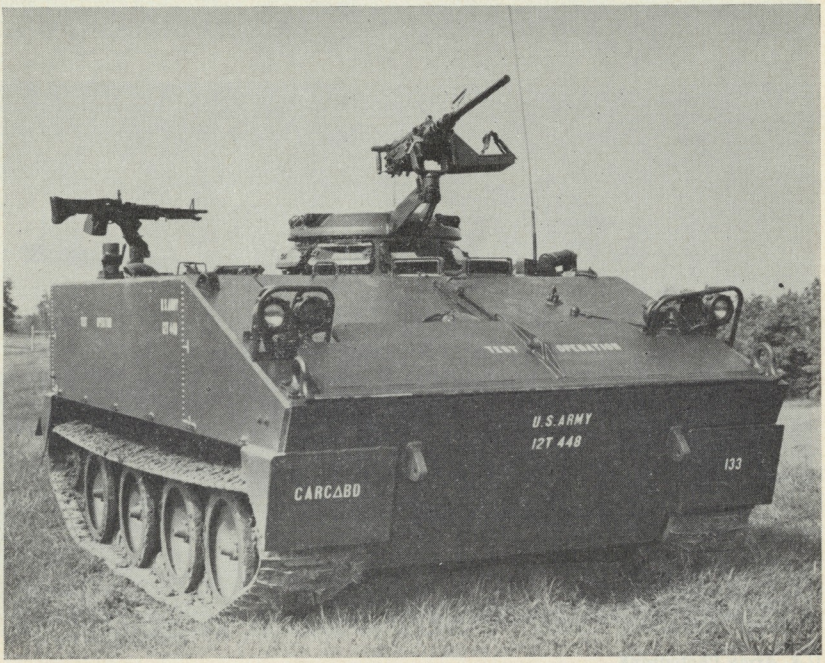
U.S. Army Photograph

The main battle tank of the U.S. Army — the M60A1.

dent. The mission of the Board is to plan and conduct, or participate in various tests and evaluations on armour and engineer items of material, and automotive systems and material (except for specified engineer, quartermaster and transportation items). This includes the responsibility to assist in the review of Qualitative Material Requirements, training literature and training aids, and make recommendations on type classification of material tested.

Officer personnel assigned to the Board are not necessarily from the armoured corps: the engineers, infantry, artillery and ordnance corps are also on the establishment. The project officers are a young group, 25-35, with four to five years of field experience and holding at least a Bachelor's degree — maybe a Master's — in engineering. In the interest of continuity, some of the project officers are civilians and the equipment testing secretarial work is performed by civilians, many of them ex-officers with 15-20 years' service.

The field testing areas are adequate and cover a variety of terrain necessary for testing. Water testing sites include lakes and rivers, the main one being the Ohio River.



U.S. Army Photograph

The M114 — a scout vehicle which is one of those tested at Fort Knox.

When one analyzes the various types of equipments tested by the Board, one must consider the validity of the name "The Armour Board". All the main items of equipment received for tests are allocated to one of three divisions — Combat Vehicle, Engineer or General Test. From the armour viewpoint the principle division is Combat Vehicle. Its mission is to test and evaluate tracked vehicles, including tanks and other combat vehicles designed primarily to provide mobile firepower; weapons, ammunition, fire control, and accessories associated therewith.

Some testing, chiefly product improvement tests, is always underway on the current main battle tank (M60A1). This means trying out a new track, engine component, ammunition, radios, sighting devices, new kits (i.e., fording, etc.,) to improve the current item. In addition, new component designs for current and future tanks are frequently under test. In addition to tanks, tests of one form or another are usually being conducted on scout vehicles, M114, and a newcomer called the Sheridan, a fighting reconnaissance vehicle.

The mission of the General Test Division is to test/evaluate general and special purpose wheeled and track vehicles, kits and other related equipment. Examples of items tested were the M113A1 and Rolling Liquid Transporter. Now undergoing tests are a range of wheeled vehicles from the one-quarter ton to 20-ton class, including GOERs. A Canadian vehicle due for testing is the XM571 carrier.

One of the chief test agencies for engineer equipment in the U.S. Army is the Engineer Division of the U.S. Army Armour Board. Its mission is to conduct evaluations, service tests, and confirmatory tests on that equipment and material which is used primarily by engineer units irrespective of developing agency; and to recommend suitability of equipment for type classification, further development, or rejection.

In addition to testing the usual engineer equipments — i.e., Mobile Floating Assault Bridge-Ferry, generators, combat engineer vehicles, tractors, etc. — tests are also conducted on many items that are common to all arms in the pioneer and radiological fields. Examples are anti-tank mines, mine fuzes, demolition kits, explosives, mine detectors, stereoscopes, survey equipment, portable survey radiac meter, etc. Naturally, the majority of personnel in this division are from the Corps of Engineers; however, there is usually infantry representation in the pioneer division and armour representation in the combat engineer vehicle field.

The CLO is accepted and recognized as a *bona fide* member of the U.S. Army Armour Board and actively participates in social, sporting and ceremonial functions. The Board also offers every assistance to the CLO in performance of his tasks. On Monday mornings the Board President conducts a meeting/discussion to which Liaison Officers are invited and at which all division chiefs mention equipment testing highlights for the forthcoming week. This meeting is also used for general discussion on tests, an exchange of ideas and queries on tests. The latter are usually the result of free access by the CLO to the Pres-

ident's floater file of correspondence.

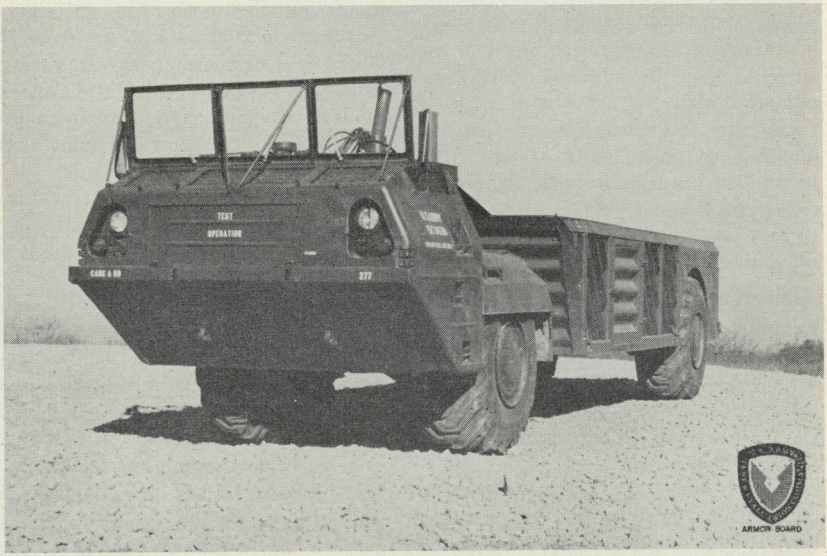
In addition to this assistance, the CLO makes it a point to visit the divisions and in particular discuss specific areas of interest directly with the project officers. Invitations are always extended to view the equipments under test in the field and in this regard the CLO is usually in the field at least weekly to witness firing/driving tests, and sometimes this involves actual participation by the CLO. During discussions with project officers there is a free exchange of views and opinions.

There are also many occasions when the CLO is asked to a meeting as an observer, particularly when a proposed item of equipment is under discussion with other armour units, i.e. CDC Armour Agency or the Armour School.

To sum up, the CLO could be gainfully employed reporting upon equipment items only. The Board provides every assistance, it has the hardware, an interesting staff and a congenial atmosphere. To perform his task the CLO must, however, leave such a fine environment on a weekly basis for visits to the Armour Agency and the Armour School.

U.S. Army Combat Developments Command Armour Agency

The mission of the U.S. Army Combat Developments Command Armour Agency is to determine how Armour should fight, be equipped, and organized; to include tank units, armoured



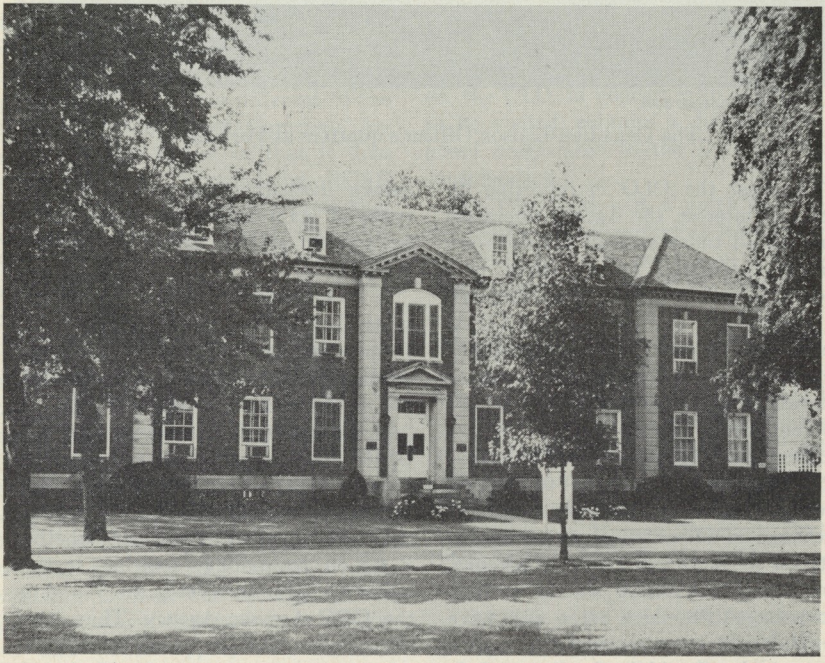
U.S. Army Photograph

Another wheeled vehicle which is undergoing test operations — the GOER. This one is in the 16-ton class.

cavalry units, air cavalry units and brigades of an armoured division.

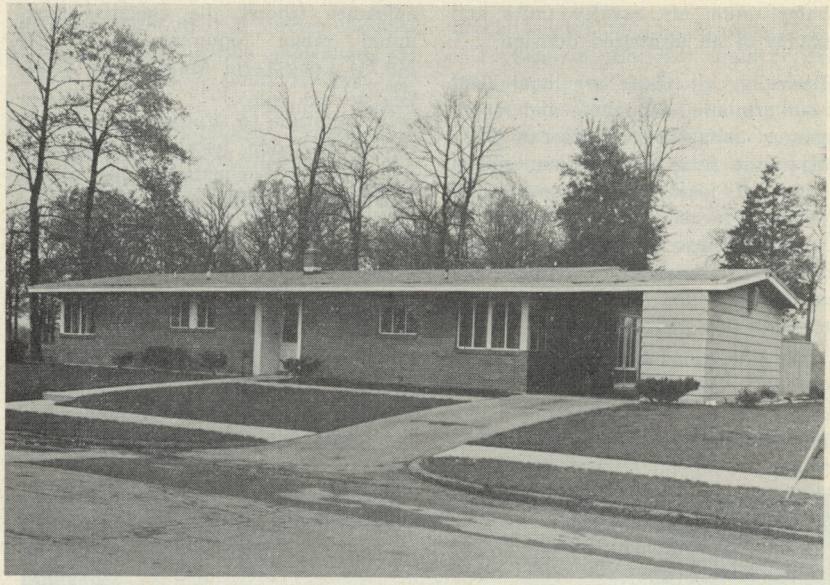
Basically, all these are equivalent to our armoured regiments and reconnaissance units. This in effect is a key unit in the future of Armour, and it utilizes all local armour sources of experience in meeting its mission. It is organized into three main divisions — Plans, Material, and Doctrinal Organization. Some of the work conducted at this Agency includes studies of Night Operations and the Employment of Night Vision Devices, Vehicular Inland Water Crossing Capability, new organizations for the reconnaissance troops, the essential maximum range requirements for the NATO Long-Term Main Battle Tank, etc.

In addition to studies, project officers for troop tests of equipments are provided. For instance, this Agency provided the officer who coordinated details for the troop test of the NAVAID trials conducted in California, Alaska and Germany. Attendance at numerous conferences, displays and discussions on matters pertaining to the future of Armour is also a requirement of this Agency. Considering its scope of interest, one can appreciate the amount of correspondence handled.



U.S. Army Photograph

The post or camp headquarters at Fort Knox.



U.S. Army Photograph

The Canadian Liaison Officer's quarters at Fort Knox.

To assist the CLO in reporting on items of interest, the Agency doors are open at all times and all divisions are readily accessible. As a routine procedure, a call at the Central Registry is encouraged and here the CLO is permitted to read the most recent correspondence on matters that are of interest in the Armour Combat Development world.

After gleaning the desired information from papers, a visit to various project officers is warranted for an exchange of ideas on items of mutual interest to both countries. For instance, how many NAVAIDs should a recce troop have? Should a recce unit have an underwater recce capability? How many tanks should be in a troop? Is there a requirement for a multi-barrel smoke discharger on a tank? What types of main tank gun rounds should be carried in the tank and in what numbers?

It is emphasized during discussions, particularly with project officers, that views expressed are either personal, or Agency, and this must also be stated should it be the source for a report emanating from the office of the CLO.

In summary it is fair to state that the most interesing areas for discussion and reports on armour, whether it be on philosophy, doctrine, tactics, history, equipments, etc., are found in the CDC Armour Agency. They have the people with time to think, adequate resources, personnel with imagination and foresight and perhaps a

crystal ball in one of the filing cabinets. The CLO could gather a wealth of information from this Agency covering many aspects of armour and mechanized war. The criteria here is to cull and report upon only those items of direct interest to Canada in the armour field of combat developments.

U.S. Army Armour School

The U.S. Army Armour School is commanded by a Major-General, who is also the Commanding General of the U.S. Army Armour Centre, Fort Knox. He is assisted in his role as School Commandant by an assistant, a Brigadier-General. Briefly, the mission of the School is to train armour officers, supervisory armour maintenance personnel, and armour repair personnel. This is quite different to the practice at the Royal Canadian Armoured Corps School in that it does not teach basic or specialist RCAC training but it does teach courses that are taught at the Royal Canadian School of Signals and the Royal Canadian Electrical and Mechanical Engineering School.

Its main instructional departments are automotive, weapons, communications, and command and staff. This is similar to our School organization and it is with the latter department that the CLO does most business at it deals with command, control and tactics. Particular attention is paid to recce training and the employment of surveillance devices. Use of training aids in the various departments is observed and where appropriate, reported upon. In this respect an expensive and enlarged model of a tank troop tactics trainer is utilized by the command and staff department. This is used in tank and recce training as an interim step between classroom and field training.

To conclude, where training and training aids are involved, the School is the best source and warrants a weekly visit.

U.S. Army Armour Centre

This is the camp or post headquarters and is commanded by a Major-General, who is also Commandant of the School. The usual staff is provided and the section of main interest to the CLO is the Visitors and Foreign Liaison Division. All requests for visits are handled through this office. When a visit request is received, the CLO, in concert with the units to be visited, submits a detailed proposed programme to the Division for consideration.

The CLO makes it a point to visit the Centre Headquarters at least twice a month to keep abreast of current camp happenings and staff changes.

Other Units

In addition to the aforementioned organizations, there are many others to which the CLO is accredited and amongst these are: U.S. Army Training Centre, Armour (USATCA), U.S. Army Armour Human Research Unit (HumRRO) and U.S. Army Maintenance Board.

USATCA is the basic training centre that graduates more than 90,000 students annually. It gives all soldiers an eight-week basic course and to those

selected for the armoured corps an additional eight weeks in tank crewman training. Specialist training for other corps is also conducted.

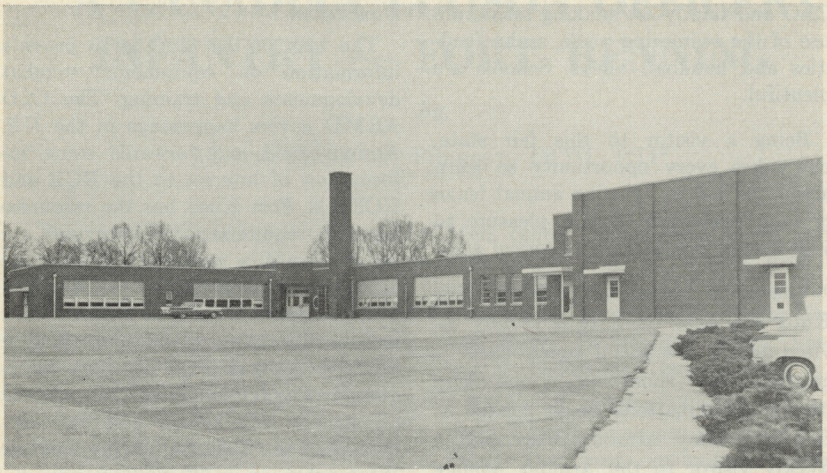
HumRRO conducts experiments to determine ways and means by which training procedures can be improved. This organization created the Tank Troop Tactics Trainer, is now experimenting with a Recce Troop Tactics Trainer, produced the Tank Crew Readiness Checks and is working on Recce Troop Readiness Checks.

The Maintenance Board conducts studies and research directed at the improvement of Army policies on various levels of maintenance and repair, and spare parts holdings. The activities of this unit are of primary concern to RCEME who maintain personal contact through occasional visits.

It will be readily seen that in addition to armour activities, Fort Knox is an area of interest to the Corps of Royal Canadian Engineers through testing at the Engineer Division of the U.S. Army Armour Board; to the RCEME through the activities of the U.S. Army Maintenance Board; and to our Defence Research Board through the U.S. Army Armour Human Research Unit, and a unit not previously mentioned, the U.S. Army Medical Research Laboratory. So

U.S. Army Photograph

An aerial view of the Ireland Army Hospital.



U.S. Army Photograph

A view of a Fort Knox dependant's grade school.

much for the working activities: what about the living conditions?

Living Conditions

The author is married and has two boys aged 12 and 10 years. We have lived here for close to one year. How do we like it?

The married quarters allocated to the CLO are second to none. It is a three-bedroom bungalow, two bathrooms, beautiful setting alongside the golf course, and adjacent to a swimming pool. The living room is a good size and can accommodate a social function for a group of 40 people. The grounds are ideal for gardening, barbecues and pitching tents.

The bulk of dinners in the summer are prepared on the barbecue and served on the patio. This routine is not a novelty: it is normal for the summer months to take advantage of the "cool" of the evening. Rain doesn't ruin a barbecue as the breezeway is adjacent to the patio.

Fort Knox provides good shopping facilities in its Post Exchange (PX) and Commissary, and the local towns have an abundance of stores. A Saturday trip into Louisville, on the basis of twice per month, widens the selection. Many of the U.S. department stores maintain fair-sized branches in this city of approximately 400,000.

A historical note on Louisville: the site was first explored by a Canadian, Marquis LaSalle, who started many of his explorations from the vicinity of Ville LaSalle, in Montreal.

Worthy of mention are the hospital facilities provided by the Ireland Army Hospital, which has a 500-bed capacity.

Sport facilities are excellent; hunting, fishing, golfing (two courses), riding, scuba diving, handball alleys, etc., to mention a few, are available. The

CLO and family are making maximum use of the swimming pools, scuba facilities and handball alleys. Schools are plentiful.

Being a visitor to this fair state, one takes every opportunity to learn about its history. During annual leave or long week-ends, it is a pleasure to visit one of Kentucky's historical sites.

The social life for the CLO in Fort Knox is a busy one. He is usually invited to all the social functions of a general nature sponsored by the camp or post headquarters. Being located at the U.S. Army Armour Board and a weekly visitor to the Armour Agency and Armour School means invitations to their respective social functions.

Conclusion

The task of the CLO is to provide information on equipments, combat developments and training. The CLO ARMD covers happenings in the U.S. Armour field and forwards some information of interest to the RCE and RCEME. Fort Knox has the resources for this requirement; it provides excellent facilities and the various units offer every assistance to the CLO in the performance of his duties. Such resources and environment can readily produce copious quantities of information. The fruits of the CLO ARMD efforts are reflected in a report submitted to the Canadian Army Staff in Washington on a quarterly basis.

It is a posting long to be remembered.

The Spanish Armed Forces

Spain has a regular Army, which comprises all the armed forces, amounting to some 150,000 men.

In peacetime this number is distributed in the following way:

Army: A total of four divisions, plus the overseas forces, which make up about three divisions.

Navy: Two cruisers, a flotilla of destroyers, three flotillas of escort vessels, an amphibian group, gunboats and other auxiliary craft.

Air: Five fighter squadrons, six bomber squadrons, six transport squadrons.

In general mobilization, the Spanish armed forces could muster, approximately:

Army: About 40 divisions with a complement of specialist units, into three theatres of peninsular warfare; its troops and services; with the adjunct of munitions, supplies and liaison units.

Navy: The aforesaid ships, with a possible increase of 50% in the units of the fleet, and double the number of auxiliary craft.

Air: The Air Force could be doubled both in personnel and aircraft, up to 150% of its peacetime strength, in the same way as the Army. — *From an article "Spain and NATO" by Lieut.-General Don Angel Gonzales de Mendoza y Dorvier in the publication NATO's Fifteen Nations (April-May 1964).*

A CANADIAN LIAISON OFFICER: INFANTRY — FORT BENNING

by

MAJOR COLIN G. FORREST, DCM, CD*

The aim of this article is to provide an idea of the scope of the duties and life of a Canadian Liaison Officer (CLO) at a major United States Army installation. There are 25 CLOs in the United States and the different conditions of living and working encountered on each post would probably result in as many approaches to the subject as there are CLOs. This article, therefore, is written from the standpoint of the CLO at Fort Benning, Georgia—"The Home of the United States Infantry".

Fort Benning

Fort Benning was founded on 7 October 1918 as a consolidation of three Infantry Schools then operating in widely separated locations. Probably not even the most fart-sighted individual could foretell the Fort Benning of today—an installation which has been called "the world's most complete Army post". The post itself is named in honour of a distinguished Confederate Army officer, Major General Henry L. Benning, whose home was in Columbus, Georgia.

From an original tented encampment, Fort Benning has expanded until today the post encompasses some 182,000 acres, or 286 square miles, mostly in Georgia, partly in Alabama. There are more than 6200 buildings and facilities which could support a military population in excess of 60,000. At present there are approximately 45,000 troops (two divisions, Centre troops and tenant units) stationed here and some 11,000 dependents live on post. In addition to Fort Benning proper, The Infantry School maintains a mountain training camp at Dadlonega in northern Georgia and a jungle training centre at Eglin Air Force Base in Florida.

U.S. Army Infantry Centre

On 1 November 1949 all Third U.S. Army units and activities at Fort Benning were gathered under one command to form the U.S. Army Infantry Centre (USAIC). This reorganization consolidated two jobs—that of the Commanding General of the Post and that of Commandant of The Infantry School.

**A member of The Black Watch (Royal Highland Regiment) of Canada (RHC), the author has been an infantryman since 1939 and served in Italy and North-West Europe in the Second World War. He attended the Australian Staff College in 1954, served as a U.N. observer in Palestine in 1956/57, and was Battle Adjutant of 1 RHC in Germany from 1959 to 1961. In 1962/63 he attended the Command and General Staff College at Fort Leavenworth, Kansas, and was appointed Canadian Liaison Officer at Fort Benning in July 1963.* — Editor.

The military complex which is the U.S. Army Infantry Centre embraces the following major units:

1. USAIC Troop Command.
2. United States Army Infantry School (USAIS).
3. 11th Air Assault Division (Test).
4. 197th Infantry Brigade (School troops).
5. Lawson Army Aviation Command.
6. 2nd Infantry Division.
7. United States Army Infantry Board (USAIB).

U.S. Army Photograph

The Infantryman Statue at Fort Benning.

8. United States Army Combat Developments Command Infantry Agency (USACDCIA).
9. United States Army Infantry Human Research Unit (HumRRO).

The 2nd Infantry Division, USAIB, USACDCIA and HumRRO are tenant units and are not under command of The Infantry Centre.

During the course of one year Fort Benning can expect upwards of 20,000 official U.S. visitors and about 800 visitors from Allied countries. The Infantry School alone trains between 700 and 800 Allied students yearly from as many as 45 different nations.

But how does the CLO fit into all this?

Accreditation, Terms of Reference

The CLO is accredited to:

1. USAIB—through U.S. Army Test & Evaluation Command.
2. USACDCIA—through U.S. Army Combat Developments Command.
3. USAIS—through U.S. Army Continental Army Command.

The CLO must be prepared to discuss and exchange information in the following fields: tactical doctrine, organization, logistics, training, and future concepts, as well as feasibility studies, development, testing, and type classification of matériel. But accreditation of itself is not enough. A minimum security clearance of SECRET is required by the CLO because many of the things in which he will be interested will bear this classification. Contrary to popular opinion, there is really more than enough to do. In fact, one must make continual time and space appreciations in view of the many and varied activities taking place on post. Generally speaking, about 60 per cent of the working day is spent on Board projects, 20 per cent on Infantry Agency projects, and the rest with the various other units in The Infantry Centre. To better understand why the time is divided in this fashion, one should take a closer look at the units concerned.

U.S. Army Photograph

United States Army Infantry Board personnel test-firing the M67, a 90-mm. recoilless rifle.

United States Army Infantry Board

Traditionally, the CLO has been based at the Board. This has been true since the first CLO arrived at Benning in 1947.

Put in simplest terms, the Board deals with "hardware". It plans and conducts service tests, integrated engineering service tests, check tests and confirmatory tests on infantry equipment. Additional responsibilities include: participating in and monitoring troop tests as directed, and effecting liaison and coordination with The Infantry School and The Infantry Agency.

Specific areas of responsibility allotted to the Board are:

1. Equipment and ancillary items to be used by infantry units for firepower, target acquisition, ground surveillance, fire control and ground mobility.

2. Field type clothing, equipment, and rations for individuals and small units.

3. Anti-personnel mines and related equipment.

4. CW-BW equipment for individuals and small units.

U.S. Army Photograph

Testing the Hispano Suiza 20-mm. machine-gun mounted on the M114.

5. Airborne testing of clothing and equipment that will be worn or carried by individual parachutists while jumping from aircraft.

In basic terms, it is the Board's responsibility to see to it that weapons and equipment are compatible with the man. This compatibility is in keeping with the Department of Army's aim "to equip the man, not man the equipment".

The motto of the Board is "Only the Best for the Finest", and they really work toward this goal. No one, from the President of the Board down to the most junior project officer, ever loses sight of this very real aim and if a thing proves not good enough for the Infantry they say so—and in words of one syllable. Whether the Infantryman fires it, carries it, or wears it, the Board plays a significant part in its development.

U.S. Army Combat Development Command Infantry Agency

The Infantry Agency are the "crystal ball gazers". They formulate and document doctrine and future concepts for Infantry (including mechanized, airborne and air assault Infantry) units at brigade level and below, and airmobile operations below division level,

both for Continental United States and overseas operations in various time frames. In other words, the Infantry Agency is engaged in continual reappraisal of the primary question, "How will the Infantry fight, now and in the future?"

The Infantry Agency was organized in Fort Benning as part of Combat Developments Command in July 1962, and the CLO maintains an office at this Agency as well as at the Board.

