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The views expressed in the articles in this Journal are the author's own and do not necessarily represent General Staff opinion or policy.



Photo: Australian War Memorial, Canberra.

FRONTISPIECE

On 21 July 1942 a strong Japanese force landed in the Buna-Gona area on the north-east coast of New Guinea and advanced by the Kokoda Trail over the Owen Stanley Mountains with the object of capturing Port Moresby. Initially Japanese superiority of force enabled them to push back the Australian opposition to the western side of the mountains. Then the reinforced Australians seized the initiative and drove the Japanese back to their beach head where they were eventually destroyed.

Great difficulty was experienced in evacuating the Australian wounded. Until the counter-offensive reached Kokoda there were no airstrips available and the Trail was impassable for vehicles. Badly wounded men were carried long distances by native bearers, while walking wounded had to make their own way back as best they could.

The picture shows a Salvation Army officer lighting a cigarette for a wounded soldier. Sticks like the one carried by the man on the left were commonly used by walking wounded to help them along the steep and difficult trail.

COLUMN SUPPORT

By

ARMED HELICOPTER

Captain William P. Griffin,
US Army.

Reprinted from the Oct. 1963 issue of US Army Aviation Digest

CHARRED REMAINS of nine vehicles blocking the road made Captain Jones, the new company commander, wince as he looked out at the ambush site that had caused the death of his predecessor.

One swift, violent engagement had changed Alpha Company from a full strength organisation of fine fighting men to a unit of reduced strength and low morale.

The need for better planning and training to meet any future combat of this type was plainly indicated. Captain Jones was trying to absorb all the details — the area, the type of terrain, the firing positions, the plan of ambush, and all the other fine points of this attack.

He had talked to the officers and men who had been in this action and made them repeat all of the details they could recall. He was trying to dissect this ambush for all of the learning points he could gather, and then if it happened again while he was in command, the company could deal with this enemy in a way that would end their attacks once and for all.

Captain Jones was boiling. He cursed inwardly at the mistakes

made by the former company commander. Yet he realised that any commander could have suffered the same defeat if he were not fully prepared for this type of combat.

In his mind he could picture the smirking, smug faces of the guerillas now safely hidden some distance away. The thought of those silent butchers feasting on American rations and boasting of their easy kill turned his stomach.

This was not the work of bandits and overnight raiders, but a tactical attack, well planned and well executed by a trained, disciplined force. The guerillas in this area deserved a lot more consideration than he had previously given them.

After inspecting the area, thoroughly interviewing his men, and interrogating the local natives, he was able to visualise what had happened.

The site had been a narrow road with a half-mile downgrade. At the bottom of this downgrade a bridge spanned a small stream. The hills to the right and left of the road were not jungle, but vegetation was thick enough to conceal a large body of men.

The ambush had begun when the bridge was detonated under a tank in the advance guard. The point had been allowed to pass over the bridge and then had been taken under fire by a containing group further up the road.

The main body of guerillas had opened fire on the 20 vehicles closed in the trap. The guerillas had dropped an abatis across the road at the rear of the main body of the convoy to seal in the trapped vehicles and to block the rest of the convoy.

But the guerillas had underestimated the strength and aggressiveness of the point and this, plus the indirect fire weapons within the convoy, had finally forced them to withdraw.