U.S. Army Infantry School

The Infantry School is gigantic and so it must be to handle the tremendous number of students that attend courses during the year. For example, the USAIS have the following courses programmed for 1964:

Number of Courses . . .	19
Number of Classes. . . .	151
Total Students	32,610
Average Daily Attendance.	5,870

In addition to the normal instructional departments one would expect to find at The Infantry School, there is the Airborne Department (20,000 students yearly) and the Ranger Department (1700 students yearly). Every regular U.S. Army officer must qualify as either a Ranger or Parachutist;

U.S. Army Photograph

Infantrymen training with the one-shot portable flame-thrower.

most do both. After the Ranger Course, parachuting seems easy.

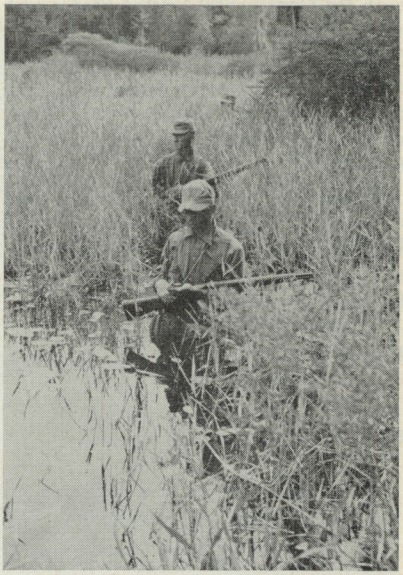
A new Infantry School building has been completed at Fort Benning, at a cost of more than 10 million dollars, and is designed to house most of the School's faculty and student body. There are general purpose classrooms (50- and 200-man capacity), night vision classrooms, communication and maintenance classrooms, and an auditorium that can seat 1500. The total student capacity is about 4200. The building is fitted with a closed circuit television network; each classroom can be included in the network which is capable of transmitting to all or selected combinations of classrooms.

Establishing the Infantry Position

A close mutual coordination policy exists between The Infantry School, The Infantry Board and The Infantry Agency. Virtually every project, test or study reflects a common Infantry position. For example, the Board and the School see every study prepared by the Agency and are invited to comment. On major studies, the study group is composed of Infantrymen from every major unit located in Fort Benning. Therefore, when the Commanding General of The Infantry Centre speaks as "Mister Infantry" he does so with the full backing of all three elements.

Operating Procedures for the CLO

One thing is sure—there is no Standard Operating Procedure. Every CLO must adapt himself to conditions on the post at which he is stationed and



U.S. Army Photograph

Members of the U.S. Army Infantry School's Ranger Department at Fort Benning move carefully through Florida swamps in a simulated combat patrol.

in line with his specific areas of interest.

Before proceeding to his new appointment, the CLO designate is shunted around Army Headquarters on a briefing session. He sees many clever people in many Directorates and comes away with a thick dossier of things in which they are interested. Many abbreviations are bandied about, like TOW, QMDO, SPIW, TIARA, VRF-WS, SDR and so on. He doesn't know what they mean and is ashamed to admit it. But he soon learns—if he wants to survive.

By and large, the agencies to which the CLO is accredited cooperate per-

U.S. Army Photograph

A mass airborne drop.

fectly. He has access to all studies, plans of test, reports of test and the like, and can therefore keep the interested Canadian Directorates informed of progress and/or new developments. Similarly, he is invited to witness trials, troop tests and demonstrations and in general is treated more as a member of the organization than as an allied liaison officer.

On occasion, he is asked for information relating to Canadian equipment items, doctrine, training, or concepts. The thanks with which this information is received more than outweighs any effort required to obtain it.

The real *raison d'être* for the CLO is his Quarterly Report. To be worthwhile, this piece of deathless prose requires quite a bit of effort as it is a synopsis of his day-to-day activities for the quarter. Fortunately, the full facilities of the Board are available to the CLO and he should make full use of them. A complete photography lab and a staff artist make illustrations relatively easy and this helps toward producing a more interesting and comprehensive report.

Perhaps the most pertinent definition of liaison that one can find reads in part: "An intercommunication established and maintained between parts of an armed force to ensure mutual understanding and unity of action." For the CLO, the significant part of this definition is "...to ensure mutual understanding..." The key to the success or failure of any CLO is his ability, or lack of same, to make and maintain personal friendly contacts with a host of people in various positions of authority. This doesn't just happen. To succeed as an LO, one must obtain and maintain the respect and trust of those with whom he deals regularly. There are many ways of accomplishing this and each CLO must use his own talents and personality to this end. Above all, he must be himself, be scrupulously honest in dealing with others, and be able to respect a confidence. It goes without saying that complete loyalty to those people with whom he works is absolutely vital.

Canadian Visitors

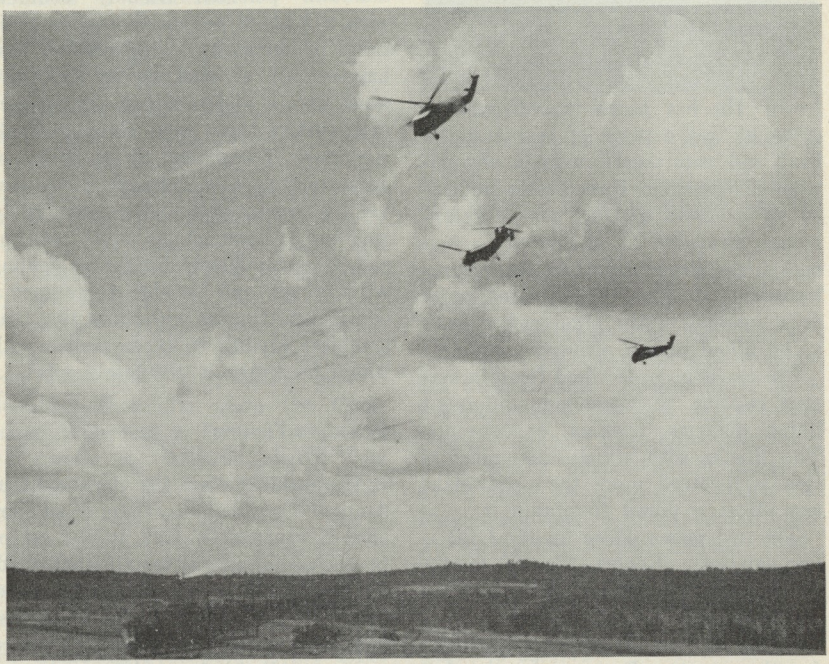
Although there are few Canadian students at Fort Benning, there is no scarcity of visitors. In fact, it is feast or famine so far as visitors are concerned. They arrive in groups of two or three, 30 or 40, and, in the case of the Canadian Army Staff College, a hundred or more. All this is good fun; one can catch up on old comrades, swap a few

lies, and find out who is leading in the National Hockey League, or who the Grey Cup contenders are. The answers certainly will not be found in local newspapers.

Extracurricular Activities

Perhaps this section should be entitled "Extraordinary Activities" because some of the things that confront the CLO from time to time are really quite extraordinary.

The CLO is expected to have an almost encyclopaedic knowledge of Canada. Questions and queries cover a wide range of topics such as politics, wheat sales to Red China, separatism in Quebec, the Columbia River project, integration of the Canadian Armed Forces, trade with Cuba, Canadian winters, and on and on. But these questions can be fielded quite easily. It is a different matter when one is asked, "What do you think of (variously) segregation, Eisenhower, Cuba, Wallace, recognition of Red China, Rockefeller, Cyprus, and lifting a beagle by his ears?" With the obvious exception of "segregation", one must proceed with caution because it is difficult to know whether the questioner is a Democrat or Republican!



U.S. Army Photograph

Two H34 helicopters and one 121 helicopter firing rockets at targets.

It is not unusual for the CLO to be asked to speak to civilian service clubs on a variety of topics ranging from "Canada—Your Northern Neighbour" to "The Strategic Importance of the Middle East". Obviously, the subject matter will be determined by the CLO's background, but "Canada" may be considered as a sure bet at some time or other. Being a guest on a popular local TV panel show is a bit out of the ordinary but may be considered as good fun.

The post has a multitude of planned activities and facilities in which the CLO and his family may participate. One should enter into one or more of the many community activities such as: PTA, church groups, youth clubs, scouting and the like. Opportunities exist for trips to Florida, Fort Bragg, Fort Rucker and many other U.S. military installations within reasonable driving distance of Fort Benning.

The distaff side may take part in a great variety of activities; to mention but a few: ceramics classes, modelling in fashion shows, bridge tournaments, Little Theatre groups, volunteer hospital work.

A partial list of recreation facilities at Fort Benning includes bowling

U.S. Army Photograph

Using inflated rubber rafts, Fort Benning's U.S. Army Infantry School Ranger students on a training patrol in the Florida swamps.

alleys, 36-hole golf course, archery, movies, skeet shooting, hunt club, hobby shop, and swimming pools.

As the senior Canadian officer on post (one need not stress that there is usually only one Canadian on post) the CLO moves in a rather rarified social circle. This is good fun providing one can learn to survive on a diet of *hors-d'oeuvres* and Martinis.

The CLO entertains and is entertained a good deal. Although it will not be found in his terms of reference, nor is any entertainment allowance provided, one should entertain. Indeed, it is considered that the CLO would not be doing his job if he failed to do so. Clearly, one must reciprocate for hospitality received and one should also entertain visiting Canadian officers. It assists in establishing a cordial rapport—before, during or at the end of an official visit. So it helps if the CLO is a gregarious type and if the thought of throwing a large cocktail party people doesn't throw him (to say nothing of his wife) into too much of a flap.

Living Conditions

The CLO is provided with a permanent Married Quarters on post which

U.S. Army Photograph

The U.S. Army's Davy Crockett, a hand or jeep portable weapon system capable of firing atomic or conventional warheads in support of front-line troops. This weapon was service tested by the U.S. Army Infantry Board.

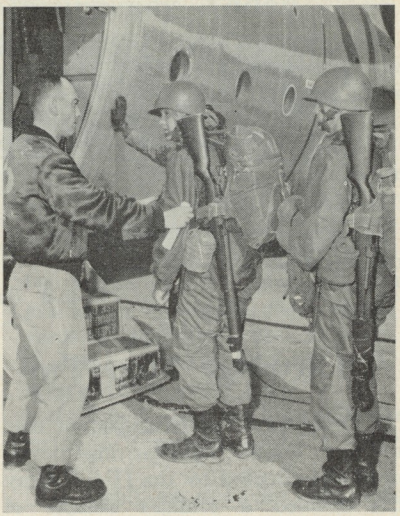
are handed on from one CLO to another. It is very spacious, well appointed, and has adequate grounds. A three-bedroom house, it has a large living room and separate dining room. Off the living room is a sun room with French windows and this helps when one entertains a large crowd. Although the house is virtually surrounded with tall graceful shade trees, in summer it is necessary to keep the air conditioners (purchased by the CLO) going twenty-four hours a day. An experienced Southerner can move from one air conditioned environment to another and never work up a drop of perspiration. The CLO can only do this as far as his office—it isn't air conditioned.

Naturally, one enjoys all the other facilities on post such as the Officers' Club, Post Exchange, Commissary and the like. This helps as it is a ten-mile drive to Columbus, which is the closest town to Fort Benning.

Lest this appear too like Utopia, it must be added that one also encounters all the normal minor frustrations and irritations expected on a post of this size. These take the form of fighting traffic getting to and from work; trying to find a parking space; standing in a queue for an hour to get into the Commissary and again to get out; or listening to the ubiquitous roar of the helicopters of 11th Air Assault Division. But life is good, and as previously stated, these are very minor irritations but they tend to loom large when the temperature is 105 degrees and the humidity 90 per cent.

Conclusion

No Infantryman could fail to be fascinated with his job as CLO at Fort Benning. He sees new weapons and ideas being tried and tested in a fashion that cannot help but excite his imagination.



U.S. Army Photograph

An instructor makes an equipment check of an airborne student before boarding the aircraft for a parachute jump.

A tour of duty as a CLO is a rewarding experience and contributes greatly to an officer's professional and cultural background. Equally, it can be said that the CLO can make a very real contribution to the Canadian Army. His Quarterly Report receives wide circulation at a high level and, if he is an astute observer, it can be a very valuable document. He can also add to the already good reputation which the Canadian Army enjoys by maintaining a high standard in everything he does—socially as well as professionally.

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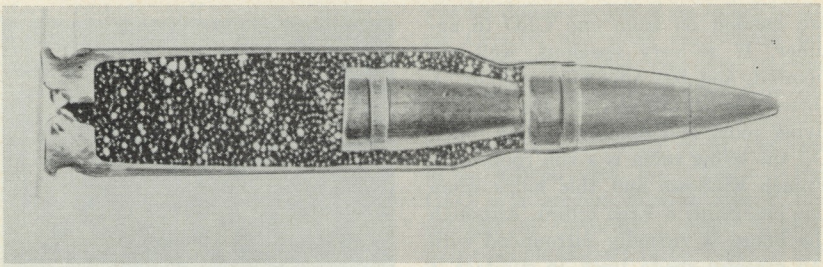


Courtesy Army Information Digest

The 7.62-mm. duplex ball cartridge.

Cartridge Fires Two Bullets Instead of One

Firing two bullets instead of one, the new "duplex" rifle cartridge developed and adopted by the [U.S.] Army has doubled a soldier's chances of hitting his target at close range.

Developed at the U.S. Army Materiel Command's Frankford Arsenal, Philadelphia, the cartridge is similar in appearance to the conventional rifle cartridge. The second bullet nestles tandem-like behind the visible one for successive projection, and is not designed to follow the first, but to proportionately displace itself in order to increase the radius of the strike area. Together they are significantly more effective than conventional 7.62-mm. ball ammunition at ranges less than 150 metres.

Officially referred to as a duplex ball cartridge, its calibre is 7.62-mm. the standard adopted by NATO member countries. Designed for use in the Army's M14 Rifle, it is currently being produced in limited quantities for the U.S. Army and Marine Corps.—*From the August 1964 issue of the Army Information Digest (U.S.).*

U.S. Parachutists Set Record

Nine [U.S.] Marine parachutists have set a new world's record for seven-, eight- and nine- man team jumps at night after free-falling from 44,100 feet to 1800 feet before deploying their parachutes. The previous record of 41,500 feet was set by Soviet parachutists in 1961.—*The Journal of the Armed Forces (U.S.).*

Infantry — Fort Benning

(Continued from preceding page)

The CLO's contribution to the United Stated Army is rather nebulous and harder to describe. Honesty and sincerity in everything he does, coupled with a high degree of professional knowledge, are the most important prerequisites. These characteristics will help foster that "mutual understanding" which is perhaps his greatest contribution.

"Injun" Fighting in 1759
Same As Counter-insurgency Today

*Roberts Rogers (1731-1795), the American frontier soldier, devised these commonsense rules to keep his Rangers from getting shot in the back during the irregular fighting of the French and Indian war. These orders, although a bit ungrammatical, could still apply to American soldiers trained to fight in the counterinsurgency war today.**

1. Don't forget nothing.

2. Have your musket clean as a whistle, hatchet scoured, sixty rounds powder and ball; and be ready to march at a minute's warning.

3. When you're on the march, act the way you would if you was sneaking up on a deer. See the enemy first.

4. Tell the truth about what you see and what you do. There is an army depending on us for correct information. You can lie all you please when you tell other folks about the Rangers, but don't never lie to a Ranger or officer.

5. Don't never take a chance you don't have to.

6. When we're on the march we march single file, far enough apart so one shot can't go through two men.

7. If we strike swamps, or soft ground, we spread out abrest so it's hard to track us.

8. When we march, we keep moving till dark, so as to give the enemy the least possible chance at us.

9. When we camp, half the party stays awake while the other half sleeps.

10. If we take prisoners, we keep 'em separate till we have had time to examine them, so they can't cook up a story between 'em.

11. Don't ever march home the same way. Take a different route so you won't be ambushed.

12. No matter whether we travel in big parties or little ones, each party has to keep a scout 20 yards ahead, 20 yards on each flank and 20 yards in the rear, so the main body can't be surprised and wiped out.

13. Every night you'll be told where to meet if surrounded by a superior force.

14. Don't sit down to eat without posting sentries.

15. Don't sleep beyond dawn. Dawn's when the French and Indians attack.

16. Don't cross a river by a regular ford.

17. If somebody's trailing you, make a circle, come back onto your own tracks, and ambush the folks that aim to ambush you.

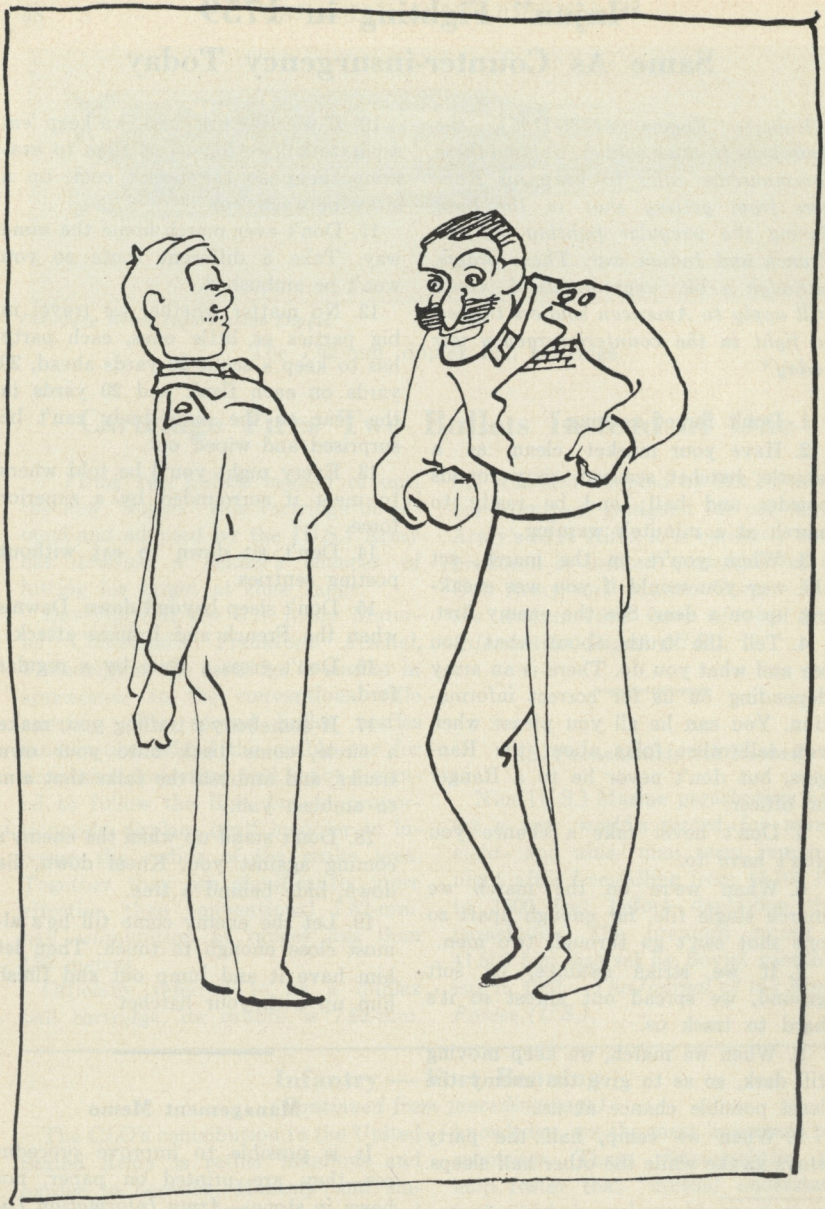
18. Don't stand up when the enemy's coming against you. Kneel down, lie down, hide behind a tree.

19. Let the enemy come till he's almost close enough to touch. Then let him have it and jump out and finish him up with your hatchet.

**Reprinted from the Military Police Journal (U.S.).* — Editor.

Management Memo

It is possible to improve procedures—they are printed on paper, not hewn in stone.—*Army Information Digest (U.S.).*



H.F. Wood

"...eighty-five soldiers for Orders!"

Introducing:

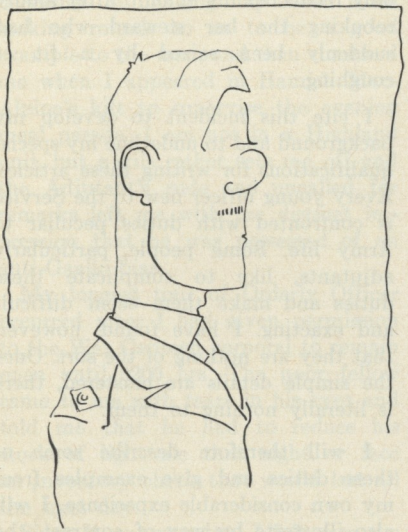
The Misadventures of Second Lieutenant Elmer Wetsack

by

LIEUT.-COLONEL H.F. WOOD, CD

The author is Deputy Director of the Canadian Army's Historical Section at Canadian Forces Headquarters, Ottawa. In addition to his writings on military history and articles which he has had published in Canadian magazines, he is author of the book Forgotten Canadians *published by Longmans Canada Ltd., Toronto (1963), and reviewed in the* Journal *(Vol. XVII No. 1, 1963). It should be noted that Lieut.-Colonel Wood is his own cartoonist—he has produced the drawings for his amusing series which it is hoped will run through many issues of the* Journal.—Editor.

I have always wanted to tell of my adventures in the Regular Army to a larger and more intelligent audience than my brother officers, but my natural modesty has, until now, prevented it. The *Journal,* however, provides such a splendid platform that I can no longer keep silent, particularly since many of its readers are men who have had the good sense to keep in touch with the Army through these columns without getting too deeply involved with it in peacetime.



H.F. Wood

Second Lieutenant Elmer Wetsack

By way of introduction I will say a few words about myself. I have seen considerable service, having been commissioned in 1954 after an arduous and exasperating period of officer training. You may wonder why I am still a Second Lieutenant, but I will, out of loyalty to the Service, pass over that. I can, however, reveal that the main reason I am *still* in it is that the Army Council is completely overawed by my aunt, Miss Emmeline Whipple, the Chairman of the Committee for Salvaging Tired Army Wives.

You may wonder, too, at a person of my ability choosing an Army career, but it seemed to me at "The Moment of Decision" that the Army needed new blood and would certainly advance one of my acumen when there was so little competition.

I voiced this sentiment to my roommate the other day, but his monosyllabic retort merely proved my point. This lack of appreciation is what makes Army life so frustrating to one of my drive and energy.

My roommate goes by the name of Hamish MacAlpine and is a likable enough fellow, though a little simple and uncultured. This is not surprising since his home is in New Brunswick. I of course come from Ontario, and although my birthplace is the hamlet of Twerpton, it is located near enough to Toronto for me to have acquired much of the poise and polish which distinguishes the citizens of that great metropolis.

Lack of polish is not, alas, confined to Hamish MacAlpine. The postwar cadre of young officers leaves much to be desired, and although one's own chances of promotion are thereby greatly enhanced, it does make Army life rather barren and lacking in sparkle. Hamish alone, of all my brother officers, will listen to my views on Army life, and even he, in spite of his obvious need of it, grows restless if I instruct him for more than an hour or so.

My Commanding Officer, Colonel Thruster, however, shares my views in these matters and this is a great source of comfort to me, since he writes my annual reports.

Only the other evening we were having a confidential chat at the bar, during which I was giving him the benefit of my experience, when he suddenly said: "Wetsack, are you happy in this unit?"

Touched by his concern, I hastened to reassure him, whereupon he added, "I was just thinking that some other corps might suit you better—one in which you might be able to use your—ah—peculiar talents".

"Sir," I replied, not having known him long enough to use his nickname "Tubby", "Sir," I explained, "your interest in my welfare is indeed gratifying. I do feel a bit restricted in this corps, but I have learned that loyalty is a prerequisite of an officer and I would not *dream* of leaving you."

Colonel Thruster was so affected by this display of my faithfulness that he turned quite red with emotion and only recovered his aplomb after loudly rebuking the bar steward who had suddenly been seized by a fit of coughing.

I cite this incident to develop my background and to underline my special qualifications for writing these articles. Every young officer new to the Service is confronted with duties peculiar to Army life. Some people, particularly adjutants, like to complicate these duties and make them seem difficult and exacting. I have found, however, that they are nothing of the sort. Once the simple details are mastered, there is literally nothing to them.

I will therefore describe some of these duties and give examples from my own considerable experience. I will also illustrate by way of contrast, the efficient, or Wetsack Method, of getting things done in the Regular Army.

No. 1: How to be an Orderly Officer

In this article I am going to give my readers the benefit of my experience as Orderly Officer. I fancy myself an expert in this subject since my Commanding Officer, Colonel Thruster, has seen fit to choose me for this task far oftener than any of my brother officers. These so-called comrades-in-arms seem to think of a month's duty as Orderly Officer as a punishment, but I maintain that it proves the scarcity of good material in the post-war Army. I appear to be one of the few people that can be trusted to do a good job.

This business of doing a good job is, of course, complicated by the stream of contradictory orders emanating from the Adjutant's office. That churlish fellow, on the eve of my first tour as Orderly Officer, impressed on me the necessity of looking my best when making rounds so as to be a good example to the men, and then chastised me when I appeared in Hamish MacAlpine's kilt to supervise the evening meal parade. I am not in a Highland unit, but a kilt rather sets me off and the Adjutant's rude and uncalled for remarks left me with the distinct impression that he was possessed of an anti-Gaelic bias.

My longest tour of Orderly Officer occurred after I had given permission to the Wet Canteen corporal to remain open until 0200 hrs. The poor fellow came to me with tears in his eyes and told me that he had to reduce his stock of light ale that night or face an inventory check that would last all the next day.

Since it was pay-day, I felt sure the men could drink it all up and gave my permission. I also felt sure the Colonel would approve this clever move but, the following morning, the Adjutant interfered as usual and said something about there being 85 soldiers for Daily Orders. When the Colonel had stopped roaring over this piece of news, he informed me that I would be Orderly Officer for the next month. It seemed unfair to work a willing horse to that extent, but I have learned the habit of unquestioning obedience and I did not protest. Besides, it gave me a sort of permanent status around the Headquarters, almost similar to that of the Adjutant himself, so that I began to make plans for attending the Staff College at an early date.

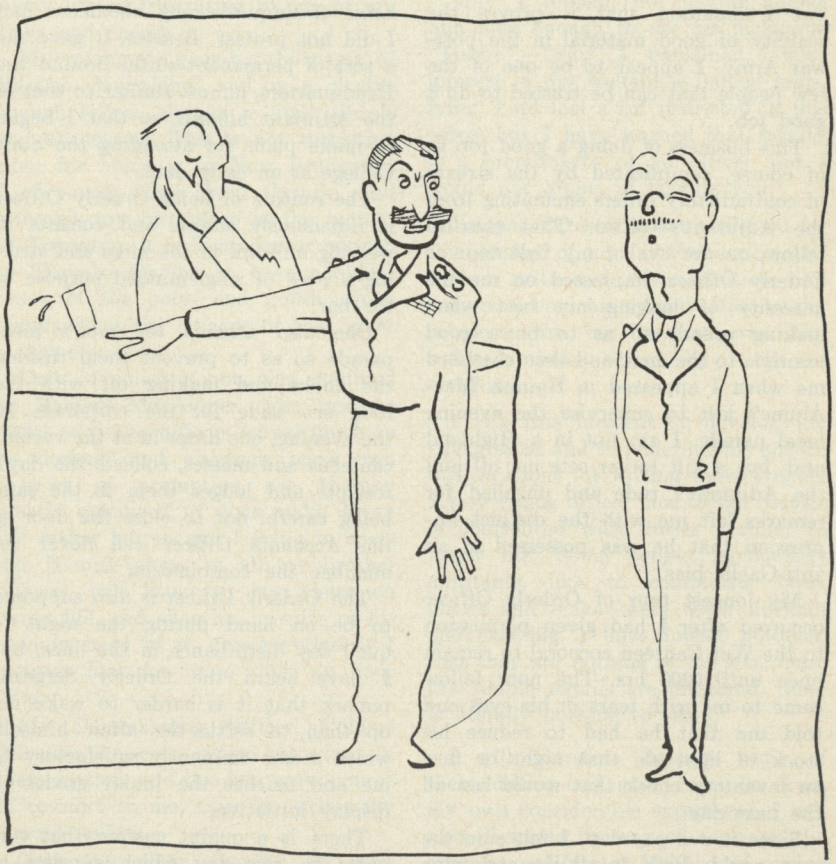
The routine of being Orderly Officer is ridiculously simple and consists of wearing uniform in the mess and striking a pose of singleminded purpose at the bar.

One also attends the men's meal parade so as to prevent them rushing the cooks and making off with the food set aside for the corporals. In the evening, one drops in at the various canteens and messes, collects the day's receipts and lodges them in the safe, being careful not to close the door as the Accounts Officer can never remember the combination.

The Orderly Officer is also supposed to be on hand during the night to quell any disturbance in the lines, but I have heard the Orderly Sergeant remark that it is harder to wake me up than to settle the affair himself, which seems eminently satisfactory to me and teaches the junior grades to display initiative.

There is a quaint custom that survives to this day which consists of making out a report at the end of

one's tour of duty on a sort of question-and-answer form which was created early in the century and has never been amended. Indeed, the form is a revelation to anyone who supposes that there were artificial barriers in those days between officers and men. Consider for example the question which reads as follows: "I visited the guard and sentries at... hours by day and at... hours by night; also the soldiers in the guard detention room and found..." This cosy habit of visiting those on duty and making life easier for them with a hearty clap on the back or the offer of a cigarette has, alas, fallen into disrepute, as I found out after I had passed my hip flask around a group of disconsolate looking men I discovered in the Guard Room



H.F. Wood

"Sir, I would not *dream* of leaving you!"

during my midnight rounds. The Provost corporal on duty was quite miffed by the whole incident, probably because there was nothing left in the flask by the time it got to him.

What ending to put to this Question has always puzzled me, since I have never "found" anything that could possibly interest anyone, unless the Colonel happened to possess a morbid interest in smoking stoves, fire pails filled with cigar butts and a very fuggy atmosphere.

The last statement to be completed on the form is also impossible of fulfillment. It reads: "I saw that all unauthorized lights were extinguished at... hours." I have never been able to distinguish between a light that is authorized and one that is not, so I just put them all out as I come to them. As a result of this, on one dark night the civilian fire detail lit a fire in the dummy fireplace in the Corporal's lounge and dumped three tons of coal in the commissariat.

After a few incidents of this sort the Adjutant told me that, in future, I was to sign a blank Orderly Officer's Report and he would fill in the details himself.

It still seems to me that people will go to amazing lengths in this Army to retain these quaint trappings of the past.

(The second episode in the Wetsack "saga" is entitled "General Inspection". It will appear in the next issue.—Editor).

Private Intelligence

Often in times of peace report-writing becomes a difficult chore. In some instances, rather than admit there is really nothing to say, the writer hides behind a barrage of meaningless words.

For those who may be tempted to do this, I submit the following passage contained in a report written by an officer serving in the days of the "wild and woolly west" (Winnipeg, 1881). It is evident that this pioneer era encouraged straight and honest thinking on the issue at hand:

"All the corps in the North West Territories have been selected for drill this year, but not having received any official communication from them on the subject, I am unable to state what progress they are making. I learn, however, from private sources, that some if not all of them, have been performing more or less drill this season."

This report was written by Lieut.-Colonel C. F. Houghton, Deputy Adjutant General, Military District No 10, Winnipeg, Manitoba, in 1881. — *Contributed by Lieut. H. Noble, Historical Section, Canadian Forces Headquarters, Ottawa.*

Bully Beef v. Gunpowder

Range is more to strategy than force. The invention of bully beef did more to modify land warfare than the invention of gunpowder. — *T. E. Lawrence.*

INFILTRATORS FROM THE SKY

by

LIEUTENANT J.E.A. CÔTÉ*

Darting earthward through the ink-black sky for 80 seconds, a team of five paradelay specialists glance at their illuminated altimeters and prepare to pull their ripcords.

With their steerable canopies inflated they rally towards their team leader's beacon and follow him to the target, all landing within 25 metres of each other.

On the ground all is quiet at the enemy Command Post.

No aircraft has been reported and no one has heard the muffled opening of the parachutes.

Suddenly there is a burst of automatic fire followed by a couple of resounding explosions... two more bursts of machine-gun fire... then silence.

The time is 0340 hours, 21 March 1963, during the XVIII Airborne Corps' Exercise Sphinx III at Fort Bragg, North Carolina. Ten minutes earlier the five-man team had exited their jump ship at 13,500 feet, fell together to a predetermined altitude, split up, opened their parachutes, regrouped in mid-air and landed. Within a few minutes after assembly, these men had sucessfully infiltrated the security of a Crypto Unit. They placed demolition charges on vital Crypto equipment, a 3/4-ton truck and a 2½-ton truck loaded with equipment. In addition, two charges were placed on the CP tent as the infiltrators escaped, undetected, back through their own lines.

These were members of the U.S. Army Parachute Team who have applied the art of skydiving to tactics. Team members, stationed at Fort Bragg, are dropped in both day and night operations with 65-pound loads in addition to their required parachute equipment. They jump with such items as M14 rifles, PRC-10 radios, heavy demolition charges, rucksacks and PAE bags. This paradelay team has repeatedly displayed its uselfulness in demonstrations and on manoeuvres.

Uses of Paradelay Combat Teams

Delayed-fall parachuting is an art developed through training until it becomes a specialized skill. It is rapidly gaining in popularity as a sport throughout North America and abroad. The public knows it as skydiving, but

**A member of the 2nd Battalion, Royal 22 Régiment, stationed at Camp Valcartier, Que., the author is the son of Lieut.-Colonel Emile Côté of Montreal and began his military training with the Canadian Army Cadets in 1952. He is a graduate of the University of New Brunswick (B.A. in Psychology), and while at university began competitive skydiving, as well as doing some research on the psychology of skydivers. He has made close to 100 jumps and is qualified for the Féderation Aviation Internationale's Class "B" parachuting license. While instructing for the Fredericton, N.B., Civil Defence organization, he was the leader of the first Canadian civilian para-rescue team to hold a practical air crash rescue exercise.*—Editor.

Canadian Army Photograph

Four members of the Quebec Parachute Club in front of their jump aircraft, a Cessna 172, during an inter-club sport parachuting meet at Blissville Airfield, Camp Gagetown, N.B., in 1963. *Left to right:* Cpl L. Nix, Lieut. J.E.A. Côté (author of the accompanying article), Major A.L. Lajambe (second-in-command of the Royal 22e Régiment at that time) and 2nd Lieut (now Lieut.) Yves Falardeau.

the majority of the population has little or no knowledge of what it as all about. Consequently it is not surprising that many commanders are unaware that delayed-fall parachuting possesses an important potential in the military field.

By applying the characteristics of flexibility and surprise, paradelay combat team techniques could be used with telling results by small-scale raiding parties, long-range reconnaisance patrols, guerrilla liaison groups, counterinsurgency patrols, casualty and damage assessment teams, nuclear contamination monitors and pathfinder teams employed in airborne or air-landed operations. Small parties of saboteurs could be dropped from bombers or reconnaisance planes on routine missions behind enemy lines. Each paradelay trooper would be a specialist in his own field, but all would be explosives experts. They could probe their way through hostile territory in the dark, accomplishing numerous missions against convoys, supply depots, enemy airfields, missile installations

and other targets of opportunity. They could be dropped by parachute from either fixed-wing aircraft or helicopters and picked up by helicopter or submarine. In order to protect his rear echelons the enemy would be forced to employ countermeasures, perhaps using front line troops.

Advantages Over Conventional Parachute Entry

It must be made clear that this technique is in no way meant to replace the standard military static line one, but it is a specialized technique for use on a small scale for special jobs. Nevertheless, there are two main advantages. Firstly, an aircraft flying over enemy terrain at low altitude is easily detected for what it is — a jump aircraft. Secondly, the conventional static line parachutist has very little control over his parachute once it is open and cannot steer it accurately on to a target. This causes the parachutists to land relatively widely dispersed and this dispersion increases with the speed and dropping altitude of the aircraft. To minimize the dispersion, the parachutists are dropped from relatively low altitudes. Even so, this demands drop zones of a minimum of 1500 yards for a 30-man stick.

In high altitude movement to an objective aircraft are not vulnerable to small arms fire as are low-flying ones. Also enemy anti-aircraft artillery is less effective against them. Furthermore, jump aircraft can be concealed as bombers or reconnaisance aircraft and would likely go unreported by enemy air sentries. Jump aircraft could take advantage of the sophisticated techniques of penetration used by bombers.

Detection

Paradelay troops dropping from high altitudes are not likely to be detected by radar. They fall freely until reaching a predetermined opening altitude. They drop from altitudes of 8000 to 13,000 feet, or up to 20,000 feet with supplementary oxygen. The maximum altitude for a drop would be indicated by the upper limits of the aircraft capabilities. Since radar operates on a rotating 360° electronic beam the rotating pulse rate coverage slows as the aircraft height increases — that is to say, the greater the distance, the longer it takes the rotating beam to reach out and echo back to the set. This could allow a jumper to be undetected at the moment of exiting. As soon as he jumps, he becomes a difficult, if not impossible target to pick up and track.

It is unlikely that a man or group of men falling away for thousands of feet at speeds in excess of 120 m.p.h. would be detected. A flicker noticed 60 seconds or more after an aircraft or group of bombers had passed overhead would not necessarily be associated with a parachute operation. Combining the fact that a single aircraft is often unidentifiable on radar screens because of other traffic, the fact that the speed of the jumper's descent is too great to track on radar, the fact that the noise of a high-flying aircraft is not usually detectable and the fact that a free-falling parachutist is invisible at night and very difficult to spot in daylight makes it clear that the paradelay specialist is the ideal infiltrator.

Summary

If his ability to fly his body through the air to a predetermined opening spot, then steer his open canopy to a target are applied tactically, certain advantages of the free-faller accrue. He can be dropped into areas which are unsuitable for static line parachutists — areas such as small valleys in mountainous country where the terrain prevents aircraft from flying 1000 feet above the dropping zone, and areas prevalent in the tropics and the vast forested expanses of Canada where only small drop zones, demanding great control during the descent, are available. Free-fall parachuting is the ideal method of placing men on the ground in such operations where men are required to arrive, rested and undetected behind enemy lines. As Major E. M. McCormick of the Royal Australian Infantry, writing in the *Canadian Parachutist,* said:

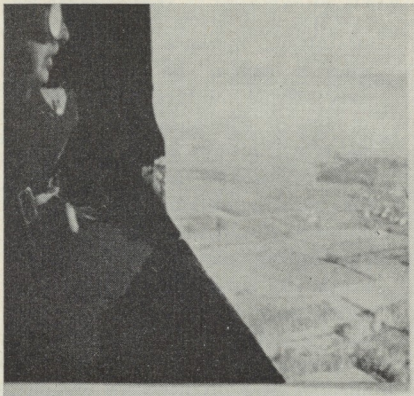
> "Free fall parachuting is not an interim measure and its capabilities cannot be ignored by conventional military theorists. In an age of specialization the specialist will always better the amateur, no matter how keen, and the benefits obtainable from the military employment of free fall parachuting techniques are well worth any extra time and money which may be required to train such specialist parachutists."

This task is not as difficult as one would imagine. The Fort Campbell Parachute Club of the 101st Airborne have developed a training programme for the unskilled as well as for its expert members. A small experienced cadre can, in 21 days, with the trainees making two jumps a day, train them to free-fall at night with combat equipment from as high as 20,000 feet. Any soldier with the proper physical coordination and psychological attitude can be taught free-fall parachuting.

Sport Parachuting

We do not have to search very far from the nucleus of paradelay teams in Canada. The chief sources of free-fall jumpers are the many sport parachuting clubs across Canada, many of which have a core of present and ex-military parachutists and other army personnel. In fact, some of the most active parachute clubs in the country are the military ones such as the Petawawa Sport Parachute Club and the Quebec Parachute Club at Camp Valcartier. Smaller ones such as the PPCLI (Princess Patricia's Canadian Light Infantry) Sky Diving Club and the Oromocto Parachute Club of Camp Gagetown, New Brunswick, are still in their early stages of development.

At time of writing, the president of the Parachute Club of Canada is Sgt. S.F. Wykeham-Martin of Camp Petawawa, Ontario, who was one of the five-man Canadian team which placed fifth out of 24 behind Czechoslavakia, the U.S.A., the U.S.S.R. and France in the Sixth World Sport Parachuting Championship held in the United States during the summer of 1962. This team set a new world team accuracy record with a mean distance of 1.76 metres from the centre of the target for the whole team.



History of Sport Parachuting

While the parachute has been used as a lifesaving device and military vehicle for many years, few people realize that by 1930 the Russians had already begun parachuting as a sport. After the Second World War the sport spread throughout most of Europe and is extremely popular there now. Skydiving or free-falling before opening the parachute only became a part of the sport in France after the war. The precise control required during this phase of the trip to earth was explored and improved upon during the post-war years, although the first real sky diver was Steven Budreau, a U.S. Army instructor. In 1925 he demonstrated that the inherent perils of long-delayed falls could be elminated if the jumper "stabilized" himself during the free-fall. This aerodynamic stability was achieved by extending the arms and legs and arching the back. The deadly flat spin was eliminated by the use of the arms, legs and body moving to counteract it.

Prior to and even after this sophistication of free-fall parachuting, barnstormers used the parachute as a means of shocking crowds. Many of these stunt jumpers were killed while participating in some very dangerous practices, resulting in the stigma which is so often attached to present-day sport parachuting.

In 1956 the sport in its present form was introduced to North America in an article in *Flying Magazine* by Jacques Istel, a French skydiver. He opened the first sport parachuting school in the United States at Orange, Massachusetts, in the same year. From there it has spread rapidly from coast to coast and up into Canada. The sport has grown so quickly in the U.S. that the Federal Aviation Agency has prepared a whole new set of regulations for parachuting. The FAA predicts that by 1970 there may be as many as 250,000 sports jumps per year. If the present trend continues, skydiving might become America's leading sport!

The Technique of Skydiving

As the student jumper progresses from his first ten static line jumps on to his first short free-falls, he learns the basic position of aerodynamic stability. As he progresses to longer and longer delays, he begins to learn manoeuvres. He is able to do anything an airplane can, except, of course, go up! He can turn, roll, loop, vary his rate of descent and move in a horizontal direction. This horizontal movement is called "tracking". By adopting the proper body position, the jumper can move across the ground at speeds up to 60 m.p.h. In this manner he can move towards and pin-point the exact position over which he wishes to open

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The photographs on the facing page were taken during a free-fall parachute course conducted by the British Army of the Rhine and in which members of The Royal Canadian Regiment stationed in Germany took part. At *top left* S/Sgt. Donald Hughes, an instructor with the British Army's 22nd Special Air Service Regiment, drops a wind-marker for The RCR parachutists who are, *top right*, Lieut. B. Lawson; *centre*, Lieut L. Costello; *bottom left*, Lieut. M. Troian; and, *bottom right*, L/Cpl. H. Simons.

his parachute. The ultimate achievement in skydiving is the passing of a baton from one jumper to another while falling through the air at 120 m.p.h., which is the terminal velocity reached after the twelfth second of fall.

It is, however, the rapid completion of a previously planned set of accurately performed and precisely timed manoeuvres, followed by accurately guiding the parachute to a target which constitutes competitive sport parachuting.

Who Jumps — And Why?

Parachuting is not for the faint of heart. It demands a certain amount of intestinal fortitude, physical skill, self-discipline and mental alertness. Occasionally, however, people who may be lacking one or two of these qualities take up the sport in order to build up in themselves what they feel is missing. On the whole, however, sport parachutists are mature, confident and athletic types. They jump for the love of jumping and are the same type of people who explore caves, climb mountains, skindive, ski and pilot planes. Probably a greater percentage of U.S. college students and graduates participate in sport parachuting than in any other one sport. In Canada the sport is younger and is not yet quite as popular.

U.S. Army Photograph

Wearing camouflage coveralls and rucksacks, members of the U.S. Army Parachute Team make a final check of equipment before emplaning.

Three distinct groups of parachute clubs are to be found within the sport: the university, the military and the civilian-at-large clubs. In the U.S. the Intercollegiate Sport Parachuting League has been flourishing since 1957. In 1962 Canadians moved into the league when a team from the University of New Brunswick entered the Intercollegiate Championship which was won by Harvard University.

Combining the collegiate and the military in the U.S., many clubs are organized and supervised by ROTC commanders at universities. West Point Military Academy has, amongst its jumpers, some very experienced competitive skydivers.

Military leagues exist throughout the world, mainly in the United States and Europe. The U.S. Army and Navy each sponsor a full-time team who give public demonstrations as well as work on tactical training jumps. In the 1962 World Championship the team from the United Kingdom, commanded by Lt.-Col. R.D. Wilson, MC, was composed mainly of Special Air Service personnel, who also employ their free-fall techniques in tactical exercises.

It is interesting to note that nearly all of the Russian cosmonauts are sport

U.S. Army Photograph

Members of a U.S. Army Parachute Team make a last-minute map check prior to leaving the aircraft at 13,500 feet on a night raid.

parachutists. Parachuting is extremely popular in that country, which has thousands of qualified free-fall jumpers who have been trained in government-operated schools. They see these skydivers as athletes who provide a potential source of military jumpers. In fact, most of the Communist countries go all out in support of parachuting. Czechoslovakia, which won the Sixth World Championship, for instance, operates large government-supervised jump centres. The Czechs feel that the discipline, responsibility, courage, independence and decisiveness learned in skydiving is useful in their daily work in the schools, factories, fields and offices. As in North America, Czech girls are active in parachuting, but to a much greater extent. About 20 to 30 per cent of all jumpers trained are female.

In the French Army a paratrooper must complete two military free-fall jumps in order to qualify as a para-instructor. Most of France's parachute force is made up of reservists who belong to civilian skydiving clubs.

Safety and Training

Despite the fact that the occasional death has occurred because of carelessness and the flouting of basic safety regulations, sport parachuting has a better safety record then most sports, thanks to the strict regulations and high calibre of the people who participate in and control the sport. At Orange, Mass., there have been more than 30,000 jumps with an injury rate of only 0.18%, the worst of which was a broken leg. Statistics compiled in the United States for insurance purposes indicate that skydiving is about four times safer than skiing and 25 times safer than motorcycling. It is statistically less hazardous than either water skiing, skindiving, steeplechasing or racing.

The Parachute Club of Canada, an affiliate of the Royal Canadian Flying Clubs Association, governs parachuting in Canada through international regulations adopted by the Fédération Aéronautique Internationale. These rules cover the opening altitude for parachutes, maximum wind velocities, equipment, etc. All parachutists, for example, must wear two parachutes, open their chutes at 2200 feet, and, during free-fall jumps, carry altimeters and stopwatches mounted on a panel attached to the reserve parachute.

Sport parachutists are trained along much the same lines as military parachutists. They are taught exit drills, parachute landing falls, emergency procedures and flight procedures. In flight procedure training the trainee is taught to turn his canopy in the air by the use of control lines which are attached to the edges of the "modifications" or cuts in the canopy. When these lines are pulled down they allow air to escape at a tangent to the edge of the canopy, turning it either to the left or right, while moving it through the air at speeds of up to 12 miles per hour (depending upon the type of modification). One of the basic characteristics of the sport parachute is that it is packed in a deployment sleeve to give a relatively light opening shock.

Conclusion

Sport parachuting in Canada, as well as in the Army, is growing by "leaps

and bounds". Some of the military clubs are extremely fortunate in that they are receiving support from commanders of various units, camps, areas and commands. The Valcartier club members land their rented aircraft and jump on to the camp's rifle ranges. In New Brunswick the Camp Gagetown group uses Blissville Airfield which is located within the camp boundaries. These are the more fortunate clubs. Other clubs, however, are still struggling against public and service opinion.

With a little encouragement and support, Canadian Army personnel will be holding their own in competitions at home and abroad in this healthy outdoor sport, as well as some day applying their skills in the form of Paradelay Combat Team members.

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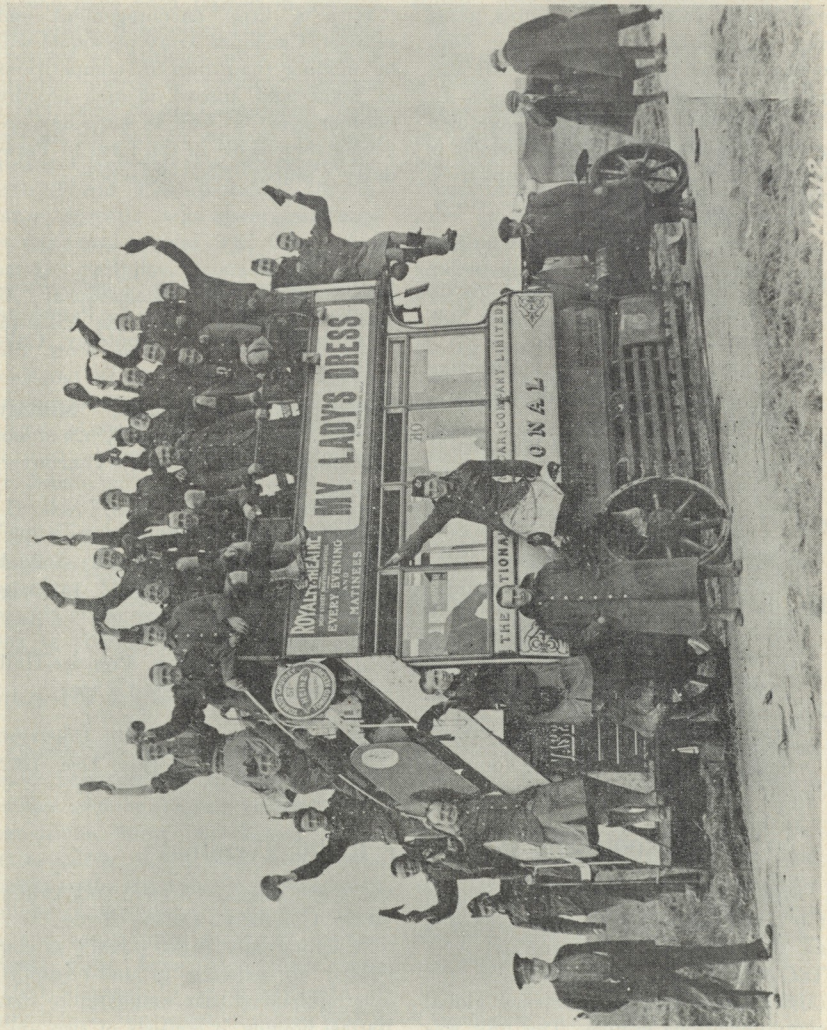
5000-Mile Range for Radio Terminal

Five thousand miles is the range of the new high-powered, single sideband, air transportable radio terminal AN/TSC-38 now being put into use by the (U.S.) Department of Defence global communications system. The unit was developed jointly by Strategic Communications Command, Arlington, Virginia, a field agency of the Office of the Chief Signal Officer, and Collins Radio Company, Dallas, Texas.

Weighing only 19,000 pounds as contrasted to existing ground-transportable equipment that weighs more than 100,000 pounds, it consists of two units that can be transported by a single C130-B aircraft. — *From the Army Information Digest (U.S.).*


ROYAL ORPHEUM
EVERY EVENING
MATINEES
MY LADY'S DRESS
THE
ONAL

Flashback No. 45

Canadian Troops in England, 1914

NARRATIVE SUPPLIED BY THE HISTORICAL SECTION

The photo on the opposite page was taken exactly half a century ago, when the First Canadian Contingent arrived in England. The Boar's Head badge, which was soon to be superseded by the Black Watch's present badge, identifies these troops as the 13th Battalion (Royal Highlanders of Canada) from Montreal.

The intended sailing strength of the contingent—the future 1st Canadian Division plus reinforcements, and certain other troops—was 25,000. On 21 September 1914, however, the Minister of Militia (Colonel Sam Hughes) decided that all 30,000 "effectives" at Valcartier should go overseas at once. This completely upset the movement plan, whereupon Colonel Hughes appointed a "Director General of Embarkation"—without staff! Ships were loaded on a trial-and-error basis. One unit had to be transferred from the *Bermudian* to a larger transport, its intended ship sailing half empty.

The 13th Battalion embarked on the *Alaunia*. Its transport was on another ship, though one of the officers had arranged for eleven supernumerary horses to accompany the unit. On 3 October, just before the 30-ship convoy steamed out of Gaspé, the Minister came aboard and personally collected letters which officers and men had written: for security reasons these were not to be mailed until the contingent had reached England.

"The men in particular found themselves in luxury," the 13th Battalion historian was to write, "the soft bunks and the more varied food forming a sharp contrast to the less elaborate conditions they had become accustomed to." The sea being calm, 20,000 boxes of a secret remedy for seasickness went largely unused. The crossing was quite uneventful, though reports of German submarines in the Channel caused a last-minute change in destination from Southampton to Plymouth. Disembarkation began on 14 October. The 13th Battalion's experience in Plymouth was typical—"everywhere showered with gifts and accorded an enthusiastic reception."

The next stop was Salisbury Plain for four months' further training before crossing to France. — *Captain F.R. McGuire.*

The Revenge of Mediocrity

No man who is superior in any particular escapes envy. People think in terms of comparison. If he has a better garden, he is envied by neighbours; if he gains promotion, he is envied by workmates; if he copes with events so as to live happily, he is envied by failures. Envy is the one revenge of mediocrity. — *The Royal Bank of Canada Monthly Letter.*

DELEGATION: GREEN LIGHT TO COMMAND CONTROL

by

COLONEL RICHARD K. HUTSON, UNITED STATES ARMY*

A senior who will not delegate authority either doesn't have confidence in the people below him or he thinks he is the only person capable of doing the job.

Railroads of the world employ two basic systems for controlling trains. One might be termed the "green light" system and the other the "red light" system.

In the case of the former, all control jacks are green and the conductor has a license to keep going until someone in control authority turns the light red. This is the system in use by United States railroads.

European railroads use the opposite approach in which all lights are turned red and a conductor may not proceed until someone in control authority turns the light green.

Both systems apparently work quite well for running a railroad, but when applied to the operation of a military organization, one has definite advantages over the other. In one instance, the conductor can go all the time until the man in control flashes the red light. In the other, he cannot go at all until someone tells him "now is the time."

The advantages of one system over the other for military operations are quite obvious. The green light system provides for the delegation of authority which is essential to the success of military organizations. The red light system, on the other hand, completely centralizes control and is the antithesis of sound military operations.

Delegation of authority, coupled with a widespread willingness by individual U.S. soldiers to assume responsibility, results in the development of leadership qualities at both the highest and the lowest levels of organization.

Basic Doctrine

The Army's doctrine of command is found in Field Manual 101-5, *Staff Officers' Field Manual, Staff Organization and Procedure*. It is stated quite succinctly. "Command," says the manual, "is the authority which a commander in the military service lawfully exercises over subordinates by virtue of rank or assignment."

Thus if one is to command, someone must first give him the authority to do so, and it must be lawful and given from top to bottom. Authority cannot be assumed: it must be delegated by a superior. Until this is done, there is no license to operate.

**The author is Deputy Chief of Transportation.* *This article is reproduced from the November 1963 issue of the* Military Review *(U.S.) by courtesy of that periodical.* — Editor.

The field manual states further that "The Commander alone is responsible for all that his unit does or fails to do. He cannot delegate this responsibility . . ."

Key to Success

The Army doctrine of command, then, involves lawfully exercised authority delegated from top to bottom and an understanding that a commander can delegate authority, but cannot delegate his responsibility. The green light system of operation is really nothing more than the proper exercise of this doctrine. The key to its success is a willingness to delegate authority freely to the lowest possible levels at which sound decisions can be made. And the authority delegated at each command level must be sufficient in each case to permit acceptance of responsibility for the decisions which will be required.

Delegation of authority is sometimes difficult to get started when people are not accustomed to it. It can be done with little change in basic organization, but it calls for a major change in concept of operations and organization.

A good commander will utilize his staff to the fullest. The more he gives them to do, the more work the unit is able to perform, and the more the men can grow to the benefit of themselves and the organization. What better training is there in peacetime than permitting subordinates to exercise authority and make independent decisions?

Independent decisions may not be easy to make. If an error is made, it may cause the commander some embarrassment. Some good does come from it, however. If a man makes a mistake, and is corrected, and the man is honest and is trying, he will never make the same mistake again. Also, the man who is permitted to take on decision-making duties during peacetime is going to be ready to make the comparable or more difficult decisions required in time of war.

A senior who will not delegate authority either doesn't have confidence in the people below him or he thinks he is the only person capable of doing the job. But one thing is certain — unless a person has a distinct understanding with his superior as to what he is to be permitted to do, and unless that superior has delegated to him the authority to do it, he has no license to do anything. He cannot do a thing because authority cannot be assumed. Authority has to be given by a superior.

The dilemma faced by leaders at all levels is to know how much authority it is safe to delegate, and how much should be centrally retained. A commander also wishes to know how he can be sure that a junior will do a good job in exercising the authority he delegates to him. There is no simple answer to either problem. There are, however, a number of ways in which a commander can protect his interests:

- Delegations of authority should first be accomplished in writing from the commander down so that each control level will understand clearly the limitations of its "green light" to operate independently.

• Authority is not sufficient in itself. The subordinate must also have access to the guidance which he will require for making decisions. This guidance must be sufficiently broad to permit the subordinate some latitude for the exercise of initiative. Therefore, the commander must publish his policies.

• Policies might be defined as the amalgamated expressions of the commander's personal traits, his experience, and his intellect on matters of management and procedure.

• The commander is the only person who can make policy. His policies must fall within the framework of those of his next higher commander, and must be restricted to matters affecting solely his own particular element of the organization.

• The bigger an organization, and the more it is spread out, the more essential it becomes for the commander to establish and publish definitive policies.

Policy Deviations

Policies serve as guides in standardizing operations normal to the times and circumstances. Since it is impossible for anyone to write a policy which has meaning and is good for all circumstances and conditions, it may be necessary in certain times and circumstances for a subordinate to deviate from policy. The person who is really worth his weight is the one who says, "I know the regulations, I know the policy, but I should deviate from them now — at this time and under these circumstances."

Perhaps he will make a mistake; maybe he will trip up the commander. All right, that's the chance a commander must take. But this person is assuming the responsibilities of his job and should not be criticized if he has made an honest effort. Everyone is going to make a mistake at some time or another, and the person who accomplishes the most is likely the one who will make the most mistakes. As one commander advised his subordinates, "Don't be afraid to go out on a limb; that's where the fruit is."

No one has a license to disregard the regulations and the policies indiscriminately. All must follow them unless time and circumstances determine they should not. Not much will happen to anyone, of course, who follows them always.

Standards

Closely allied to the issuance of policies is the necessity for establishing standards against which day-to-day performance can be weighed.

The word standards is just another term for yardsticks. A commander who will accept anything less than superior has a warped sense of values. Every objective at every echelon should be to do the best and nothing less within the capability of its men, money, materials, and facilities. If objectives are not high, standards will not be high.

Many people fail to recognize and evaluate standards. Standards are really relative matters. High standards for one might be considered mediocre in another. They are going to change with the individuals involved. A man making an inspection helps set standards. Basically, this is the reason for

inspections. They are a means for checking prevailing standards against those desired by the commander.

Central Control

In recent years the design of military organizations has been directed at centralized control and decentralized operations. The advent of automatic data processing systems which permit the rapid collection and assimilation of information, the effect of fiscal and budgetary controls, and the vertical nature of the management control exercised over major Army systems have the inherent tendency to centralize more and more of the decision-making at progressively higher levels in the organization.

As in the red light system for running a railroad, this centralization denies commanders at lower levels the freedom of action to act independently and is incompatible with the requirements for the conduct of successful military operations. Too much centralized control can cause serious inroads upon command authority. It seriously restricts flexibility and slows reaction time to changing situations.

Giving a man all the authority which he is capable of exercising and for which he will assume responsibility is good business. Done properly, authority is delegated and redelegated in writing to the lowest levels at which sound decisions can be made. Delegation is followed by the publication of policies and establishment of standards which leave no doubt as to the commander's desires. When delegation has been properly accomplished, individuals are less confused about their duties, take renewed pride in their own and the command's accomplishments, and acquire valuable training in making the progressively higher and higher level decisions which are the substance of true military leadership.

Commanders who have the courage to initiate the green light system will find that it is not only an excellent way to run a railroad, it is also a good method for running a military organization.

U.S. Military Ahead of Colleges

In many ways, the armed forces of the United States have far outstripped the nation's colleges and universities in educating American youth. In fact, the primary business of this country's military establishment today is education . . . the armed forces spend more money on education than all academic institutions combined and provide one of the most comprehensive and advanced educational programmes in the world . . .

Young men who enter the armed forces today can expect to spend 50 to 80 per cent of their time in school throughout their military training.

It is no longer true . . . that young men bored with education can escape it by joining the Army. Within 72 hours after induction, they will be back in school. — *From a report issued by Teachers' College, Columbia University, New York, introducing a new book, "Classrooms in the Military".*

LEADERSHIP IN BATTLE

by

MAJOR-GENERAL C. VOKES, CB, CBE, DSO, CD (RET'D)

During my war days as a Canadian soldier, the highest accolade which one could bestow on a subordinate, an equal or a superior was to say, "He is a leader", or "He displays powers of leadership". It is only in the aftermath of conflict that one has given any real thought to the exact meaning behind these phrases.

The Concise Oxford Dictionary defines the verb "lead" at some length and from this one gleans the following four meanings:

1. Conduct, guide, especially by going in front.
2. Direct movements of (as a commander).
3. Guide by persuasion.
4. Induce to do unconsciously all one wishes.

The last two definitions seem inappropriate in the military lexicon. They could of course describe the unhappy position of a leader attempting to quell a mutiny, or they could well apply in the leadership of an international group of armies. Joffre was forced to do this in dealing with Sir John French in 1914 and General Eisenhower probably had to lead in this position in the Second World War. To the average soldier, however, "to lead" means "Conduct, guide, especially by going in front"; and "Direct movements of (as a commander)".

Let us examine the problem and elaborate on the definitions:

1. "Conduct, guide, especially by going in front"; and

2. "Direct movements of (as a commander)."

In battle it is the duty of a junior officer or non-commissioned officer to lead his men, literally in front, particularly in the final assault or in dangerous places. This is based on the premise that where he goes, his men are bound to follow.

But if a senior commander issues the order "follow me" in battle, he is either leading a forlorn hope or else he is jeopardizing his command. It is his duty to control the various bits and pieces of his tactical command and to influence the battle by manoeuvring his reserves. He cannot do this from in front, but he must do it as close behind his leading troops as possible. His position is solely dependent on where he can best control the battle.

The forward troops are always exhilarated at the sight of senior officers under fire. Therefore even though it causes considerable personal discomfort to the individual concerned, all senior officers in command of fighting troops should make it their business to be seen occasionally where conditions are unpleasant. This, however, is not to be confused with "going in front". The senior commander who personally seeks to see the whites of the enemy's eyes is a menace to his command. Should he become a casualty through foolhardiness of this sort, two things can happen:

1. Complete confusion until someone else steps into the breach; or

2. The battle is lost.

There was a rule of thumb in the Second World War that the tactical headquarters of commanders at different levels would be positioned in battle as follows:

1. Battalion Commanders—5 minutes on foot to his leading company headquarters.

2. Brigade Commanders—5-10 minutes by jeep to battalion headquarters.

3. Divisional Commanders — 10-15 minutes by jeep to forward brigade headquarters.

This proved very reasonable in practice.

It is a truism to say that one of the first requirements of leadership in battle is that of personal courage. No man who lacks it will ever be a good leader of fighting men. Courage in a man is the result of environment, upbringing and ingrained racial characteristics. No race or nationality has a premium on it. Some men have it in greater abundance than others. There are men who will never be able to overcome fear in battle.

The history of battles is abundant in outstanding feats of personal gallantry in which the raw, stark courage of a single individual or group of individuals has brought about success or staved off local disaster. Yet all brave men were not good leaders. Some were such rugged individualists that they were careless of the lives of others. This is contrary to a paramount rule which must govern all leaders in battle—"responsibility for the lives of those they have the honour to command".

At all levels of command, leaders must possess the ability to think clearly when mentally and physically tired. Everybody (and I repeat *everybody*) from the highest to the most junior in a fighting formation becomes very quickly mentally and physically weary in battle. The longer it lasts the worse it gets. One has to force oneself to make decisions on which may hinge success or failure. The ability to overcome this battlefield inertia is the hallmark of a good leader, whether he be an infantry section leader or a divisional commander.

Another attribute of leadership is the ability to remain confident of success. The minute a leader voices pessimism about the outcome of a battle, it spreads through his subordinates like wildfire. Sometimes it is very difficult to remain confident when casualties have been heavy and progress has been slow. It is difficult to urge weary troops on. That is the time when the leader must infect his subordinates with his confident optimism. Soldiers will always give that last effort which turns the tide if their leaders are calm and confident. No good leader will ever acknowledge failure during battle, nor will he ever permit his troops to acknowledge failure.

In offensive battle, the lower down the scale the more parochial the view. The situation may be very grim in some sectors of an attack, whereas all may be going well elsewhere. It takes determination on the part of junior leaders to maintain pressure in the face of obstinate resistance. But this they must. Thus the determination to succeed must be evident in every military leader.

We have discussed the positioning of leaders in battle. We have stated that personal courage, mental and physical ruggedness, optimism, determina-

tion and non-recognition of failure are required characteristics in a leader. A point not yet mentioned is professional competence.

Professional competence involves a mastery in the profession-of-arms. It has happened at the end of a battle that lance-corporals, or even privates, end up commanding platoons, and lieutenants or sergeants in command of companies. A junior officer may find himself commanding his battalion. Therefore every leader by training and experience should be made capable of filling an appointment at least two above that which he occupies.

Under professional competence are also included man-management and battlefield administration, on which there is no need to elaborate further.

Finally, a good leader is one who is quick to accept responsibility. He is also a person who is prepared to decentralize responsibility with confidence. But in so doing, he must be loyal to his subordinates, in that, having decentralized, he must be prepared to accept the responsibility for decisions made by them. The commander who blames his subordinates for failure is a poor leader.

To conclude, a good leader is one who believes in the old adage: *"Never keep dogs and bark yourself"* and, as a postscript, *"If any dog refuses to bark satisfactorilly, get a new dog."*

Opium Pipes and Fans

The following is an excerpt from Victor Purcell's book *The Boxer Uprising* (the story of the rebellion against foreigners in China in 1900) published by the Cambridge University Press, Great Britain:

[The Chinese Army] was simply a rabble provided with bags of rice, gay flags, umbrellas, fans, rusty guns, gingalls, spears, heavy swords, and (very occasionally) fairly good rifles and cartridges of a date always behind the times. If there was time and money, hired coolies carried the provision bags and the arms, while the soldiers carried the umbrellas, opium-pipes, and fans. If matters were urgent, the soldiers carried all. There was never any medical staff, not even bandages, and (if the warrior did not slink away before shooting began) he hopped off, when wounded, to die or recover in the nearest ditch. His pay was always a doubtful quantity, but he did not mind that much, so long as he was allowed to plunder the people he was marching to defend. When not on the march, entrenching himself, or trying to "start" the enemy on the run, he spent his time smoking, gambling, or prowling after women. Discipline of any kind there was none; but if the officers were insulted, heads went off in no time; in all other matters officers were disposed to be easy, so long as the men were not too curious about accounts, and were ready to cover the commander's flight when the enemy really came on. — *Contributed by Lieut.-Colonel L.M. Sebert, Deputy Director of Military Survey, Canadian Forces Headquarters, Ottawa.*

THE DISCIPLINE OF LANGUAGE

The following is taken from the Royal Bank of Canada Monthly Letter. — Editor.

There is magic in words properly used, and to give them this magic is the purpose of discipline of language.

Some quite intelligent people have been lured into thinking that a concern for words is out of date. Others allow themselves to believe that to speak and write sloppily is somehow an emblem of the *avant-garde*.

The truth is that in no other time in history was it so important to use the right words in the right place in the right way to convey what we have in our minds. We need the proper use of language to impose form and character upon elements in life which have it in them to be rebellious and intractable.

A glance at our environment will show that our high standard of living, brought about by our mastery of science and technology, is menaced by the faulty use of signals between men, between ideologies and between nations. By misinterpreting signals (which is all that words are) we create disorder in human affairs.

Communication of ideas is an important human activity. When we invented writing we laid the foundation-stone of civilization. In the beginning the power of words must have seemed like sorcery, and we are compelled to admit that the miracles which verbal thinking have wrought justified the impression.

Words underlie our whole life, are the signs of our humanity, the tools of our business, the expressions of our affections, and the records of our progress. As Susanne Langer says in *Philosophy in a New Key*: "Between the clearest animal call for love or warning or anger, and a man's least, trivial word, there lies a whole day of creation — or, in modern phrase, a whole chapter of evolution."

This language has such transcendent importance that we must take pains with its use.

The key word in all use of language is communication. Thoughts locked up in your own breast give no profit or pleasure to others, but just as you must use the currency of the country in which you are travelling, so you need to use the right currency in words if you are going to bring your thoughts into circulation. Many centuries ago Paul the Apostle wrote in these cautionary terms to one of his churches: "Except ye utter by the tongue words easy to be understood, how shall it be known what is spoken? ... ye shall speak into the air."

What counts is simply this: to say what you mean with precision and accuracy in plain language. A true definition of style is "proper words in proper places with the thoughts in proper order." A scrupulous writer will ask "What am I trying to say? Do these words express it?" A word does not serve well which does not excite in the reader the same idea which it stands for in the mind of the writer.

There is no easy way of choosing words. They must not be so general in meaning as to include thoughts not intended, nor so narrow as to eliminate

thoughts that are intended. Let the meaning select the word.

A word is ambiguous when the reader is unable to choose decisively between alternative meanings, either of which would seem to fit the context.

A great deal of unclear writing results from the use of too many broad, general words, those having so many possible meanings that the precise thought is not clear. The more general the words are, the fainter is the picture; the more special they are, the brighter.

Socrates pointed the way toward clarity in the use of language when he demonstrated to his disciples that they would get nowhere in their dispute about justice unless they agreed upon clear definitions of the words they used. He made sure that they were talking about the same things.

There is only one way to make sure of the communication of ideas: to demand that what is being said to you shall be said in terms understandable to you, and to discipline your own language so that it says what you want it to say.

If you are just beginning to write, make it your first rule to be plain. If nature means you to be a fancy writer, a composer of odes or a trail-blazing author like Joyce or Stein, she will force you to it, but whatever of worth you turn out even then will be based upon your developed skill with words.

Meantime, say what you have to say, or what you wish to say, in the simplest, most direct and the most exact words. Someone who has no better employment may pick holes in every third sentence of your composition, but you have written in such a way as to satisfy the common sense of those who read to find meaning.

The plain way of writing conceals great art. By avoiding pomposity, ambiguity and complexity you attain simplicity, which is the greatest cunning because it conveys your meaning into the mind of another straight away, without effort on his part. It carries with it, too, a feeling of sincerity and integrity, for who can be suspicious of the motives of a person who speaks plainly?

What Words Are

Words are the only currency in which we can exchange thought even with ourselves. It is through words, which are the names for things and actions, that we perceive the events of the world.

Because of this universal importance, we need to be as clear-cut as we can in their use. Inexactness to some degree is inevitable, because thought can never be precisely or adequately expressed in verbal symbols. Words are not like iron and wood, coal and water, things we see and touch. Words are merely indicators, but they are the only sensible signs we have, enabling us to describe things and think about them. In the darkness of night we talk about the sun, knowing that the word "sun" presents a picture to our hearer; we write about the "sparkling ripples" caused by the stone we cast into a pool, knowing that our description presents a motion picture to our reader.

A Big Vocabulary

Knowledge of words is not burdensome. Words are pleasant companions,

delighting in what they can do for you whether in earnest or in fun, in business or in love. The true dimension of your vocabulary is not, however, the number of words you can identify but the number of words you can use, each with its appropriate area of meaning.

With an adequate vocabulary you are equipped to express every shading of thought. Too often in the ordinary intercourse of life we let this wealth of words lie inert and unemployed. We work a limited number of words to death. We exist in voluntary word poverty. We do coarsely what might be done finely.

One road to language mastery is the study of synonyms, words that are similar yet not identical in meaning. Two words that seem to be the same may have very much in common, but also have something private and particular which they do not share with each other, some personality natural to the word or acquired by usage.

Everyone recognizes the difference between child and urchin, hand and fist, mis-statement and lie. There is an overtone of meaning which causes a mother to resent your calling her child "puny" instead of "delicate". People persist in confusing "instruction" with "education" when discussing our school system. The former is furnishing a child with knowledge and facts and information; the latter is a drawing forth from within, opening up fountains already in his mind rather than filling a cistern with water brought from some other source.

Study the different shades of meaning expressed by the synonyms of a general word like "said". When should you use "maintained"? Under what conditions would "claimed" be more appropriate? Look at the different effects produced in your mind by substitution of these and other words for "said" in this sentence: "He said (asserted, implied, assumed, insisted, suggested) that the police were doing a good job." And try the substitutes for "looked" in the sentence "John looked at Mary"... glared, gazed, leered, glanced.

We may use "arrogant," "presumptuous," and "insolent" almost interchangeably in loose talk, but when we examine them with care we find three distinct thoughts: claiming the homage of others as his due; taking things to himself before acquiring any title to them; breaking the recognized standard of social behaviour. There is a world of difference between the meanings of misconduct, misbehaviour and delinquency, and between vice, error, fault, transgression, lapse and sin.

This discrimination may appear trifling to some and tiresome to others. The writer who wishes to think clearly and express his thoughts clearly — and is there anyone who will admit that he wishes to be a bungler in thought and speech? — will see its virtues.

New Words

A man should revise his language habits from time to time in order to keep pace with life and custom. There are more things to think about and to communicate about every day.

It may seem wise to some pedants to say that the words of a century ago are the best words, but we cannot go through life using the language of

the last century any more than we can get along with the language of Cicero. Imagine that superb orator standing before our Senate to explain a bill having to do with nuclear warheads and the probes into space. The point is that if Cicero were alive today and had words for these things he would use them so as to make his meaning crystal clear.

Good writing demands more than the addition of words to our vocabulary and the breaking of slovenly habits. It requires interest in language that inspires us to seek the best instead of muddling our thoughts and our communications by using the second-rate just because it is handy.

Every business, every profession, every trade, and every sport has its jargon. Specialists acquire words and ways of saying things which are handy in their work, and this is quite natural and proper. Jargon has its place within the interested group, but use of it makes communication with outsiders difficult.

A Pomp of Words

Grace and style — the pomp of words — do not make a letter or an article wise, and yet the conviction that profundity of thought is evidenced by complexity of language is astonishingly widespread. This advice is quoted jocularly in *So You Have To Make a Speech* by Daniel R. Maué: "When you don't know what you mean, use big words — that often fools little people."

To help us to discipline our language we have devised semantics and syntax. The first is defined as "the science of the meaning of words," and the second is concerned with the manner of putting words together properly.

To make even a small venture into these branches of knowledge is to gain a lesson in humility and patience, and new ideas about the use of words to communicate the thoughts we have. The brave new science of General Semantics, still in its swaddling clothes (its textbook, *Science and Sanity*, was written by Alfred Korzybski in 1933) already has many interesting results to show. Its enthusiastic followers are actively exploring its implications for logic, aesthetics, education, psychiatry and other subjects.

What is the Remedy?

To be a good writer a person must spend much of his time at a table in the toilsome act of writing. You cannot develop a word sense haphazardly any more than you can pick up by casual or chance acquaintance the facts in physics and chemistry and mathematics needed in today's manufacturing.

After writing thoughtfully and correcting critically, you still need to read what you have written to ascertain that it is free from ambiguity, that the message is right, the words right, and the tune right.

Next to practice in writing, a writer needs bountiful exercise in reading. Language comes to us enriched by the insight, imagination and experience of generations before us. We need to see how acknowledged masters used words. The more you immerse yourself in the work of great writers of good language, the broader and more accurate your

vocabulary will become and the more vigorous your style.

Today's life is passing by, and some are trying with a pen or a typewriter to put a bit of it on paper. The great tragedy of many people is that their vision is sublime while the means of expressing it escapes them. We need not be of that sort. By putting forth a little directed effort in study we may learn to tell our thoughts and ideas with dexterity.

Writing is not yet like an automated factory. It is still in the handicraft stage. People have to do it themselves. It is wretched taste for them to be satisfied with the commonplace when the excellent lies at their hand.

The power of words rightly chosen is very great, whether those words are used to inform, to entertain, or to defend a way of life. Confucius summed up the need for right choice when he said: "If language is not correct, then what is said is not what is meant; if what is said is not what is meant, then what ought to be done remains undone" and, as a consequence, morals, art, justice and the business of life deteriorate, and "the people will stand about in helpless confusion."

"Exercise Les Voyageurs": An Explanation

The attention of readers is drawn to the fact that two officers collaborated in the preparation of the article entitled "Exercise Les Voyageurs" which appeared in the *Canadian Army Journal's* Issue No. 3, 1963.

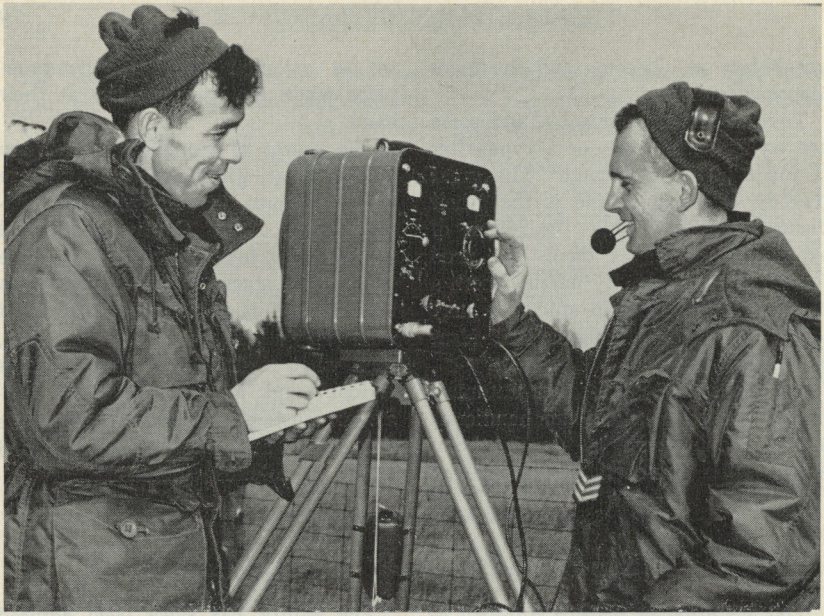
The *Journal* was informed at that time that Captain A.G. Christie, then serving as Intelligence Officer at Headquarters, 3rd Canadian Infantry Brigade Group, Camp Gagetown, was the author of this report, and his name appeared in the creditline.

The Editor has since been advised that Captain J.M. MacFie of the 1st Regiment, Royal Canadian Horse Artillery, did the background work, including the selection of pictures, for this report. It was later reviewed by Captain Christie who, in the final version prepared for publication, incorporated information not available to Captain MacFie.

The *Journal* apologizes to both officers for any embarrassment they may have been caused by this error.

Advice to the Staff Officer

The good General Staff officer must bear in mind always that his function is to serve his commander and subordinate units wisely and well. His own personality must be attuned and directed towards this requirement. The personality cult is to be developed for the commander, *not* the staff officer. This argues a somewhat chameleon type flexibility for the average... Army officer, who is expected to be at different intervals an efficient staff officer and commander. — *Lt.-Col. C.H.A. East, Royal Australian Infantry, in the Australian Army Journal.*



Sergeant R. Hunter, left, and Sergeant E. Tanner, employed in the Army Survey Establishment, Ottawa, are members of the mapping party which operated in Canada's north this past summer. Included in their equipment was this tellurometer, a device which measures distance electronically.

Two Survey Teams Operate in North

Two survey teams from the Ottawa-based Army Survey Establishment, Royal Canadian Engineers, again operated in Canada's northland this past summer.

The first team under Captain Donald Mongeau of Montreal initially operated on the Melville Peninsula, District of Keewatin, Northwest Territories, and then moved south along the western coast of Hudson's Bay, while the second team under Major Douglas Arnott, an exchange officer from the Royal Engineers, surveyed in the area of the north shore of the St. Lawrence and the Labrador coastline.

These operations complete the field survey requirements for the Canadian mapping programme at the scale of 1:250,000 (about four miles to the inch). They also provide the necessary information for the production of maps at the scale of 1:50,000 where required.

Using civilian-leased helicopters to travel between stations, the parties carried out a traverse which will control the aerial photographs used in the compilation stage of mapping. As well as the conventional theodolites, teams used Tellurometers, electronic distance measuring devices which are extremely accurate and greatly simplify long distance survey.

A Nostalgic Picture

Summer Camp a Half-Century Ago

Major R.H. Roy of the University of Victoria, B.C., gives us a nostalgic glimpse of Army camp life as it was in the interior of British Columbia a half-century ago. The following is an extract from the first chapter of his regimental history of The British Columbia Dragoons (formerly the British Columbia Horse) scheduled for publication early next year. Major Roy commands the Canadian Officers Training Corps contingent at the university where he lectures in history. — Editor.

That summer [1914] both of Armstrong's militia units went to the annual camp to join their respective regiments. It was the largest military assembly yet held in Vernon, and Mission Hill Camp was a hive of activity while the city itself took on the appearance of a garrison town. Almost 2000 soldiers were there living under canvas, and early in the morning the sound of the bugles blowing reveille or the shrill call of the bagpipes playing "Hey! Johnnie Cope" could be heard across Long Lake. There were the 30th and 31st B.C. Horse, the Seaforth Highlanders of Canada, the Rocky Mountain Rangers, a few companies of the Corps of Guides, the Duke of Connaught's Own Regiment, and other units from various corps in the militia. Whether on parade or not, they made quite a military spectacle. As usual, on the last day of camp, the civilians flocked in from far and wide to enjoy the camp sports day.

The two weeks — weeks of continual warm, pleasant days — passed quickly and pleasantly. Concerts in the evening at the City Park were given by the various regimental bands for the enjoyment of soldiers and civilians alike. Many of the out-of-town militiamen were invited to the homes of the citizens of Vernon. Some spent their evenings boating and swimming in the lake, others could be found wandering the streets of the town, visiting friends in other regiments in the camp, or perhaps escorting young ladies to some melodrama playing at the "Dreamland". There were no buses, but it was no great distance to town and it was pleasant to walk the tree-shaded streets. Now and then one would see an automobile, the driver wearing goggles and an ankle-length linen coat to protect him from the road dust. Automobiles were becoming more common — there may have been as many as fifty in the city at this time — and were becoming more dangerous as citizens complained of their speeding along at twenty or twenty-five miles an hour. By and large, however, it was still an age when speed was synonymous with fast passenger trains, although some thought that the day would come when the aeroplane — one of which had flown over the valley a few years previously — might equal or surpass the speed of the crack European expresses.

It was also an age of confidence — confidence in the Okanagan, in British Columbia and in the Empire as a whole. Many of the men of the 30th B.C. Horse were recent immigrants

from Great Britain or were first generation Canadians. All were quite conscious of the imperial bond. Many still spoke of England as "home", and their speech, their sports and their way of life in general was patterned after that which they knew and respected in England. Cricket received as much attention as baseball, and afternoon tea was still an institution not to be treated lightly. Gentlemen of some means subscribed to British newspapers and magazines, made periodic trips "home", and tended to think of an "educated" man as one who had attended Oxford, Cambridge or at least the Inns of Court. The Edwardian Era in England found its shadow and no little amount of its substance in the Okanagan. It was a peaceful, thriving era and the future looked promising.

Camberley Staff College Emblem

Commonwealth and foreign students at the Staff College, Camberley, England, may purchase a Staff College emblem, according to a letter received at Canadian Forces Headquarters, Ottawa, from the Director General of Military Training for the British Army.

The emblem may also be purchased by former students of the College who have attended since the Second World War.

These brooches in metal and enamel depict the Staff College badge in silver on a maroon background. The cost is 18/3d each (approximately $2.77 Canadian).

It is emphasized that the brooch is an unofficial memento of a student's year at Camberley: it has no official significance.

The emblem may be purchased from The Secretary, Staff College Club, Staff College, Camberley, Surrey, England.

U.S. Army Plans New Missile

The [U.S.] Army is planning development of a new 50- to 700-mile range missile to replace both the 100-400-mile Pershing and 25-75-mile Sergeant missiles.

The new missile would become operational some time in the mid-70's and would presumably be half the size of the 35-foot Pershing and the 34.5-foot Sergeant.

While the proposed missile will be smaller and easier to handle than its present-day counterparts, Army officials suggest that it will embody no radical changes from them. It will be capable of delivering both nuclear and non-nuclear payloads and, like its predecessors, will be carried on mobile erector-launchers. — *From the Army-Navy-Air Force Journal and Register (U.S.).*

BAND MUSIC ACROSS CANADA

As a contribution to musical education, with emphasis on band music, a total of 143 school concerts have been presented across Canada during the past year by Regular Army military bands by arrangement between Army Commands and the schools concerned.

One such concert was given last March by The Royal Canadian Regiment Band with headquarters at London, Ontario, at Hillfield College, Hamilton, Ont., which includes primary, junior and senior schools.

Several letters of appreciation have since been received from students by Lieut. D. Stannard, CD, LRAM, ARCM, ARCT, Director of Music for the regimental band. Copies of some of them were sent to Canadian Forces Headquarters, Ottawa, and we are pleased to publish extracts from a few of these "thank-you" notes. They reveal a refreshing interpretation and conception of music as expressed by scholars aged 10 to 13 years.—*Editor.*

* * *

"Dear Sirs:

You were not square but I wish you had played 'I saw her standing there'. Compared to some bands in Canada I have heard you were the best. Why didn't you have any guitars? They sound great. *Sincerely, Peter (10)."*

* * *

"Dear Sirs:

This a letter to thank you for your outstanding performance Wednesday at Hillfield College. I am sure that everyone enjoyed the concert very much. After the concert, Mr. Brown, our form master, asked which act we liked best. Everyone said they enjoyed it very much. This is what Jim, a boy in our form thinks of your performance—I think it was the most outstanding band I have ever heard. *Yours sincerely, Gregory (10)."*

* * *

"Dear Sirs:

I wish to thank you for myself, and I'm sure everybody in the school who heard your concert. It was very nice. As for the girls I heard them saying they like the trumpet trio. I liked the story you told. Also I liked the other solos especially Exodus on the saxophone. It was a very interesting concert, and I enjoyed it very much. *Yours truly, Allen (10)."*

* * *

"Dear Sirs:

I liked your concert very much and hope you will come again. I liked very much the story of How Music Was Made and Jungle Paradise. Sorry this letter isn't very long but some century I'll send you another. *Sincerely yours, Ronald (10½)."*

* * *

"Dear Sirs:

I would like to thank you very much for the concert you put on for us yesterday. The favourite one was Exodus and the story of how music began. It was certainly a big change compared to the Hillfield Cadet Band. I hope you had a safe journey back to Ottawa. *Yours sincerely, Ronald (Form 6B)."*

* * *

"Dear Sirs:

Your performance was very, very outstanding and I thoroughly enjoyed

(Continued on page 92)

West Point Turns to Napoleon

Reviewed by Lieut.-Colonel T.M. Hunter, CD

Lieut.-Colonel Hunter is Senior Historian in the Army's Historical Section, Canadian Forces Headquarters, Ottawa. He is author of Marshal Foch: A Study in Leadership *and a recently published work,* Napoleon in Victory and Defeat, *and has contributed articles to Service journals on both sides of the Atlantic.*—Editor.

Interest in Napoleon never dies. Every facet of the man's career — as soldier, diplomat, administrator and lover — has been examined in minute detail. It is over thirty years since F. M. Kircheisen estimated that his own bibliography of works dealing with Napoleon included some 100,000 titles.

The flood continues. In recent years an American historian, J. Christopher Herold, has taken us to Egypt with Napoleon and has produced a broad survey entitled *The Age of Napoleon.* British writers have been particularly active: J. M. Thompson followed up his searching biography, *Napoleon Bonaparte—His Rise and Fall,* with a brief but interesting selection of *Napoleon's Letters;* J. E. Howard has published the first volume of what promises to be a most valuable collection of *Letters and Documents of Napoleon.* More recently, an English historian, Felix Markham, has re-examined the Emperor's career, and a Swedish dentist, Sten Forshufvud, has advanced his theory of arsenical poisoning on St. Helena in *Who killed Napoleon?*

Now the Department of Military Art and Engineering at the United States Military Academy, West Point, has made a substantial contribution to the mountainous pile of Napoleonica. The new work, *A Military History and Atlas of the Napoleonic Wars,* has been prepared by Brigadier General Vincent J. Esposito and Colonel John Robert Elting.*

As might be expected from its title and source, the new volume is no lightweight addition to the library. The authors explain that they have sought to continue the method of integrated text and atlas successfully employed in *The West Point Atlas of American Wars.* Great care has been taken to ensure that the maps and text are complementary: "The text pertaining to each map is specially tailored to fit on the page opposite the map. Thus text and map are conveniently arranged side by side for joint study; only on rare occasions will it be necessary to turn back to another map." It is true that this method has the disadvantage of making the material fit the space, rather than vice versa;

**A Military History and Atlas of the Napoleonic Wars,* compiled for the Department of Military Art and Engineering, The United States Military Academy, West Point, N.Y., by Brigadier General Vincent J. Esposito and Colonel John Robert Elting. Published by Frederick A. Praeger, New York, 1964, and available in Canada from Burns & MacEachern, Ltd., 135 Railside Rd., Don Mills, Ont. $24.95.

but the authors have generally achieved their purpose without grave dislocation of the narrative. The result is a total of 169 relatively detailed maps (in two colours), covering the period from the beginning of the Italian Campaign of 1796-97 to the situation eleven days after Waterloo.

General Esposito and Colonel Elting introduce their *History and Atlas* with concise but illuminating notes on Napoleon's early military career, French organization, weapons and tactics. Of necessity condensation sometimes leads to distortion. The summing-up of Napoleon's role at Toulon ("His plans were approved — no one present was capable of contesting them — and the siege was brought to a brilliant conclusion") does scant justice to the energy of the commanding general (Dugommier) and the senior artilleryman (Jean du Teil). Again, there is no mention of Napoleon's imprisonment at the time of Robespierre's fall — a significant event in relation to the young general's role in the upheavals of 18 Fructidor and 18-19 Brumaire.

Succeeding pages of this impressive volume present a clinical examination of the Napoleonic campaigns. No less than 31 maps are devoted to the Italian operations of 1796-97. Here the young commander first demonstrated his superlative skill in dividing his Austrian and Piedmontese foes and defeating them in detail. We are reminded of the imperfections of the weapon he wielded:

"Like the other French armies, Bonaparte's new command lacked sufficient cavalry and artillery, and was chronically unpaid and short of food, clothing, weapons, and equipment. What supplies the impoverished French government could make available had to filter through an inefficient and corrupt administrative service. Troops kept themselves alive only by plundering the countryside. To enable them to find food, it had been necessary to distribute units widely, and training and discipline had suffered accordingly."

On the other hand, Napoleon acquired the services of one of the great staff officers of history in the person of Berthier.

Beginning with the Battle of Montenotte, the *History and Atlas* reviews the strategy and tactics that took Napoleon twice through the Alps, and almost to the gates of Vienna, in an unbroken series of victories. Unfortunately, their severely military approach to the subject does not permit the authors to bring out Napoleon's corresponding development as a negotiator. It is the young general's amazing record in dealing with Piedmont, Genoa, Naples, Venice and the Papacy, no less than his success as a soldier, that invests his first major campaign with so much interest.

Esposito and Elting provide a detailed study of Napoleon's masterly performance at Ulm and Austerlitz. Although historians have praised his preliminary concentration on the Rhine, the Americans maintain that his supply system was "a mess"; pontoon bridges were not available to carry the *Grande Armée* across the river and, "to the grief of their allies, the French lived largely off the countryside." It is the present reviewer's belief that one compelling reason

for the rapidity of Napoleon's movements was the constant need to find new sources of subsistence for his hungry formations. Like huge swarms of locusts, they quickly devastated any area through which they passed.

Ironically, this same administrative factor was a reason for the Russo-Austrian disaster at Austerlitz. Unable to sustain their armies in the "eaten up" vicinity of Olmütz, the Allies elected to attack Napoleon on his own carefully selected "killing ground". When, with superb timing, the French Emperor launched Soult's great assault on the exposed Allied centre, victory was inevitable. A lucid exposition of Napoleon's tactics is given in the *History and Atlas*. However, it is strange to find apparent acceptance of the myth that many Allied soldiers drowned when the ice of marshy ponds broke under their retreat. Kircheisen, Lachouque and others have clearly established that losses attributed to this cause (the 30th *Bulletin* of the *Grande Armée* claimed that 20,000 drowned) have been grossly exaggerated.

No student of the Napoleonic wars can resist the peculiar fascination of the Russian Campaign. The West Point historians allot twenty maps to these operations. Again, they note that, only a week after crossing the Niemen, the French supply system was breaking down. "The Russian dirt roads melted into mud; supply trains bogged; hungry troops foraged ruthlessly, angering the Lithuanians." But the American history fails to note the close parallel between the events of 1812 and those of 1941: like Napoleon, Hitler sought a quick, decisive battle with the main Russian force; in both cases the latter was saved, not so much by immediate adoption of a Fabian policy of retreat, as by the inefficiency of its organization. Since, however, in 1812 a contributing factor was Barclay de Tolly's firmness in ordering a withdrawal to the east, much against Russian wishes, it is difficult to accept the American view that he had "no real strategic sense".

We must agree with the authors that, in Russia, "Napoleon's ability as a general and a ruler, outstanding as they proved, could not compensate for the impossible demands imposed by time and space." But most readers would have welcomed a more detailed analysis of the reasons for his monumental failure.

The combined effect of the Russian Campaign, the long-drawn-out Peninsular War and the debilitating struggle at Leipzig (1813) wore down the French capacity to resist a Europe in arms. Yet, lacking Berthier and many of his most experienced marshals, Napoleon fought brilliantly in the operations leading to Waterloo. "The morning of 16 June [1815] found Napoleon in an excellent position. Despite unexpected delays, he had surprised, outgeneraled, and outmarched his opponents." In all probability, only his subordinates' subsequent failures prevented him from destroying Blücher and Wellington in detail. The Emperor might then have achieved a temporary stalemate; but it seems unlikely that he could have long prevailed against an aroused Europe, supported by British naval supremacy.

The *History and Atlas* includes useful biographical sketches of the leading French and foreign military leaders. Frequently, there are provocative,

Trotsky in Exile

Reviewed by Major D.J. Goodspeed, CD

The reviewer is employed in the Canadian Army's Historical Section.— Editor.

On the 31st of January, 1933, after hearing of the suicide of her daughter, Zina, in France, Alexandra Trotsky, the first, abandoned wife of the great revolutionary, wrote to the man who had been her husband:

"Our children were doomed. I do not believe in life any longer. I do not believe that [our grandchildren] will grow up. All the time I am expecting some new disaster... It has been difficult for me to write and mail this letter. Excuse my cruelty towards you, but you too should know everything about our kith and kin."

There is no evidence that Trotsky ever answered this letter. There was, indeed, little he could say either to comfort his former wife or to defend himself. Alexandra's fears were only too well founded. All Trotsky's grandchildren left in the Soviet Union disappeared without a trace; Trotsky's son, Sergei, after spending years in one of Stalin's concentration camps, was executed by the G.P.U.; and his other son, Lyova, died in France, possibly murdered by Stalin's secret agents.

Those who have read the two previous volumes of Isaac Deutscher's trilogy on Trotsky *(The Prophet Armed 1879-1921* and *The Prophet Unarmed 1921-1929)* will need no urging to read the final portion of this impressive biography.* In *The Prophet Outcast,* Deutscher maintains the standard of careful scholarship, detailed research, and extraordinarily good writing that marked his previous books. Moreover, probably no other writer in English has Deutsher's profound knowledge of the Russian rev-

**The Prophet Outcast (Trotsky, 1929-1940)* by Isaac Deutscher. Oxford University Press, Toronto, 1963, p. 543. $10.00.

West Point Turns to Napoleon

(Continued from preceding page)

stimulating observations — such as this estimate of Bernadotte: "It is impossible to determine how many of his apparent failures as a corps commander were actually intentional." It is also interesting to be reminded that, as a junior officer, Gneisenau served in Canada during the War of American Independence. Regrettably, there is no index to the volume.

Within the limitations imposed by its scope, the West Point history makes a notable contribution to our understanding of the "mechanics" of the Napoleonic campaigns. Considered even as a ready reference work, this volume is invaluable. The high cost of the *History and Atlas* may restrict its purchasers to affluent collectors and libraries. However, no serious student of these great campaigns can afford to be unfamiliar with West Point's lavish presentation.

olutionary movement of this century and of the personalities who made its tragic and momentous history.

Deutscher views Trotsky's life from 1929, when he was exiled from Russia, until 1940, when he was murdered in Mexico, as the concluding act of a great classical tragedy, and he gives the impression that here, as in the Greek dramas, the cause of the tragedy is to be found in Fate rather than in character. Or, since Fate is a concept not much regarded by Marxists, perhaps it would be more accurate to say that Deutscher tends to hold the impersonal forces of "history" responsible. However, contrary to the custom of the Greek dramatists, who on the whole were content to let their tragic heroes be carried off by the Furies before the final curtain, Deutscher attempts to prove that Trotsky's apparent failure contained "victory in defeat."

Of the defeat itself there would seem to be no manner of doubt. It was not only that Trotsky's family was persecuted and slain, that Trotsky himself was ultimately murdered, or that his supporters within the Soviet Union were ruthlessly wiped out in the Great Purges. These consequences of Trotsky's opposition to Stalin, after all, were no more than the results of a brutal *force majeure*. Posterity might well reverse such a verdict, adopting the persecuted exile's beliefs almost out of compassion for him.

Trotsky's defeat, however, seems to have been more complete than any amount of persecution could have made it. The European working class crumbled helplessly before Hitler's aggression, in spite of all Trotsky's warnings; his Fourth International fizzled out ignominiously; his followers fell away, rejecting not only Trotskyism but also Marxism itself; and the shadows closed in around a system of thought which, in spite of its innumerable valid insights, its grand sweep, and its strong emotional appeal, was already proving itself outdated and of doubtful application.

Trotsky himself remained a staunch Marxist to the end. Yet with the outbreak of the Second World War he declared that "if the war were not to lead to proletarian revolution in the West, then the place of decaying capitalism would indeed be taken not by socialism, but by a new bureaucratic and totalitarian system of exploitation. And if the working classes of the West were to seize power, but then prove incapable of holding it and surrender it to a priviliged bureaucracy, as the Russian workers had done, then it would indeed be necessary to acknowledge that the hopes which Marxism placed in the proletariat had been false. In that case the rise of Stalinism in Russia would appear in a new light: 'We would be compelled to acknowledge that... [Stalinism] was rooted not in the backwardness of the country and not in the imperialist environment, but in the congenital incapacity of the proletariat to become a ruling class. Then it would be necessary to establish in retrospect that... the present U.S.S.R. was the precursor of a new and universal system of exploitation... However onerous... this perspective may be, if the world proletariat should actually prove incapable of accomplishing its mission... nothing else would remain but to recognize openly that the socialist programme, based on the internal contra-

"Guerrilla" Means Small War

REVIEWED BY MAJOR S.R. ELLIOT, CD

The reviewer is employed in the Directorate of Military Intelligence at Canadian Forces Headquarters, Ottawa. — Editor.

There has been an increasing number of books dealing with guerrilla warfare. Some of these are good, others are not so good. Some were written from the point of view of those organizing guerrilla operations or by those actively participating in them. Very few deal with the problem of guerrilla warfare from the other side, that is to say, from the point of view of a member of the force that is charged with the task of suppressing, or at least countering, guerrilla activities.

*Modern Warfare** is one of these. Its author, Colonel Roger Trinquier of the French Marine Infantry, discusses insurgency in Algeria and in

**Modern Warfare* by Colonel Roger Trinquier and translated by Daniel Lee. Published by Frederick A. Praeger, New York, 1964, and available in Canada from Burns & MacEachern Ltd., 135 Railside Road, Don Mills, Ont. $5.25.*

Trotsky in Exile

(Continued from preceding page)

dictions of capitalist society, had petered out as a Utopia.' "

The murderer's pick-axe saved Trotsky from having to make any such heart-wrenching decision. And indeed, there is no real likelihood that, if Trotsky had lived, he would have actually accepted his own conclusion. To have done so would have been to deny a lifetime of revolutionary endeavour, to repudiate ideals for which hundreds of thousands had died, either as martyrs or as victims, and to reject, without the satisfaction of positive achievement or the hope of consolation, the basic tenets of the Marxist faith. Younger, less committed, more open-minded men have indeed done this without destroying themselves. But Trotsky, who had sent the Red Guards to capture the Winter Palace, who had fought and won the Civil War, who had for so long waged an active and lonely opposition to Stalinism — could Trotsky have ever brought himself to confess at the end that Marx, the master, was wrong? It seems unlikely.

In any case, Trotsky's biographer cannot come to such a conclusion. He finds it necessary to believe, in the face of much evidence, that "The West, in which a Marxism debased by Mother Russia into Stalinism inspired disgust and fear, will surely respond in quite a different manner to a Marxism cleansed of barbarous accretions: in that Marxism it will have to acknowledge at last its own creation and its own vision of man's destiny."

Whatever reservations may be made concerning this expression of faith, and whatever undertones of sorrow and doubt may be detected even in its brave affirmation, students of the twentieth century will turn again and again to Deutscher's trilogy on Trotsky, for it is a classic among biographies.

Indo-China, two theatres in which he played a not inconsiderable part. To be more precise, he discusses what he is pleased to call "modern warfare" using Algeria and Indo-China as his examples. He contends that a new form of warfare has developed since the Second World War. This new form of war, also called "subversive" or "revolutionary" warfare, differs from previous forms in that, in his words, "combat actions carried out against opposing armed forces, are of only limited importance and are never the total conflict" and "Victory is not expected from the clash of two armies on a field of battle".

"Modern warfare" has a somewhat different connotation to Canadians, perhaps because we have not been required to fight against the type of enemy Colonel Trinquier describes. Our concept of modern warfare inclines more to the use of nuclear weapons. "Modern", as a synonym for guerrilla, therefore requires some getting used to.

The *Encyclopaedia Britannica* defines guerrilla warfare as a "form of warfare carried on by independent quasi-military groups in connection with a regular war, generally in the rear of or on the flanks of the enemy." There are three forms of guerrilla warfare: firstly, the "rebellion of an indigenous populace synthetically instigated and supported from without"; secondly, "a popular revolt against enemy occupation with some organization and central direction by a recognized authority"; and thirdly, "the activity of bypassed troops". The movement requires at least the passive support of the population and is most successful, of course, when the people are in favour of it.

If one accepts these parameters, it would appear that while the first manifestation fits Indo-China it does not necessarily apply to Algeria. The second form hinges on the words "enemy occupation". The third does not apply to either theatre. In both countries the insurgents had some popular support.

The Colonel states that the aim of insurgent movements is "the overthrow of the established authority in favour of another regime." To do this the aggressor (revolutionary) "tries to exploit the internal tensions of the country attacked — ideological, social, religious, economic — any conflict liable to have a profound influence on the population to be conquered". He claims that heretofore military reaction has been limited to recommendations for the establishment of counter-insurgency guerrillas; he states that no study has been completed on the effects of mass psychological warfare by the insurgents, and that "the rallying of opposition and the study of effective means of protection have been neglected". He identifies the enemy as an "armed clandestine organization whose essential role is to impose its will upon the population", complete destruction of which is mandatory if victory is to be achieved.

The author describes a typical clandestine organization in considerable detail, using the Algerian situation as an example, and outlines the use of terrorism as a method of imposing the insurgents' will on the populace.

There appears to be somewhat of a conflict in the Colonel's discussion of the effect of terrorism. It would appear more likely that control of the civilian

population by terror would only work when there was a complete breakdown of government control and therefore no one to whom the relatives of the victims could turn for justice. Further, one of the major props of our political system is our reliance on the principles of justice and on law and order. It is granted that these principles tend to be somewhat less honoured in times of emergency and in less well-developed countries than our own. However, fighting illegal terror illegally with terror, despite its apparent immediate advantages, soon places the government on the same moral and physical plane as the terrorist and in turn gives that terrorist a distinct and gratuitous propaganda advantage.

Colonel Trinquier deals next with the identification of the adversary. He points out that each member of a group engaged in subversive activity has a niche in the organization, which can easily be established by skilful interrogation. One product of interrogation is the identification of the suspect's associates and the Colonel emphasizes the necessity for speed both in the interrogation and the subsequent follow-up. In this connection he eschews violence, recommending the use of drugs instead.

To assist the security authorities Colonel Trinquier recommends a form of control — or series of controls — of the population to isolate the terrorist organization and make it more difficult for it to exist. Finally, he recommends the establishment of a system of agents within the ranks of the insurgents. However, he makes almost no mention of the dangers or difficulties which would beset a force required to make use of these procedures. For this reason this section of the book appears to be somewhat excessively glib.

The heading to the second part of the book states that it deals with the political and military conduct of "modern warfare". The author deals at some length with the military side, describing the techniques of cordon and search required when one is dealing in provinces, the methods of denying facilities to the guerrilla force, the desirability of keeping him moving and of clearing out his safe areas, and the use of terror. Despite all this he never quite manages to spell out the conditions of the battle for the minds of the population and of the insurgents. Only nine pages deal with this aspect of counter-insurgency and most of these discuss the use of the police apparatus and with their duties relating to arrest and interrogation. There are but four paragraphs in those nine pages which deal with propaganda and the author dismisses this very vital aspect of counter-insurgency with such statements as "Our war aims must be clearly known to the people ... propaganda ... will be ineffective [until we have crushed the terrorists] ... During the period of active operations, the role of propaganda action of the masses will have little effect ... With the gradual return to peace ... propaganda will ... cause ... the masses to understand the ... problems ..."

In my opinion, this is a very weak and unsatisfactory approach to a very critical problem. One of the greatest weapons a government may have in this type of warfare is early, accurate, and truthful news. Without this the people lose faith and courage and the

work of the terrorist insurgent is greatly facilitated. If this portion of the book represents an accurate statement of his views then I submit that Colonel Trinquier has completely missed the key to successful counter-insurgency operations.

Authorities in this field are virtually unanimous in the opinion that all insurgent, guerrilla or revolutionary operations must meet a primary requirement to be successful. A movement must have a cause sufficiently strong to attract recruits and support from the mass of the population. Without an adequate cause the movement will collapse, no matter how well organized it is. A prime example of this may be taken from Greece in 1945-1950. The Communist EAM, and its militant arm, the ELAS, had as its aim the expulsion of the fascist invader. When Germany collapsed so did the mission of the EAM. Having no real *raison d'être* it lost any popular support it had and eventually was suppressed.

The cause does not necessarily have to be a real one. Nor does it necessarily have to be valid. Propaganda can make it seem both real and valid.

Propaganda works for the insurgent. He deals always with intangibles. The government forces, on the other hand, must institute certain concrete measures which can only be described as repressive, representing apparently excessive interference and control. These are necessary measures in order that the insurgent's activities might be made more difficult. Their very existence of these measures gives the insurgent a golden propaganda opportunity.

Colonel Trinquier stated early in his book that the goal of insurgency was the overthrow of the established government and that the main weapon was the influence on the minds of the population. It is not readily understandable why he did not make some more concrete suggestion as to possible counters to the weapon. He seems to have the mechanics of the physical side well in hand. His grasp of the techniques of counter-insurgency operations is unquestioned. But either the intellectual battle is beyond his knowledge or he has managed to convince himself that it is something for someone else to deal with while the army gets on with the war. I submit that he is wrong.

It is unfortunate that the author did not spend more time in describing the recruiting, training and handling of the counter-guerrilla forces he had provided in Indo-China. He is obviously out of his depth in the field of higher control of counter-insurgency operations. In consequence this book is much inferior to such offerings from the Praeger presses as David Galula's *Counter-insurgency Warfare: Theory and Practice* (reviewed in the preceding issue of the *Journal* by Major J.B.J. Archambault) or *Counter-guerrilla Operations* by Colonel N.D. Valeriano and Lt.-Col. C.T.R. Bohannan.

Band Music Across Canada

(Continued from page 83)

it. The music came out loud and clear and all the men in their beautiful outfits were trying their best. The best theme or song I liked the best was the flute solo and the sound of Africa. All the students, teachers, and visitors will never forget your outstanding performance. On behalf of 6B I thank you very much. *Sincerely, June (13).*"

A STUDY IN INSURRECTION

REVIEWED BY LIEUT.-COLONEL B.W.E. LEE, CD

The reviewer is Commandant of the Canadian Provost Corps School at Camp Borden, Ontario.—Editor.

"Rebellions are made by rebels" appears on the surface to be a rather obvious finding. However, after making the statement, the author of this book *The Rebels** distinguishes between rebellions and leaderless popular uprisings. Economic conditions and social pressures are always cited by Marxists as the causes of revolt. These conditions must be present, of course, but no uprising can become a rebellion unless it has been carefully planned, is well organized and supplied and, above all, is competently led. None of these things are possible without the presence of a trained and dedicated rebel.

The author discusses the origin, background, training and character of the typical rebel leader. He introduces studies, including his personal impressions of many of the personalities who have captured the headlines in recent years. Fidel Castro of Cuba, Makarios of Cyprus, Nkrumah of Ghana, HO Chi Minh of Vietnam, Abbas of Algeria and many others are examined and analysed. These examinations cover not only the personalities but their tactics, successful or not, and finally their reasons for becoming rebels.

He goes on to explore these outbreaks, their origins and the weapons employed. What starts rebellions? Who feeds them? Could they have been prevented? Crozier feels that the millions of lives and untold wealth poured out to combat rebellion since the Second World War could have been saved in many cases. He seems to think that given the breeding ground popular revolution waits only for the capable and dedicated leader. When he is produced it is almost inevitable that the rebellion will be successful. History, of course, bears him out! With this background established, he turns to the future and suggests ways and means to combat revolutions.

If it is accepted that a rebellion will be successful, are not governments wiser to meet the rebels' terms across a conference table rather than at the point of a gun or perhaps at the end of a rope? The author's point is that the best way to prevent a rebellion is to remove the causes, but one may be permitted to doubt that it will be easy to remove the rebel. Some revolutions which were bloodless in the beginning have turned into bloodbaths even after success was achieved. This was done by the rebel to consolidate his position.

Other methods discussed are the fighting of revolt by terror tactics. This the author does not recommend but does concede that repression has been achieved by official violence in some cases — Malaya, Kenya and Hungary, for example. The Alternative Leader Principle as employed in Malaya is described as "succeeding

**The Rebels* (A Study of Post-War Insurrections) by Brian Crozier. Beacon Press, Boston, U.S.A. $3.95.

A Reprint Worth Reading

REVIEWED BY COLONEL G.W.L. NICHOLSON, CD (RET'D)

In 1930 Captain Liddell Hart published his one-volume history of the First World War. He called his book *The Real War, 1914-1918,* giving two reasons for this choice of title. Recent war literature, he asserted, had tended to focus attention on the thoughts and feelings of what he termed the pawns of war, as though the reality of war was to be discovered in "the torn bodies and minds of individuals." This trend made it all the more desirable, he contended, to view the late struggle in perspective, disentangling its main threads from the "accidents of human misery." If an examination of the "minds of individuals" was to be made, it should be of those who held positions of influence in cabinets and military headquarters, "not in the ranks of infantry nor in the solitude of stricken homes."

He gave as an even more relevant reason for his choice the fact that the time had arrived when the unparalleled philanthropy with which governments had opened their archives, and statesmen and generals their hearts, made it possible for a "real" history of the war to be written. "It is safe to say," he declared (in 1930), "that most of the possible documentary evidence on the war has been published or is available for the student." (Many historians will be inclined to accept this statement with some reservations—particularly those who have run up against the wall of the British Government's uncompromising 50-year rule on access to secret official papers.)

A Study in Insurrection

(Continued from preceding page)

brilliantly" but to this reviewer it seems to have been employed only after the rebels were on the road to military defeat.

The Rebels is the fruit of years of first-hand observation at the danger points of the world. Mr. Crozier has met many of the rebels discussed in the book and in addition to research has visited Algeria, Indo-China, Indonesia, Malaya and Cyprus. He was born in Australia and is a former overseas correspondent for Reuters, the British news service. He is now on the staff of the Economist and makes frequent appearances on London radio and television.

The reader of this book will learn more about rebels and rebellions than he could obtain from news reports. While many campaigns are discussed and many leaders analysed the amount of detailed information content in the passages is surprisingly great. Beyond that, the author's searching analysis and considered opinions and conclusions are thought-provoking and in some cases illuminating. You may want to argue with him but you cannot help but listen to him.

Now, thirty-four years later, Captain Liddell Hart's history has been reprinted.* Its reappearance follows the present trend of publishers taking advantage of the wide interest in the First World War which has been rekindled with the arrival of its fiftieth anniversary. The author appears satisfied to let his original text stand on its merits, for it has undergone no revision. To many this will be a matter of some surprise, for the book's comprehensive bibliography (it is not otherwise documented) includes no titles appearing after 1930. Thus in a work that particularly stresses the influence exerted on the course of the war by the decisive impressions received and made by men in high places, no account has been taken of the contribution of such post-1930 publications as the *War Memoirs of David Lloyd George,* and *The Private Papers of Douglas Haig, 1914-1919,* to name only two. Of course the author may have had access to these before they went through the press—his bibliography frequently includes "Unpublished Documents" and "Private Evidence". But if such were the case it would have been reassuring to be so informed in the present preface, which remains the same as that to the original edition.

Apart from this obvious limitation, Captain Liddell Hart's account is as well worth reading today as it was when it first appeared. It is no mean accomplishment to tell in 500 pages the story of that widespread struggle on all its battlefronts, including an analysis of the underlying strategy and an examination of the main tactical situations.

There will be some Canadian readers who will wish that the operations of the Canadian Expeditionary Force might have received more attention, a share, say, proportionate to that given Australia's forces. It is a bit disconcerting, for instance, to find no indication that a single Canadian soldier was present at the Battles of the Somme—not even at Courcelette or Regina Trench. Again, while the decisive blow struck by Canadian and Australian forces on 8 August 1918 and the subsequent penetration east of Amiens is allotted more than nine pages, the later bitter fighting from Arras to Cambrai that smashed the formidable defences of the Drocourt-Queant Line and the Canal du Nord rates only a few lines.

Credit must be given the publisher of the reprint for providing a very much improved index. But unfortunately the same cannot be said for the maps. The legibility of a number of these has suffered in reproduction, particularly when what were originally large, fold-out sheets have been reduced to page size—a process in which poor cropping results, for example, in "ALSACE" becoming "SACE". Attempts to doctor illegibilities with some rather crude hand lettering has not greatly helped (in one instance "Caterpillar Wood" has become "Caterpiller Wood"). Good cartographic work is admittedly expensive, but surely it is not unreasonable to expect it at the price charged for this reprint.

The Real War, 1914-1918.* By Captain B.H. Liddell Hart, Toronto: Little, Brown and Company (Canada) Limited, copyright, 1930. Pp. xiii, 508. **$8.00.

The South American Way

To most of us Latin America is an area of proverty and inefficiency, chillies, Spanish and revolution. Many books depict Latin America as an area filled with idle, coffee-coloured natives providing a background for medal-spattered soldiers whose martial ardour cools rapidly at even the remote prospect of possible combat. Such impressions are, of course, fantastic and inaccurate. Yet how does one obtain a more realistic picture?

Most historians deal at length with the long-drawn-out Wars of Independence followed by a further catalogue of riot, revolt, civil war, insurrection, and *coup d'état,* punctuated with the occasional conflict with a neighbouring state. These histories also often contain a good deal of information on the lineage and relationship of the principal characters who fill the public offices of their respective countries. In consequence the writings in this field are generally about as fascinating as a time-table for a railroad line on which one does not intend to travel. Luckily, however, there are exceptions. Professor John Johnson of Stanford University has written one of these*.

His book might be described as a survey course in the social organization of Latin America. By using this approach the author has had to condense and generalize, and so has avoided the two major complaints about conventional histories mentioned previously. The reader will not find a year by year résumé of insurrection. There are only a few key people with pertinent biographical details. Instead, there is a fascinating, tightly written, factual study of Latin America.

The author has adopted the theme that "Latin American officers are first and foremost products of their environments". This is true of course in any society but in Latin America the impact of revolution against the former colonial master was not followed by the lengthy period of peaceful internal development that characterized the United States. In consequence the outlook and nature of the people and of their political institutions is different from that of North America.

Professor Johnson's study includes not only the military background of the countries concerned but also the social and economic factors viewed in conjunction with this militarism. With this background, perhaps the aspect of Latin American affairs which most often comes to our attention is the revolution or *coup* with the attendant reports and speculation as to which dictator will replace the other dictator. Professor Johnson gives a number of examples of the frequency with which these violent changes take place which rather supports one superficial view that Latin America is a continent of revolution. Venezuela had 50 revolutions in the first 100 years of its independence. Colombia had 27 civil wars up until 1903. In two of these, 180,000 people lost their lives. Bolivia had 74 different governments up to 1920. Honduras had 115 governments in the 125 years up to 1950. The list is not exhaustive.

**The Military and Society in Latin America* by John J. Johnson. Published by the Stanford University Press, Stanford, California, 1964. $7.00.

Spain had ruled her colonial empire in the Americas for three centuries. Spanish colonial administration favoured the establishment of independent large landowners ruling estates almost as private provinces. A small regular Spanish army of a few battalions of infantry and some cavalry maintained internal law and order, a tradition which has continued. The colonial militia did not develop until the Peninsular War in 1808 when the overseas possessions were cut off from the mother country. The doctrinal ferment of the French Revolution, brought to the New World by the intellectuals, resulted in general uprisings throughout Latin America.

At the end of the Wars of Independence, Spanish central control was ended. The soldiers, with no military tradition of service to the State, saw themselves as the "front men" for the civilian war profiteer sitting safe and comfortable at home. Officers turned against the people, convinced the ignorant rabble they led that they were being victimized by the civilians, and set what was left of their country aflame. Military leaders or *jefes* arose, gathered forces to their support, and attempted to seize power. Some were successful. Many were not. Their cumulative effect upon their countries prevented the development of political stability so essential during a period of reconstruction.

Constitutions drafted in the post-war period throughout the former Spanish colonies attempted to curb military power. They failed to do so and from 1825 to about 1850 saw a period of anarchy in all the new republics. Force became the arbiter of politics. Civilians raised private armies to combat the "regular" military forces. The rise of the civilian dictator with his private army and a régime which encompassed the whole gamut of totalitarian control is a prominent feature of this period. There was little internal trade, no national communications, little law enforcement except on the part of individual owners of large estates; poverty and corruption was general, democratic principles virtually unheard of.

Those military figures who had benefitted financially and socially as a result of the Wars of Independence tended to support the great landowners who normally were conservative rather than liberal in their approach to social and political matters. In consequence, internal political activities and civil conflict became the chief field of concern to the officer class.

The chief interest of the military at almost every level was power. Professor Johnson quotes a figure of 50% of the national budget of some countries as the allocation to the armed forces. In Mexico in the 1850's the military budget exceeded the total national revenue. Yet it was political suicide to attack or to attempt to "prune" the forces. Expansion was the only way to combat the restlessness of the junior officers who otherwise would resent the normal delays in promotion.

Between 1850 and 1914 most Latin American countries began to concentrate more actively on economic development. Capital became more easily available and immigrants poured into the Americas from Europe. These two factors changed Latin America from an economy based almost entirely on rural agriculture to one with a develop-

ing urban industrial base. This change in the social and economic structure weakened the power of the landowners who gradually were replaced by the industrialists and *entrepreneurs* of the cities. This led to a more stable political climate, chiefly because it came to be realized that business does not flourish in anarchy.

The military were needed to support this new national expansion. Foreign military experts were hired to make existing armed forces more efficient. New weapons were bought, compulsory military service introduced (applicable to the lower classes only — the rich could buy exemption) and the armed forces given a "new look". The army's political bias remained conservative, supporting the landowners, industrialists and the Church against the "dangers" of liberalism. At this time the class struggle began to manifest itself in strikes by labour against the industrialists.

The twentieth century has seen a development of the industrialized urban areas at the expense of the country, continuing the trend begun after 1850. The class conflict has been intensified by the weakness of the economic base and Professor Johnson discusses this at some length. The military are now required more as an internal security police against riots and strikes than as a purely combat force. There has been a shift in the thinking of the officer class. Officers are now encouraged to get a university education. Promotions are automatic so that political and economic pressures are now removed for a sufficiently long period of the officer's life that he develops a vested interest in his career and is therefore less likely to "rock the boat".

The initial pattern was rather different in Brazil, and Professor Johnson's outline of the development of that country is most lucid. The fundamental difference was that Brazil was given its independence. The military did not become the major factor on the political scene until quite late in the country's development. Until about 1870, they were used as a defence force, not as an internal security police organization. After 1880, as a result of changes in the political structure of the country, Brazilian officers followed the example set elsewhere in Latin America. The civil and economic structure, though backward, at least was in existence and operating. The army was neglected, unpaid, and generally regarded unfavourably. It entered the political field unwillingly and since has largely exerted what Professor Johnson describes as an arbitration role. In recent years it has become technologically and scientifically minded and is now regarded, with some considerable justification, as a valuable adjunct to Brazilian development. For many years the army has been largely conservative but Brazilian nationalism is becoming more xenophobic and anti-American. Professor Johnson warns that this trend is one about which Americans should be concerned.

Perhaps the most important chapter in the book is the last one, "Retrospect and Prospect". Strictly speaking, this review could perhaps have quoted the "Introduction" which deals with Professor Johnson's thesis and then quoted large portions of the final chapter to show how he had carried his

The First World War in Pictures

"The shot that was heard around the world": those First World War words have now become almost a classic phrase to describe that sad day—28 June 1914—when a school boy in the Bosnian town of Sarajevo assassinated Archduke Franz Ferdinand of Austria-Hungary and his wife. It thrust the world into some of its most tumultuous years which now have been recorded in an illustrated history by A.J.P. Taylor.*

In the preface, the author says that his "aim has been to see the war in historical perspective. I have tried to explain what the war was about; particularly, to resolve the paradox that men were passionately engaged in the war and hated it at the same time." He has succeeded very well indeed.

The book is a crisp and sometimes bitter review of the events which filled those years. Mr. Taylor is no respecter of persons: the "greats" of that day come under his clinical gaze. ("Let cousinly love prevail: Kaiser William II instructs King George in horsemanship"; "Civilization comes to Africa: burning a native village in the Cameroons"; "Civilization triumphs again: after the gass attack"—this is a sampling of the captions which accompany the photographs, many of which this reviewer has not seen before).

In *The First World War,* the narrative threads the maps and pictures together: it might almost be called a picture-book with a commentary, and for this reason it should be popular with readers who are not particularly interested in detailed military history.

A Fellow of Magdalen College, Oxford, Mr. Taylor's other books include *The Habsburg Monarchy, The Course of German History, The Struggle for Mastery in Europe, 1848-1918, Bismarck,* and, more recently, *The Origins of the Second World War.*—The Editor.

**The First World War: An Illustrated History* by A.J.P. Taylor. Published by Hamish Hamilton, 10 Dyas Rd., Don Mills, Ont. 14 maps, 221 photographs, 224 pp. $8.50.

The South American Way

(Continued from preceding page)

theme through. This, however, would spoil the book for the reader. Briefly, the author feels that the armies of Latin America will stay basically conservative, resisting pressures by demagogues. He suggests that in future they will not be required to defend their native soil but instead should be engaged in developing the backward areas of their countries. Certainly the prospect of the armies of Latin America assisting political stability by bolstering economic development is an appealing one.

The Military and Society in Latin America is an excellent guide. It has a most comprehensive bibliography with short comments upon the sources used. Interested readers will find this an excellent listing of references for further study. Professor Johnson has contributed a great deal in his book to the understanding and knodledge of Latin America.—*Major S.R. Elliot.*

Oxford Dictionary in 5th Edition

The fact that more than 3,000,000 copies of *The Concise Oxford Dictionary* have been sold throughout the world establishes this compact dictionary as perhaps the most reliable publication of its kind.

The fifth edition of *The Concise Oxford Dictionary of Current English* has now been published.* As an introduction, it uses prefaces in the form of extracts from those published in previous editions (in descending order), the last one being dated 1911.

Under "Acknowledgements", Mr. H.W. Fowler, in his inimitable style, writes:

"A Dictionary-Maker, unless he is a monster of omniscience, must deal with a great many matters of which he has no first hand knowledge. That he has been guilty of errors and omissions in some of these he will learn soon after publication, sometimes with gratitude to his enlightener, sometimes otherwise. The first letter we received after C.O.D. appeared was a demand for repayment of the book's cost, on the ground that it failed to give *gal(l)iot,* to settle the spelling of which it had been bought. Even for that announcement of an omission I am now grateful, as affording a good illustration of the less friendly form of correction, and reminding me to assure the public that to one revising for a new edition no correction is (ultimately) unwelcome; all is grist that comes to his mill. At the other end of the scale is the friend, known to me only by correspondence, who for years sent me fortnightly packets of foolscap devoted to perfecting a still contingent second edition — all this for love of the language not as a philological playground, but as the medium of exchange and bond of union among the English-speakers of the world. *Castigavit et emendavit Byron F. Caws* might have stood with justice at the foot of our title-page . . ."

He ends his list of those to whom he is indebted with a rather mournful footnote: "Those whose names are thus marked [with an asterisk] are known to me to be no longer living; and I fear the same may be true of some others whom I have failed to reach by postal inquiries."

The usual indispensable guide-posts are included in the newest edition of this 1558-page dictionary: Pronunciation (Phonetic Scheme, Accent, Pronunciation without Respelling, Inflexion) and Abbreviations. — *The Editor.*

**The Concise Oxford Dictionary of Current English,* Fifth Edition (1964). Edited by H.W. Fowler and F.G. Fowler, based on The Oxford Dictionary. Fifth Edition revised by E. McIntosh, with etymologies revised by G.W.S. Friedrichsen. Published by Oxford at the Clarendon Press, London, and available in Canada from the Oxford University Press, 70 Wynford Drive, Don Mills (Toronto), Ont. 1558 pp. $5.50.

A Recruit — 1797 Style

"A man who was taken up lately for frequently enlisting and as frequently deserting, was asked by the magistrate what *trade* he was. 'An' please your worship,' said he, 'I'm a recruit!'" — *Belfast News Letter, 27-30 January 1797 (courtesy the magazine "Irish Sword").*

Current Affairs Publications

The Canadian Institute of International Affairs continues to provide useful material for students of Current Affairs. The *Journal's* readers may be interested in two recent publications on Canadian Defence policy*.

Mr. Crane's 75-page booklet traces the origins of our present military policy up to and including the recent White Paper and comments on the direction that Canada's defence policy is likely to follow in the years ahead. A selected bibliography is provided.

The purpose of Mr. Reford's 21-page analysis "is not to discuss what Canada's defence policy is or should be... it is to set out some of the premises on which it has been based and to outline some of the procedures and network outlined in its formulation". A short reading list and some questions for discussion are provided. — *Major R.V.B. Caldwell.*

**Canadian Defence Policy* by Crane (Available from the Canadian Institute of International Affairs, 230 Bloor St. West, Toronto 5, Ont. $1.00). "Making Defence Policy in Canada" by Robert Reford. (Vol. XXIII No. 2 of *Behind the Headlines,* December 1963). Available from the Baxter Publishing Co., 228 Bloor St. West, Toronto 5, Ont. Six-issue subscription, $2.00; single copy, 35 cents.

The Real Lost Cause

It is curious that we have such a fondness for our Civil War.

A man from the moon might think that we should be ashamed for having let it happen.

The books seem bent upon portraying it as a romantic, even sublime, event. It was nothing of the sort. Heroism and idealism there were, of course. But mostly it was grime and blood and corruption and stupidity. Its aftermath, as a few wise men foresaw before it began, was the economic destruction of one section of our country with ill consequences abiding even a century later. It left an infection in our bloodstream that still erupts in ugly form.

One of the most tragic aspects of the War was its avoidability. If a hand had not been so eager to jerk the lanyard at Charleston in the pre-dawn of April 12, 1861, the War might never have happened. There were possibilities of avoiding it that a little more time could have developed. — *Howard C. Westwood in "The Real Lost Cause: The Peace Convention of 1861", Fall 1963 issue of Military Affairs (U.S.).*

The Nurturing of Courage

Acquired courage should be nurtured by frequent introspection and constant practice in day-to-day affairs in the shape of courage of conviction, courage of opinion, courage of action, courage of impartial judgement and, lastly, the courage to admit one's faults, flaws and weaknesses. — *Major P.B. Deb in "Anatomy of Courage" in The Journal of the United Services Institution of India.*

FILM REVIEWS

Reviewed specially for the Journal by the Directorate of Information Services, Canadian Forces Headquarters, Ottawa

"Free Films." A directory of sources of free 16-mm. sponsored films in Canada. Compiled and published by Crawley Films Ltd., Ottawa.

Although this is not a film review, it is included in this section as it may prove to be of considerable help to persons responsible for arranging screen programmes for military, quasi-military or civilian groups.

The 32-page booklet lists 380 different sources giving access to more than 14,000 free films. All are 16-mm. and most of them are sound productions. About half are in colour. All films are free but the borrower is usually expected to pay transportation both ways.

The fact that these films bear sponsorship of private firms or industries certainly does not detract in any way from their usefulness or entertainment value. Some of those screened by this reviewer were the best short subjects seen for some time. Top flight producers and technicians are invariably engaged for the production of a film by any company that is prestigious enough to be able to afford a film. Many of the films make excellent "fillers" on a programme and can give a lift to what might be otherwise a dull evening.

Alphabetically the sponsoring organizations run from "Abitibi Power & Paper Company Ltd." to "York Knitting Mills". Subject-wise the range is as broad as the imagination; as wide as the world itself. Some examples are "Travelogue—Capetown, S.A., to London, England", "Diesel Race Car", "The Mayflower Story—Re-enactment of the Historic Voyage", "New Story of Milk", "The Story of Wine in Canada", "The Story of Creative Capital" and "The White Mountains of New Hampshire."

Many of the companies listed provide their own directories, and have whole series of films available.

Copies of the directory are available by writing to Crawley Films Ltd., 19 Fairmont Ave., Ottawa 3, Ontario. — *Major Eric Luxton.*

Beware of Militarism

The military life is lived in order that an authority properly constituted over a significant group of men, such as a tribe, city, nation, state or federation, may be furnished with professional armed forces. If those bearing arms act in ways not consonant with the interest of the constituted authority, or if they usurp its power or dominate it, or in important ways put their own interests first, we have militarism.—*Lieut.-General Sir John Hackett in the Australian Army Journal.*

CANADIAN ARMY ORDERS AND BRANCH INSTRUCTIONS

Listed below is a résumé of Canadian Army Orders and Branch Instructions for the information of military personnel. Details of these orders are available in all Army units. — Editor.

CAO 10-5
Physical Fitness Training
(Issued: 6 Jul 64)

This revision clarifies the policy and instructions governing physical fitness training in the CA(R). It explains medical safeguards which must be observed, and incorporates a new list of sports approved for inclusion in the training programme.

CAO 14-1
Assistance to Civil Authorities, Civilian Organizations and Private Individuals
(Issued: 3 Aug 64)

This revision provides one procedural document and necessary authority to commanders and staffs at all levels when providing assistance or services to civil authorities, civilian organizations and private individuals.

CAO 50-2
Chemical Stills
(Issued: 20 Jul 64)

This revision notifies units having an entitlement to Scales of Issue may operate chemical stills and also reflects the proper designations to conform with the present organization of the QMG Branch and the Surgeon General Staff.

CAO 55-2
Boards of Inquiry—Change of Command
(Issued: 17 Aug 64)

This revision brings the present policy on the handover of Host Country Postage Accounts and Imprest Accounts up to date and makes some editorial changes.

CAO 61-33
Symbols of Military Qualification
(Issued: 22 Jun 64)

This amendment to Annex A reflects the change in nomenclature of British courses required for the award of the symbols G and Y*.

CAO 73-4

Dental Treatment—Dependants and Other Civilians in RCDC Facilities
(Issued: 20 Jul 64)

This revision sets out the conditions and accounting procedures under which dependants and other civilians may receive dental treatment in RCDC facilities.

CAO 76-1
Designation—Canadian Army Stations
(Issued: 20 Jul 64)

This new order lists the Canadian Army stations which come within QR (Army) 1.02 (lxxi).

CAO 79-12
Service Detention Barracks, Detention Rooms and Guardrooms
(Issued: 25 May 64)

This revision of Annex A brings up to date the list of detention facilities in the RCN, Army and RCAF.

CAO 79-17
Administrative Deductions and Barrack Damage
(Issued: 20 Jul 64)

This new order consolidates the content of three previously existing CAOs and brings up to date the amplifying instructions on the imposition of administrative deductions under QR(Army) Chap. 38. It also includes a revised form "Administrative Deductions—Recovery", together with a number of changes in the policy and procedure for recovery of barrack damage

CAO 98-2
Holding and Administrative Lists
(Issued: 20 Jul 64)

This amendment authorizes a Holding List for HQ Saskatchewan Area on assuming the functions of 9 Personnel Depot, now dormant.

CAO 110-1
Units — Formation and Activation
(Issued: 25 May 64)

This new order details the steps required for the formation of a new unit or activation of a dormant unit in peacetime.

CAO 128-36
United Nations Medal
(Issued: 20 Jul 64)

This amendment to Annex A announces that the "United Nations Force in Cyprus" has been designated as a UN formation for the award of the UN Medal; the qualifying period is 30 days.

CAO 130-4
Hygiene and Sanitation — Food Handling and Food Services
(Issued: 6 Jul 64)

This revision prescribes the hygiene and sanitation measures required in food handling and food service establishments, operated by or under the Army, to prevent the spread of infectious diseases.

CAO 143-8
Military Museums
(Issued: 25 May 64)

This revision, which is now applicable to Militia units, notifies the availability of obsolete equipment to military museums and sets out the policy on the movement and storage of museum items when a unit is relocated.

CAO 144-1
Identity Discs
(Issued: 6 Jul 64)

This revision notifies the change of responsibility for identity discs from the Directorate of Records to the Officer Commanding Canadian Armed Forces Identification Bureau. It also includes personnel to whom identity discs are issued, method of issue, replacement and disposition of discs on release.

CAO 174-42
Medical Care — Civilians in Canadian Forces Medical Facilities
(Issued: 8 Jun 64)

This revision outlines the new procedures under which civilians receive

medical treatment in Canadian Forces Medical Facilities.

CAO 174-50
Issue of Drugs and Dressings to Dependants
(Issued: 6 Jul 64)

This new order sets out the conditions under which drugs and surgical dressings may be provided to dependants.

CAO 212-51
Charges for Rations and Quarters — Service Personnel of Other Countries and Civilians
(Issued: 22 Jun 64)

This revision establishes uniform charges for single quarters and/or rations provided to visiting civilian and Service personnel of other countries, and includes a previous tri-Service decision concerning charges to be assessed when DND civilian employees proceed on temporary duty to units.

CAO 212-69
Aircrew Allowance
(Issued: 8 Jun 64)

This amendment to Annex A adds the appointments of Officer Commanding, Ground Training Wing, and Chief Instructor, Tactical Air Support School, at CJATC, to the list of specified continuation flying training positions.

CAO 212-71
Outfit Allowances—Officers and Warrant Officers Class 1
(Issued: 3 Aug 64)

This revision notifies the policy that Outfit Allowance is not payable to an officer on re-enrolment if such re-enrolment is within three years of release.

CAO 213-7
Terminal Benefits
Canadian Forces Superannuation Act
Defence Services Pension Continuation Act
The Pension Act and Deferred Pay Regulations
(Issued: 17 Aug 64)

This revision clearly defines the meaning of the word "forces" as used in the CFSA; informs members of the benefits that may accrue to them under the CFSA on voluntary retirement and the procedure they should follow when considering a voluntary release.

CAO 219-3
Powers of Commanders—Ministerial Designations
(Issued: 20 Jul 64)

This new CAO promulgates in a single order all designations by the Minister of officers to have and to exercise the power and jurisdiction of an officer commanding a command or an area commander.

CAO 219-20
Powers—Designation as Commanding Officers
(Issued: 20 Jul 64)

This revision consolidates the content of three previously existing CAOs dealing with designations of officers as commanding officers.

CAO 225-9
Canadian Army Catalogues of Matériel and Canadian Army Supply Manuals
(Issued: 3 Aug 64)

This revision outlines the policy and procedure for the issue and distribution of Canadian Army Catalogues of

Matériel, Canadian Army Supply Manuals and ancillary publications.

CAO 225-52
Manuals Authorized for the Adjutant-General Branch
(Issued: 3 Aug 64)

This revision notifies the publication of the Canadian Army Manual of Institutes as one manual consisting of five parts.

CAO 242-10
Confidential Reports — Officers, Warrant Officers and Non-Comissioned Officers
(Issued: 25 May 64)

This amendment informs the reporting officer that extreme care must be taken in the preparation of confidential reports to ensure early identification of officers of exceptional promise, and that only those officers who are capable of rising to higher command or staff positions are recommended for staff training. It also provides a rated WO or NCO with the opportunity to attach his signed comments to the confidential report if he does not concur in the remarks of his reporting officer. In addition, only children who qualify under the category of dependants as defined in QR (Army) 209.80 will be listed in Part I of the confidential report. The amendment also permits GOCs to establish the chain of command in the command through which confidential reports will pass, before submission to AHQ.

CAO 256-3
Terms of Service—Officers of the Canadian Army (Regular)
(Issued: 3 Aug 64)

This amendment to Annex B permits the granting of specialist commissions to sergeants of RCAPC who have at least ten years' regular service.

CAO 271-11
Postings to Alert Wireless Station
(Issued: 8 Jun 64)

This new order which supersedes AGI 63/4 sets out the procedure for the posting of service members to Alert Wireless Station.

CAO 273-1
Travelling Claims — Members Authorized to Travel at Public Expense

(Issued: 25 May 64)

This amendment details the policy on travelling time for members using POMC when travelling on duty, posting or detachment posting.

CAO 273-1
Travelling Claims — Members Authorized to Travel at Public Expense
(Issued: 6 Jul 64)

This amendment amplifies the recent amendment to the regulations relating to payment of the allowances for interim lodgings and meals to a member who is single or married and unaccompanied by his dependants; requires a "Certificate of Arrival" form to accompany claims of members who have moved to an elected place of residence on release; and includes the provisions of a Ministerial Order authorizing Service Attachés and members in receipt of Representational Allowance to ship up to 1,050 lbs of baggage in excess of their normal entitlement.

(Continued on page 120)

THE ROYAL CANADIAN ORDNANCE CORPS

Scientific Management Tools in Ordnance

by

Mr. R. Boisseau, B.A., M.Comm.*

The twentieth century has witnessed a marked development of Scientific Management principles and techniques and their more and more common applications since the middle of the century in the various fields of public and private organizations.

This development has arisen from the pressing need for improving the service to customers, increasing the productivity, decreasing costs, providing better control over increasingly complex organizations and systems, and supplying management with current and factual information on which to make decisions.

The Armed Forces of Canada, and chiefly their Supply Services, early became cognizant of this evolution and of the necessity of keeping abreast of and applying scientific management tools in order to provide better service to units and at the same time effect manpower economy while maintaining maximum efficiency.

Although it would be interesting to review the achievements of the various components of the Armed Forces in this field, this article will be restricted to the consideration of some accomplishments in the Royal Canadian Ordnance Corps in general and the applications made at the Regional Ordnance Depot level and in particular at No. 14 Regional Ordnance Depot, Montreal, Que.

It is mostly in the last decade that the Directorate of Ordnance Services has started to establish a concerted programme to modernize existing management techniques and introduce scientific tools of control. Before that there had been the meritorious interventions of some self-trained pioneers in this field and some types of control but these were not generalized and not systematic enough to generate a significant improvement of effectiveness at all levels.

In order to create the necessary cadres for the implementation of this programme, selected personnel were detailed to attend foreign and domestic courses in scientific management and digest the vast amount of literature on the subject. These personnel, to-

**A graduate of the University of Montreal, the author served as a lieutenant with the Canadian Army during the Second World War. He joined the Department of National Defence in 1951 as an auditor in the Chief Auditor's Branch, and from 1952 to 1956 was employed in the Naval Supply Depot, Montreal. He has been Controller at No. 14 Regional Ordnance Depot, Montreal, since 1956.* — Editor.

gether with the specialists previously obtained from private organizations, formed a nucleus of staff familiar with modern management tools and principles. They were also well suited to either direct and supervise the development of management improvement programmes and control systems or to tackle the long-range project of training groups of people in scientific management techniques and principles for future application in their respective area of work.

The use, implications and merits of two of the main scientific tools of management adopted by The Royal Canadian Ordnance Corps will be examined in the following paragraphs.

Systems and Procedures Analysis

The Analysis is basically a scientific means of investigation and appraisal. It involves the use of varied techniques depending on the scope and depth of the planned review. The objective of the Analysis is primarily to make an inventory of and evaluate the paperwork routines and related activities and equipments. This in turn allows the detection of strengths and weaknesses and provides a sound basis for the design of optimized systems and procedures.

To make all this more simple let us say that whatever the techniques employed it boils down actually to the *systematic* approach used in solving any problem, that is:

1. Get the facts.
2. Analyze facts and define the true problem.
3. Find and consider all possible solutions.
4. Select the most appropriate solution.
5. Apply the selected solution and follow-up.

Because of its broad coverage, Systems and Procedures Analysis has been used mostly at Central Ordnance Depots and by the Directorate of Ordnance Services at Canadian Forces Headquarters, Ottawa.

A good example of the extensive use of this management tool is in connection with project ROSS (Reorganization of Ordnance Supply System). The whole of the Supply System was subjected to a detailed analysis. The review revealed that a reorganization was indicated in order to provide better service to consumer units and at the same time speed up the feed-back of information to all levels of management for planning purposes or decision making. The solution selected is to decentralize stocks by placing them in Stores Depots nearest to the main concentration of troops and to centralize their accounting, control and management. The new system, implying the use of Automatic Data Processing Equipment, is capable of coping with additional commitments.

Here, at No. 14 Regional Ordnance Depot, a local application of Procedure Analysis took place in the Return Stores receipt procedure. Under the former procedure, stores returned by units were first taken on charge as non-serviceable after an identity and quantity check. The stores were then passed to another group of personnel for conditioning. Transfer vouchers, reflecting changes in stores condition, had

to be raised and posted. The new procedure reduced the number of accounting documents and minimized the handling required by simply having stores checked and conditioned upon initial receipt from units and by bringing them directly to charge as serviceable, repairable or produce. This way, the elimination of unnecessary work and the combination of operations resulted in decreasing manpower cost while increasing efficiency.

Work Study

Work Study is a term used to describe the systematic analysis of operational methods and their measurement to ensure the best possible employment of human and material resources. On the surface, this seems to indicate that Work Study is a form of whip which is being used to increase productivity and decrease labour costs by the unavoidable reduction of personnel. In fact, this is an entirely wrong outlook and should not be considered descriptive at all.

Work Study is an engineering technique which is directly instrumental in increasing our nation's standard of living. This point can be best illustrated by comparing today's average hourly work week with that of 50 years ago. Wage increases have exceeded the rise in the cost of living while the average working day has been reduced by almost half. Canadians today have more take-home pay and more leisure time in which to enjoy it. Increased productivity and reduced labour costs have most certainly played a great part in this progress.

Investigation and improvement of work operations and conditions is nothing new. Ever since the dawn of time man has been searching for easier and better ways to do things. Even in today's modern army we have the "Suggestion Box" which is simply an incentive plan to encourage creative thinking. In Ordnance, supervisors and workers who have an intimate knowledge of their work are encouraged to make suggestions for improvements. The final responsibility for the methods improvement and work measurement programme rests, however, upon the work study technicians who are trained to work systematically and thoroughly. This also ensures that all areas of work are fully and efficiently covered.

As Work Study is the management tool most commonly used in Ordnance it is appropriate that it be examined in more detail. This brings us to consider the two components of Work Study, which are Method Study and Work Measurement, the Reporting System linked to the latter, the applications made at the Regional Ordnance Depot level and the benefits derived from the programme.

Method Study

Being a portion of work study as a whole, Method Study is defined as "the systematic recording, analysis and critical examination of existing and proposed ways of doing work and the development and application of easier and more effective methods"*.

**Introduction to Work Study, International Labour Office, 1959.*

This definition already suggests the primary objective of Method Study which is to eliminate unnecessary movement, thereby improving processes, methods of working, work place layouts, equipments and the general physical working environment.

This objective is attained mainly by challenging everything that is done at each and every step of an activity, considering in turn the purpose of the activity with a view to *eliminating* unnecessary parts of the job; the place where it is performed, the sequence in which it is done and the person who is doing it, keeping in mind the necessity to *combine* wherever possible or rearrange the sequence of operations for more effective results; finally, the means by which it is done with the aim of *simplifying* the operation.

Work Measurement

The second component of Work Study is called work measurement and consists of "the application of techniques designed to establish the work content of a specified task by determining the time required for carrying it out at a defined standard of performance by a qualified worker".*

This definition indicates that the primary objective of Work Measurement is to detect and eliminate the ineffective time often encountered in the performance of jobs, thereby permitting the measurement of only the valid content of the operation and the establishment of a standard of performance.

There are several different techniques of work measurement. Those adopted by Ordnance are explained briefly hereunder:

Direct Stop Watch Time Study: This technique is almost self-explanatory in that a stop watch is used by the work study technician to accurately time each and every step of an operation being performed at the normal work place. Many readings are taken on each step and the results are averaged out to a total time for the complete job after the operator's pace rate has been taken into account.

Work Sampling: The principles of work sampling are based on the law of averages. The technician makes a number of observations each day in the section under study, noting exactly what is being done by each employee at the exact moment of observation. Over a certain period of time, which is determined by mathematical formula, the number of observations made yields a time value for each operation. The accuracy of the standard is also determined by mathematical computation. As a matter of interest, it may be mentioned that work sampling at the Regional Ordnance Depot level was initiated at 14 ROD in May 1963.

Predetermined Time Systems: This technique was designed by various Industrial Engineers to facilitate the setting of time standards. *Basic body motions* such as reaches, moves, grasps, etc., were studied intensively and an average normal time was assigned to each in relation to the class and the type of motion used. This information was condensed, coded and printed on cards for use by qualified Work Study technicians. With these systems the use of the stop watch is greatly reduced. However, they still have to be supple-

**Op. cit.*

mented at times by other Work Measurement techniques such as the stopwatch time study or work sampling.

Standard Data: Standard data can best be described by explaining its use in Ordnance. It is simply elements of work comprised of a *series of motions* which have been standardized and do not vary to any noticeable extent from one work place to another. For example, the writing of a NATO stock number on a document cannot vary whether it is done in the office or in the warehouse. Nor, for that matter, can it vary whether it is done in Montreal or in Vancouver. Data of this nature is, therefore, distributed among the various depots immediately upon standardization for cataloguing and inter-depot use. Eventually it is believed that Ordnance, with this exchange of data, will build a predetermined time system applicable to the Corps as a whole.

Reporting System

Once a criterion or standard of acceptable performance has been established by work measurement, a way must be found to record what is actually happening. It is when the standard is compared to what has actually happened that unacceptable performance is uncovered and can be acted upon thereafter by management. In Ordnance Depots, a Reporting System has been devised to make known what actually is happening.

This system is based upon the "work centre" concept which requires that the various branches, wings, groups and sections of the depot be divided into operations groups called work centres. Thus a work centre is a group of personnel performing specific assigned work functions under the responsibility of an individual supervisor. For ease of reporting, each work function has been allotted an identity number and a "work unit", the latter consisting of an item of work selected to express quantitatively the work accomplished, e.g., tons, line items.

Personnel report daily, against the identity number of the functions performed, the work units produced and the time expended for each function. This data is forwarded to the Work Study Group which checks, compiles and analyzes statistics reported, establishes performance effectiveness and produces separate monthly reports for action by each level of supervision and management.

The daily and monthly work measurement reports, properly interpreted, provide pertinent information which can be converted to many uses. For instance:

1. The section supervisor gets an accurate account of the amount of work performed by each individual under him. He is then in a position to soundly praise efficient work, decide to further train the willing but unskilled worker, closely check poor performance and distribute the workload more evenly.

2. Through the use of the established standards, the section's personnel needs to match increase or decrease in workload can be regulated on a day-to-day basis. Also, the time required to clear backlogs of work or cope with additional commitments can be determined by simple mathematical calculations.

3. Management can easily compare section's effectiveness, investigate significant differences and assess the supervisor's capabilities.

These points represent only a few of the benefits derived from the analysis of statistics and the use of standards generated by the system.

Applications at the ROD Level

Although the training of work study technicians at the RCOC School commenced in early 1959 it was only in 1961 that some could be assigned to the RODs for the implementation of their work study programme. This gap was caused by reason of the School's numerous and diversified management training and orientation commitments, which slowed down the production of technicians. In addition, the requirements of the Central Ordnance Depots for the work study specialists had to be satisfied first.

However, to counter this delay the Directorate of Ordnance Services decided to start the programme at one of the RODs as early as January 1960 so as to gain valuable experience and save time later on at the four other RODs by reducing duplication of effort at the orientation, planning and implementation stages. No. 15 ROD was chosen as the pilot ROD and, with the assistance of Central Ordnance Depot specialists, time studies on about 90 basic functions common to all RODs were completed and the relevant data passed to the other RODs.

Here, at No. 14 ROD, the planning and training phases started in July 1961 and the work study phase commenced on 1 September 1961. Generally speaking, the standards were set first after adjustments had been made to 15 ROD data to cover local differences in work places layout, working facilities and variations in work content. If any obvious poor procedures or improper layouts were encountered in the work measurement phase, they were studied and corrected on the spot. Thus, the control was established sooner and the method studies and work simplification became a never ending task from that time on.

To date about 70% of the measurable available time has been time-studied using the Stop-Watch Time Study, Work Sampling or the statistical methods and steps are being taken to complete time measurement using also Predetermined Time Systems and Standard Data techniques.

Benefits Derived from the Work Study Programme

By adapting to its own needs a management tool successfully experienced internationally, Ordnance has reaped the benefits associated with the use of work study techniques. The more important benefits are stressed below.

The elimination of unnecessary movement or part of work, avoidable delays or interferences and the improvements of methods, work place layouts and working conditions make the jobs easier and more simple to do. As a result it takes less time to carry them out and the cost per work unit produced is lowered.

Disregarding all others, savings in manpower only, achieved in individual

operations, although large sometimes, are generally small. But, observing that work study can be applied everywhere, in shops, stores and offices, and that benefits once gained continue year after year, one can well figure out their high aggregated value, especially if the whole of the Armed Forces is taken into account.

To illustrate the potentialities of Work Study we can point out that a single work sampling study conducted at 14 ROD in one work centre manned by nine workers resulted in a potential yearly saving of over $4,500.00 in manpower only, and this simply by eliminating ineffective time and slightly improving the methods and workplace layout. Now, this saving, being equivalent to the salary of one worker, means that one man could be diverted to another work area in need of additional manpower. This case supports the statement made earlier in this article that work study is not intended to decrease labour costs mainly by the reduction of personnel but rather by raising the productivity and allowing the undertaking of new tasks at no extra labour cost.

Better Planning and Control

Work Study provides the most accurate means of setting standards of performance on which the effective planning and control of operations depend. We have already seen some of the advantageous uses which can be made of the statistics and productivity rates, i.e., performance appraisal, workload equalization and personnel allocation to work areas as warranted.

The facilities for better planning and control afforded by work measurement have been fully appreciated here at No. 14 ROD when, due to the Civilian Strength Restriction Programme, we had to cope with our normal workload in spite of vacancies ranging from 8 to 10% of the authorized civilian establishment. Reallocation of personnel from work centre to work centre on a daily basis according to priority of needs had to be made and proved satisfactory. And, after awhile, statistics showed that four positions could be abolished.

Another example of what improved work methods and proper planning and control can do is the reduction effected in our requirements for assistance from the Command Summer Training Pool. Whereas it took 3002 man-days in 1962 to perform the special tasks brought about by the issues to and the returns from Farnham Summer Camp, only 1878 man-days were required for 1964. As the relevant workload has not diminished in the same proportion, a substantial actual saving has been realized.

Miscellaneous Advantages

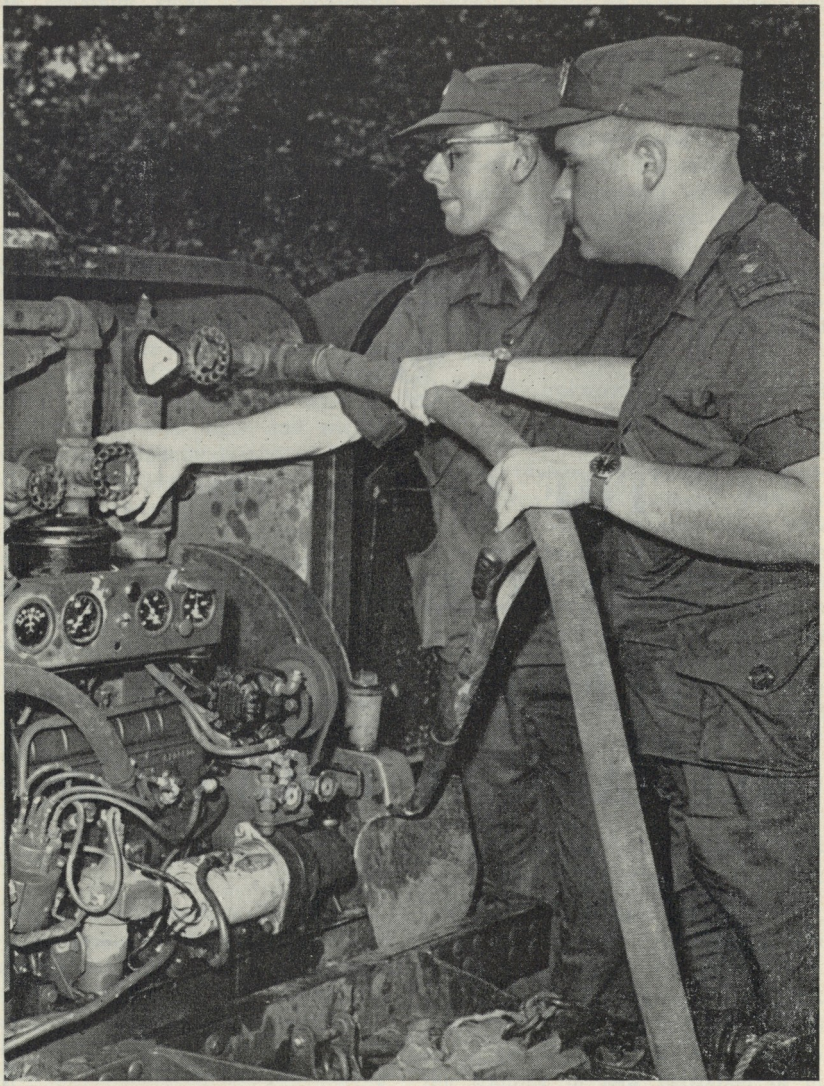
Many benefits are obtained as by-products of work studies. For example:

1. Flaws in system or procedures, poor workflow and "bottlenecks" are revealed.

2. Accurate detailed records of methods of operation are acquired. These are of greatly aid to the supervisor in the training of new personnel or in checking deviations from the approved method of operation.

(Continued on page 120)

THE CORPS OF ROYAL CANADIAN ELECTRICAL AND MECHANICAL ENGINEERS



Checking the water temperature control of the mobile bath unit.

HOT BATHS AND SPARE PARTS!

A REPORT FROM WEST GERMANY

Sennelager, West Germany: A soldier's morale is boosted to a high degree when his equipment is working, his weapons are firing and he can be clean.

Responsible for providing all the stores and spare parts needed to keep the Brigade Group operational is No. 4 Ordnance Field Park, Royal Canadian Ordnance Corps, commanded by Major A.B. French.

The brigade's 16 units are concentrated at the Sennelager All Arms Training Centre for three weeks to complete annual small arms and 3.2 rocket launcher range classification, throw grenades. as well as for day and night field firing practices and sub-unit tactical and logistical training.

An average of 15 men from the Ordnance Field Park take part in the training with other units each day, in addition to issuing and receiving stores and spare parts and operating a mobile bath unit.

At the concentration the OFP has 51 vehicles and 17 trailers, most of which are loaded with stores, spare parts and complete assemblies likely to be needed by the units. These vehicles are the responsibility of the OFP quartermaster and transport officer, Lieut. Douglas Townend.

The 2½-ton vehicles and 1½-ton trailers are tactically dispersed throughout the OFP area. Bins and shelves built into both vehicles and trailers serve as storage space while many bulky and crated items are merely stacked into the trucks and trailer — a veritable "warehouse on wheels". The whole operation could move from location to location at a moment's notice.

Approximately 14,000 different items ranging from radio resistors weighing a fraction of an ounce to a 2800-pound Centurian tank engine are carried. Smaller items are stored in bins, while assemblies such as the engine are stored in their original shipping crates.

Captain John Swayne, officer in charge of the spare parts platoon, estimates his platoon averages 1000 issues a week.

"There was a time when on ordnance storeman could recognize different parts from a description," explains Captain Swayne, "but with all the highly technical equipment and weapons our army has today, our men have to rely a great deal on catalogue numbers." The platoon must provide spare parts for various wheeled and tracked vehicles, both armoured and soft skinned; small arms and infantry support weapons, artillery and the Honest John. There is also a vast variety of wireless communication, surveillance, survey, RADIAC, electrical, optical, cooking, heating and lighting equipment and instruments to stock parts for.

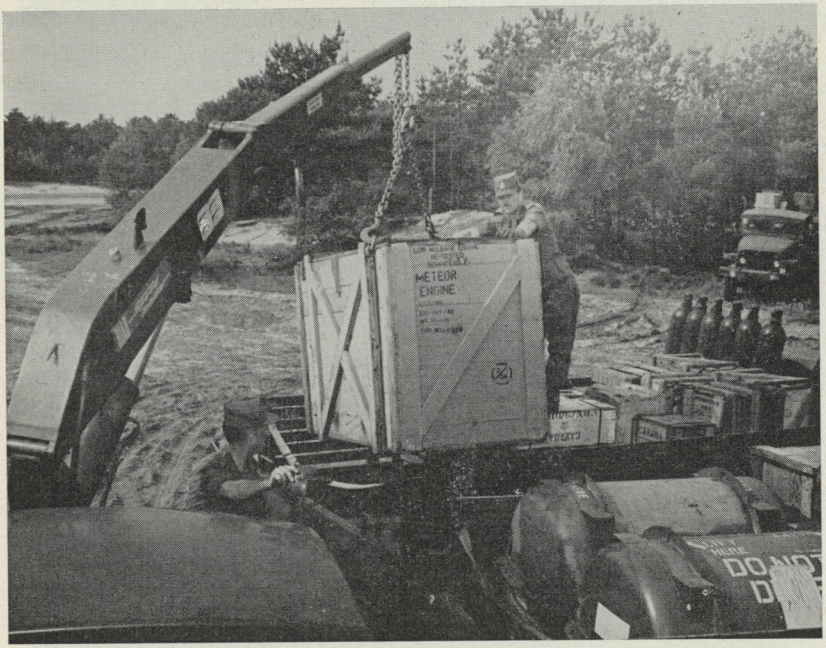
With the many different parts to be held and the limited storage space available, an effective stock control is maintained. The quantities of each item to be held is determined from stock scales established from usage over a given period of time.

There are three major categories of warehousing on the vehicles: binned stores, bulk stores and heavy lift stores. A method for locating the stores is maintained, using index cards in each vehicle for binned stores and a central locating system, plus a load list for each vehicle containing other items.

The exacting work of recording and accounting for all the spare parts is carried out at the stock records section. Sergeant A. Ernst, NCO in charge, supervises 12 storemen clerks. Their office is an office van and a converted 1½-ton trailer.

In addition, there are light aircraft and helicopter parts. Many of these have a limited shelf life because of the strict safety measures required for flying. The shelf life is determined with the age of the item. For example, certain items made of rubber, which deteriorates with age, would not be safe to use after a certain period of time after manufacture. Spare aircraft and helicopter engines are stored in special pressurized metal canisters.

The stores platoon, which handles all stores other than spare parts, is not as busy as it normally is while



Whether it's a half-inch screw or a complete tank engine, the mobile warehouse of No. 4 Ordnance Field Park has it. Here a 2800 pound crated Centurion tank engine is being loaded for delivery to the armoured component of the 4th Canadian Infantry Brigade Group in Germany.

at Sennelager. This is because the units normally draw all their requirements for the three-week stay here before leaving the base camp. These are items such as tentage, clothing, insecticides, toilet paper, stationery, bedding and furniture, to name a few. However, Pte. W. Robinson and the other members of the stores platoon are kept busy enough receiving and checking unserviceable parts returned by units. In addition to issuing general stores, these men are also responsible for backloading for base repairs and any repairable parts or assemblies such as windshield wiper motors and tank engines.

The most popular operation of the OFP is the bath platoon. Approximately 1000 men of all ranks pass through the showers each day after intensive training on the dusty Sennelager Ranges. Pte. Paul Lavoie, keeps a close eye on the operation of the unit, ensuring that there is a constant supply of hot water for the 24 shower heads. About 20,000 gallons of water a day are pumped out of a small stream for the bath unit. Looking after the mechanical operation of the bath unit is L/Cpl. D. Henniger. Before being forced through the shower heads the water is heated to a comfortable 105 degrees Fahrenheit.

In this era of mobility, the Royal Canadian Ordnance Corps makes a major contribution to the operational effectiveness of the brigade in Europe.

Soviet Missile Ships

Four new Soviet destroyers carrying 16 missiles each have been spotted cruising in the Baltic Sea, according to German naval sources.

The exact performance of the missiles is not yet known, but they are described as being larger than the American Polaris submarine-carried missiles.

The missiles do not have a name, but they are carried on new 5000-ton destroyers of the *Kynda* class. Pictures taken by the German Navy show the *Kynda* destroyers to be modern in design and sleek in appearance—except for the eight flat missile-launching tubes. Four tubes lie close to the deck forward and four after and are swivelled so that they can be raised to the vertical for firing.

Each tube holds a missile estimated to be at least 34.5 feet long and five feet in diameter. The latest model Polaris is 31 feet long and 4.5 feet in diameter. It has a range of 2500 nautical miles and carries a one-metagon nuclear warhead.

Behind each *Kynda* launcher is a spare missile, lying under a shelter. Thus each Soviet destroyer can fire a total of 16—the same number as a Polaris submarine.—*Reprinted from the July-August 1964 issue of ORDNANCE (U.S.). Copyright 1964.*

Staff Officer v. Commander

There is a vast difference between being a staff officer and being a commander. The staff officer is never totally responsible — the commander always is. For that reason, although a good commander usually will make a good staff officer, the opposite is not necessarily true. — *General J. Lawton Collins, U.S. Army.*

Scientific Management Tools in Ordnance

(Continued from page 114)

3. Work Measurement provides the means of determining the most economic of alternative methods when other factors are equal.

4. The methods improvement, by lessening fatigue or unpleasant features of work, contributes to the employees' welfare.

Conclusion

In this short article it has been possible to give only a conception of the broad objectives and merits of the more valuable management tools used in Ordnance. Therefore, many aspects have been left out while others have had to be very briefly considered.

After these few years of experience, the goal for Ordnance is to perfect and expand its management improvement programme. An encouragement to do so is implied in the Glassco Report which strongly recommends the application of Work Study to all sectors of the public service and acknowledges the contribution made by the RCOC School in dispensing formal management training.

The reorganization of the Ordnance Supply System now in process will undoubtedly bring changes in the application of the techniques but the principles will remain: *they are the guarantee of efficient and economic operation.*

Army Orders and Branch Instructions

(Continued from page 106

CAO 273-3

Rent or Lease Liability
(Issued: 17 Aug 64)

This amendment introduces reimbursement for rent or lease liability when the move of a member is postponed or cancelled for service reasons.

AGI 64/3

Administrative Policy — Canadian Contingent in Cyprus
(Issued: 20 Apr 64)

This new instruction sets out the administrative policy governing members of the CA(R) selected for duty with Canadian Contingent, United Nations, Cyprus.

The Happy Ones

We deem those happy who, from the experience of life, have learned to bear its ills without being overcome by them.—*Juvenal.*

Management Memo

It is possible to improve procedures—they are printed on paper, not hewn in stone.—*Army Information Digest (U.S.).*

THE CANADIAN PROVOST CORPS

PROVOST MOBILITY

by

CAPTAIN R.C. MOONEY, CD*

The mobility of troops, their weapons, stores and supplies, has, over the ages, been an intriguing question to men of arms. Mobility itself means many things to many people. The meaning for the purpose of this article is "the ability to move quickly from place to place".

Aim

This paper deals with but a small part of the overall question of movement, the subject being restricted to the tactical mobility required of a provost field unit, operating within the normal Canadian brigade group organization. Particular emphasis is placed on the capabilities of aircraft and their use in provost operations.

Introduction

The present provost field unit, the platoon, is a highly mobile entity. Sufficient wheeled vehicles are available to enable the employment of various sub-unit groupings on many and varied tasks. It is capable of quick reaction, which is highly desirable in modern warfare. However, as battlefields grow larger and become less geometric, reaction capability becomes of prime importance. Provost capacity to react must keep pace with new trends, concepts and equipments.

By decree, Charles I of England declared that "A Provost must have a horse..." This was penned in 1629, yet the author obviously had an interest in, and was aware of, the problems of mobility as it affected his military constables. By directing that horses were to be issued to these few, he gave to them a flexibility and capability far exceeding that of the remainder of his army, which moved, primarily, on foot. In this way he obtained better coverage of a given area, using fewer men of the law. The principle involved is basic and might well be carried forward to present-day thinking.

The introduction of the aircraft to the level of brigade group operations has opened up a new tactical dimension, that of vertical space. This dimension is being, and will continue to be, exploited by various arms and services. Increased operational capabilty is offered; concepts within the individual arms and services must keep pace with new equipment as it is introduced, and must have a distinct bearing on the procurement of future equipment.

How does the introduction of aircraft, both fixed wing and vertical lift, affect provost capabilities? The first premise that should be discarded is that the use of aircraft for provost tasks is the "end-all, be-all". Aircraft, to be effective, must be used selectively; also, to maintain operating economy, aircraft should not be considered an integral part of the provost organization. Rather, these vehicles should be available for provost use—if and when

**The author is Area Provost Marshal for Eastern Ontario Area with Headquarters at Kingston, Ont.* — Editor.

the situation and conditions warrant their use. However it is felt that selected provost personnel should be trained as pilots and employed on tasks as outlined in this article. The provost platoon commander would thus be aided in these tasks — the pilot knowing and understanding the requirements involved. They would work as a team and could work concurrently, but separately, towards one common end.

The advantages of aircraft and their accompanying limitations must be considered in light of provost requirements. The aircraft offers speed — the coverage of large areas in a short time. Therefore, where the factor of time and space is essential to the success of an operation, the use of aircraft should be considered. However, the limitations of weather, hours of darkness, landing areas, availability and the requirements of security will have a distinct bearing on the use of aircraft. Reliance on this one method of operation is impossible and impracticable. Knowing how and when to use the equipment and what to use it for must therefore be clearly understood. Requests for their use must, of necessity, be made on short notice thus requiring careful planning and coordination.

Aircraft can, and should, be used for the following provost tasks:

A member of the British Army's Military Police assists the pilot in the landing of a helicopter being used to provide Military Police with more mobility in their reconnaissance, traffic control and liaison roles.

1. Reconnaissance;
2. Traffic control; and
3. Liaison.

Reconnaissance

Reconnaissance, by provost, is the gathering of information required to formulate a control plan.

In nuclear warfare, efficient control of traffic will be even more important than in past encounters. Fighting elements will be required to concentrate rapidly from various dispersed areas, strike swiftly then disperse again before the enemy can react with nuclear fire. To control this system of movement effectively provost methods of gathering timely information must be reviewed and revised.

There are basically four types of reconnaissance: ground, air, map and air photographs. Normally, a combination of methods would be used; however the two prime methods are ground and air, combined with maps and possibly air photographs.

The purpose of reconnaissance is an important consideration. The information required may involve the regulation of traffic, the control of stragglers, estimating the problem of refugee movement, the selection of prisoner-of-war control points or the control of evacuation required if large-scale damage is inflicted within an area. Reconnaissance does not only mean the gathering of information so as to control the move of vehicular traffic: this is a most important and frequent requirement, but provost thinking must also consider the other roles involved. Which method of reconnaissance is best suited to the task?

Ground reconnaissance is the most reliable method of gathering detailed information. It is time consuming, but can be conducted day or night in all weather. It furnishes specific information. Harbour capacities, route surfaces and widths, bridge classifications and mileages can be fully recorded when seen at first hand. Dependence on maps and air photos has one major inherent fault — they may not reflect the current situation. Movement by wheeled vehicles on reconnaissance may afford added security and would be less likely to upset security before an operation.

Reconnaissance by air affords the observer a quick but current view of the entire area under consideration. Vertical-lift aircraft are superior to fixed wing aircraft in terms of provost requirements as they can land, hover and manoeuvre with ease. Details of certain critical points can be checked by landing and moving on foot to the location involved but care must be exercised when playing leapfrog on ground occupied by troops.

Speed and flexibility are thus gained when observing from the air. Lateral routes, possible detours if rerouting become necessary, can be seen readily and many hours which might otherwise have been wasted can be saved in this one instance alone. Relationships between routes can be noted and a large amount of information can be gleaned for possible future use.

Where reaction time is critical air detail and accuracy must be sacrificed. All factors must be considered prior to deciding which requirements are predominant. It must be remembered that the method of gaining informa-

With the cooperation of a Royal Air Force helicopter, a wireless set is delivered to British Military Police. It is to be used is setting up a traffic post required on short notice.

tion is a means to an end, not an end in itself.

Traffic Control

Discounting reconnaissance for traffic control, this portion deals with the actual physical control of traffic. The methods normally employed include route signing, deployment of pointsmen, guides and patrols. Communications weave the web complete, allowing flexibility to meet changing requirements. The trend is away from cumbersome land-based control systems, and an acceptable control now calls for minimum signing and manning of routes. Changes of direction and critical points must still be controlled; however, in the forward areas more reliance is being placed on the individual packet commanders. Operations tend to be more fluid, less reliant on road networks and more reliant on routes across all types of terrain. Control methods must be capable of meeting these changing demands.

To control movement effectively over great distances, covering varying terrain under conditions of darkness and poor weather, demands a high degree of flexibility within the control organization. Frequent changes may be forced upon a commander once movement has begun and planned drills must be available, both within the formation moving and within the provost platoon or platoons control-

ling. All of these considerations and thoughts lead to the old axiom: *maintain a reserve.* Assuming this is possible, the important question now is where should this reserve be and how should it be committed and controlled if required?

Problems that require solving before a control plan could be considered safe would include the conditions under which movement is to take place (daylight or hours of darkness), distances, routes, electronic silence, what type of operation is involved, the air situation plus most other normal factors considered in a movement control appreciation. The answers lead to methods of control available.

Once again we consider air. Control can be affected from the air if aircraft can fly and if radio can be used. Even during hours of darkness, an aircraft can be effectively employed as a quick-moving communications platform. A multitude of critical points can be covered in a short time and reserves, if properly placed, can be quickly committed once the requirement is known. These reserves, rather than being squandered across half a battlefield in penny packets should be grouped in fast-moving sub-units spaced equidistant from potential major trouble spots.

Under the present system of allocating pointsmen, a great number of men, singly or in pairs, are strung along a route or routes, the majority completely out of touch once they have received their orders and have left the "nest" of platoon or section control. An example of this occurred this summer during an exercise in Europe. Signing parties and pointsmen were dispatched to their positions just prior to a brigade move. A change occurred, the move direction was altered and radio silence was imposed. A small provost reserve was available to cover the new route but they could not have possibly arrived in position in time to have any bearing on the move if they moved by road. Visions of units swarming unknowingly and individually all over the "battlefield" were voiced.

As conditions permitted use of aircraft, two C112 helicopters were requested. Two pointsmen were loaded into one, and another pointsman with the provost platoon commander clambered aboard the other. The forward point of progress of the move was calculated and one man was dropped off just ahead, beside a lateral route, where he could change the direction of the up-coming units. Another was deposited at another lateral and a third on a change of direction onto the new route.

On the return flight, points which were covered but no longer required received verbal instructions on new tasks as a helicopter swooped down to ground permitting a quick conference. The total time elapsed — 35 minutes, and not one word was uttered over the radio net. Small scale — yes, but effective. It is on this scale that provost capabilities lie.

Naturally, control of traffic from an aircraft can be effected relatively easily during daylight hours and when radio communications are permitted. Problems, flow, capacities and errors can be quickly seen from the air and instructions passed to ground control points so that adjustments can be effected rapidly. It is during darkness and periods of radio silence that the use of aircraft may not be fully jus-

A Dispatch Rider and two other members of the Military Police wait while equipment is unloaded from the helicopter on the right. The men and the motorcycle have just been flown in by the aircraft.

tified. As pilots become more experienced and provost deployments drills become adjusted, night flights can be considered if reserves are positioned where aircraft can be readily "brought in" by visual signals.

Control of traffic from an aircraft is a new practice. Experimentation and coordination are now required to make this practice fully effective.

Liaison

The requirement to meet with others, and to be able to discuss control details is an important and often neglected area of field operations. Time is rarely available to travel the distances involved merely to "drop in" on various agencies related to provost requirements. Yet the success of an operation might well depend on the information gathered or passed and operating procedures agreed to during these liaison visits.

As Canadian forces probably would not, in medium to large-scale encounters, operate as a national entity, the frequent meetings with cooperating forces of other nations is imperative. Formations beside, ahead of, or behind our own might well have different procedures and drills and understanding can only come through discussion. Knowing your neighbours may well prove to be the key to the attainment of a particular goal.

Travel by road to effect liaison, be it with other forces, units or civil police, can be coordinated with other tasks such as reconnaissance or supervision. However, the whole is extremely time-consuming and usually means that a platoon commander is away from his unit for considerable periods of time. By coordinating tasks, producing a liaison plan coupled with air transportation, a platoon commander can reduce his periods of absence to a reasonable level.

Again an example from an exercise in Europe: a night move of the brigade was planned. By noon of the day involved most information required for planning was available. However, as the move was in concert with forces of two other nations and there was the added civil traffic problem (that would probably not exist in wartime but will be considered here) liaison was required.

To travel by road would have involved about six to eight hours, bringing the return time past the time the move was to begin. A liaison plan was drafted, timings were gauged to air travel and rendezvous selected and passed to persons involved. A helicopter was made available and the entire task was completed in just over two hours. The move was successful and no problems were encountered between participating forces. Everyone knew their responsibilities and knew what the other fellow was doing as well!

The Future

So far discussion has been restricted to provost capabilities and thoughts using aircraft now in service. Many avenues remain to be explored with this most versatile equipment; but to project thinking one step further — where do we go now?

During this century the dimension of air has extended the range of warfare. It was during the Second World War that the marriage between ground and air operations took place. Troops were moved directly into battle by air; supply was by air. However, airborne units still required the ground force to link up with them — the umbilical cord concept — and once on the ground they depended on this ultimate joining with a ground force to be fully successful. The present-day concept envisages air assault units going into and coming out of action by air and being considered as independent tactical entities.

Within allied armies, and particularly in the United States forces, experiments with air assault units, using vertical lift aircraft as prime movers of men and matériel, are far advanced. According to reports, concepts are still moving far ahead of equiment capabilities or procurement. However, in the light of provost organization, the requirement for aircraft capability has been met in a helicopter, the U.S. Iroquois — the UH 1 D. This aircraft, or one similar to it, provides the required link between thoughts and capability. It can carry 11 passengers, yet is relatively small and manoeuvrable.

If this type of aircraft were to become available, provost would be capable of moving reserves where urgently required in sufficient numbers to make their use effective. The problem of time and space would cease to be the thorn it has now become.

Deployment drills and operating procedures would require alteration but this would easily follow once trials were attempted by those on the ground.

Conclusion

This paper is intended to stimulate thought, amongst those concerned with the problems of mobility of control organizations, regarding the vast expanse of unexplored space above them. The use of aircraft for this purpose has been a local hit-and-run proposition. Trials should be seriously attempted to further the knowledge now available.

There's nowhere else to go but up!

UNEF's Military Police

Although the United Nations Emergency Force is a multi-national peacekeeping force, the participating contingents have their separate identities, clearly outlined sectors of operation and a distinct way of life.

There is one unit, however, which is an exception to this rule — the 70-man UNEF Military Police Company in the middle East. A fully-integrated unit, it has men and officers drawn from all the six contingents of UNEF. Barring the Indian Independent Provost Section, which has its own quarters and messing arrangements, all others share unit quarters and messing and recreational facilities at all detachments.

The Indian Independent Provost Section is included in the UNEF Military Police Company for military police functions only. It is a self-accounting unit of 22 persons.

Diverse Tasks

This unique and truly multi-national unit has the delicate job of policing an international force. Its field of operation ranges from traffic control; enforcement of UNEF orders and regulations relating to discipline, investigation of offences, accidents and internal security within UNEF, to the destruction of dogs and other pets in UNEF camps on rabies control patrol.

Just as its tasks are diverse, its field of operations is spread all over the Gaza Strip and the Sinai and outside in Cairo or Beirut wherever the Leave Centre is.

The Headquarters of the Company with Special Investigation and Traffic Sections are located in Gaza. Its three detachments are at Gaza, Rafah and at the Leave Centre.

Nowhere in the world is the task of a law enforcing agency a simple one. In UNEF the complications are much more as each participating contingent is governed by its own laws and the members of the UNEF Military Police have to fully respect these laws.

Powers of Arrest and Custody

The tough-looking members of the Company wearing the "MP" brassard have powers of arrest and custody of

any member of the Force other than an officer, Indian Junior Commissioned Officer or a United Nation's internationally recruited staff member. Those exempt from arrest may be presented to the Chief Administrative Officer, Headquarters UNEF, in the case of internationally recruited staff, or to a senior officer of an officer's own contingent, who is informed of the circumstances of the case.

But these powers have to be exercised with great caution. The members of the Force know that their job primarily is one of preventive policing — investigating and reporting to the Military Personnel Section about all incidents, whether serious or minor involving UNEF personnel and property and preventing incidents by their physical presence in the areas frequented by UNEF personnel. The local civilian police have no jurisdiction over UNEF personnel.

The presence of an "MP", whether at the Customs checkpost at the Gaza Airport, at the International Frontier in Rafah, or at any scene of an incident involving UNEF staff, is most reassuring. His gentle manners and courteous approach make an otherwise misunderstood profession most pleasant to deal with.

Canadian Commander

The unit was headed by Major R. T. Grogan of Canada until 28 February. It is now commanded by Major D. C. Martin also of Canada. Both Major Grogan and Major Martin are old hands in their profession. Major Grogan has been a Provost Corps officer since 1951. Major Martin became an officer in 1951. The Deputy Provost Marshal is Captain M. S. R. Rao, of India. He is serving his third year as a Provost officer. In India while the other ranks are permanent members of the military police, officers are deputed from various regiments on a three-year assignment.

The integrated nature of the unit is fully in evidence in the composition of the Provost Company. Apart from the 22-man Indian Independent Provost Section, the unit has 16 Canadians, five Swedes, five Norwegians, seven Danes, two Yugoslavs and eight Brazilians. The Indians provide three military policemen to the Gaza Detachment, two to the Rafah Detachment, two to the Leave Centre Detachment and one for the Identification Section. — *From "The Sand Dune", the UNEF Weekly.*

Combat Support is Role of Signals

Everything we do in communications training finds its justification in the support we give the commander. Our mission [the U.S. Army Signal Corps] is combat support — making command control not only possible, but timely, reliable and secure. In this role more than intricate machinery and engineering ingenuity is needed — alert and capable communications are essential. The only way we in the [Signal] schools can continue to provide such men is to keep not merely abreast of the present — but one step ahead of the future. — *Brig.-Gen. John C. Monahan, Commandant, U.S. Army Signal School, Fort Monmouth, N.J.*

POSTINGS, APPOINTMENTS AND RETIREMENTS

Listed below are postings, appointments and retirements for Regular Force officers of the Canadian Army of the rank of Lieutenant-Colonel and above, effective on the dates shown. This information was prepared specially for the Journal *by the Directorate of Information Services from information supplied by the Directorate of Army Personnel, Canadian Forces Headquarters, Ottawa.* — Editor.

Brigadier

Knight, A.F.B., from Comd HQ NB Area to retirement, 1 Feb 65.

Tedlie, A.J., from Comd HQ 2 CIBG to Comd HQ Nicosia Zone, Cyprus, Apr 64.

Colonel

Amy, E.A.C., from D Armour to Comd HQ Cdn Cont UN Cyprus, Mar 64.

Croskery, H.W.R., from 11 Pers Dep (HMCS Naden) to CO Toronto Mil Hosp, 12 Jul 64

DeFaye, T., from FF Sec C&D Estb (NDC) to UNMOG(IP), 19 Jul 64.

Derby, A.C., from Chief Surg CFH Kingston to retirement, 30 Sep 64.

Dick, W.C., from Comd HQ CBUE to Dir Hist Sec, Aug 64.

Edwards, L.H., from NDMC to Comdt CFMSTC, 31 Aug 64.

Green, D.G., from Comd 57 Cdn Sig Unit to HQ West Comd, Jun 64.

Hitsman, J.S., from CO Toronto Mil Hosp to 1 CBMU, Jul 64.

Hood, A.O., from Chairman AEC/Dir DMCM to retirement, 17 May 65.

Jackson, R.B., from CO 14 Dent Coy to CO 15 Dent Coy, 5 Jul 64.

Lieutenant-Colonel

Amyot, P.E., from CFHQ Sec SAS List to retirement, 13 Apr 65.

Anglin, W.W., from Sr Clinician 15 Dent Coy to CO 14 Dent Coy, 31 Jul 64.

Ballantyne, E.A., from GSO I Office of CE to CAS(W) Sec C&D Estb, 9 Aug 64.

Bates, W.F., from AAG D Adm to MCCD Viet Nam, Aug 64.

Bell, G.G., from CAS(W) Sec C&D Estb to DMT, 16 Aug 64.

Bennett, W.L.L., from 1 Pers Dep to CO 6 Det RCAMC, 26 Jul 64.

Besley, J.K., from NDMC to 13 Pers Dep, 30 Jun 64.

Blyth, D.W., from GSO I DMO&P to UNTSO (Palestine), Jul 64.

Brett, A.C., from GSO I CAS(W) Sec NSAWS to retirement, 27 Apr 65.

Brooks, R.N., from 26 COD to retirement, 21 May 64.

Brown, H.L., from Army Rep Jt Int Staff CSS&JS to retirement, 31 May 64.

Brown, W.J., from DAA&QMG HQ Calgary to CO LdSH(RC). Prom 26 Apr 64.

Burton, J.F., from Sr SO TAHQ Calgary to AA&QMG HQ Sask Area, 12 Jul 64.

Cameron, J.R., from SSO TAHQ Ottawa to UNTSO Palestine, 26 Apr 64.

Carpenter, G.E., from CO Que Comd Pay Office to retirement, 7 May 65.

Charman, F.D., prom 1 May 64.

Christian, A.S., from CFHQ Sec SAS List to retirement, 10 May 64.

Cook, J.V., from ADST to AA&QMG HQ Cdn Cont Cyprus, Mar 64.

Cook, J.A., from Comd & SSO TAHQ Victoria to retirement, 4 Mar 65.

Coolen, E.A., from CAS(W) Sec C&D Estb to GSO I DCD, 7 Jul 64.

Cullen, F.R., from 6 Pers Dep to 1 Pers Dep, 30 Jul 64.

Cunningham, D.H., from DDMT to AQMG HQ East Comd, 26 Jul 64.

Davidson, A.M., from CAS(W) Sec C&D Estb to Chief of Surgery CFH Kingston, 30 Sep 64.

Dobson, J.F., from Comd HQ Ft Churchill to DDSO&P (no date).

Evans, J.F., from Atlantic Med Reg to 1 Pers Dep (CFH Halifax), 26 Jul 64.

Farnell, R.S., from DD Arty to MCCD Laos, Jul 64.

Featherston, H.W., from Surg Gen Staff to CO 1 CMED. Prom 27 May 64.

Fejl, R.A., from 13 Dent Coy to 15 Dent Coy, 12 Jul 64.

Fort, T.C., from 1 Pers Dep to CFH Kingston, 19 Jul 64.

Gardner, J.C., from RMC SAS List to DDMT, 19 Jul 64.

Garneau, J.C.A., from CALE to CO 3 R22eR, Aug 64.

Graham, C.H., from AQMG HQ Que Comd to GSO I HQ Que Comd, 5 Jul 64.

Graham, R.S., from FF Sec C&D Estb (NDC) to UNMOG(IP), 23 Aug 64.

Grant, I.M., from CO LdSH(RC) to CAS(W) Sec C&D Estb, 3 May 64.

Grant, W.E., from AA&QMG HQ Sask Area to CAS(W), 2 Aug 64.

Harper, D.A., from AAG HQ West Comd to AQMG DQOP, 16 Aug 64.

Hazen, J.D., from Comd NWH Maint Estb to AD Wks (no date).

Holliday, W.J., from AQMG DCER to retirement, 1 May 65.

Hunden, D.J., from HQ BC Area to member AEC D Org, 16 Aug 64.

Huot, J.A., from AAG D Org to UNTSO Palestine, 28 Sep 64.

Jones, F.B., from CSO 57 Cdn Sig Unit to CO Vancouver Wrls, Jun 64.

Jordan, A.R., from MCCD Laos to retirement, Mar 65.

Kettyls, H.R., prom 1 May 64.

Kirk, G.T., from CO & Comd EME HQ RCEME East Comd to CO 204 Base Wksp, 24 May 64.

Lamy, J.E.A.J., from GSO I DCD to AQMG HQ Que Comd, 5 Jul 64.

Lauziere, J.A., prom 14 Apr 64.

Lawson, Q.E., from DPM to Incr A HQ CCUNCYP, May 64.

Leclaire, Y., from CO 2 Fd Amb to 4 Det RCAMC, 16 Aug 64.

Leger, F.A., from Office of JAG to DJAG HQ 1 Air Div, Aug 64.

Lizotte, A., from Surg Gen Staff to 4 Pers Dep, 23 Aug 64.

Loutit, J.A., from CAS(W) C&D Estb to retirement, 25 Oct 64.

Lynn, S., from Dep Dir AEEE to retirement, 21 Mar 65.

Macdonald, A.L., from MCCD Laos to AAG D Org, Oct 64.

Maskell, F.G.B., from TSO I DEE to retirement, 22 Mar 65.

Mayer, P.A., from 57 Cdn Sig Unit to GSO I DSO&P, Jun 64.

McIndoe, D.H., from GSO I HQ Que Comd to CAS(W) Sec C&D Estb, 5 Jul 64.

Mills, A.M., from Comd and SSO TAHQ Edmonton to retirement, 31 Mar 64.

Milne, A., from CALE Sec C&D Estb to CO HQ RCOC West Comd, Aug 64.

Moore, T., from MA Perm Rep of Cda to UN to retirement, 18 Apr 65.

Newton, R.E., from UNTSO (Palestine) to AAG HQ Central Comd, Oct 64.

Paris, R.G., from AD Wks to retirement, 12 Apr 65.

Paterson, P.J., from TSO I CADEE to TSO I AEEE, 5 Jul 64.

Potts, R.W., from DDSO&P to MCCD Viet Nam, May 64.

Price, J.G., from SSO TAHQ Windsor to MCCD Viet Nam, Apr 64.

Protheroe, D.H., prom 14 Apr 64.

Pullen, A.J., from SSO TAHQ Hamilton to ADST, 5 Jul 64.

Reed, L.M.K., from AA&QMG HQ CBUE to Dep Chairman AEC DMCM, Jul 64.

Reed, W.A., from CO 4 Fd Amb to CO 5 Det RCAMC, 30 Aug 64.

Richard, M.J.M., from CO 3 R22eR to AAG D Adm, 28 Aug 64.

Richards, R.S., from GSO I (DS) CASC to Army Rep Jt Int Staff CSS&JS, 16 Aug 64.

Robertson, D.K., from AAG D Pers to retirement, 17 Mar 65.

Robitaille, R.J.A., from CO Ft Churchill Mil Hosp to NDMC, 30 Jul 64.

Rogers, R.A., from GSO I DMO&P to retirement, 24 Mar 65.

Tackaberry, R.B., from AQMG HQ East Comd to GSO I DMO&P, 3 Aug 64.

Taschereau, J.P.L., from SSO TAHQ Quebec to CAS(W) C&D Estb, Aug 64.

Temple, J.B., from Dep Comd 26 COD to retirement, 31 Mar 65.

Thurlwell, W.N., from CO 1 CMED to Surg Gen Staff, 27 May 64.

Van Vliet, G.A., from 1 CBMU to NDMC, Jul 64.

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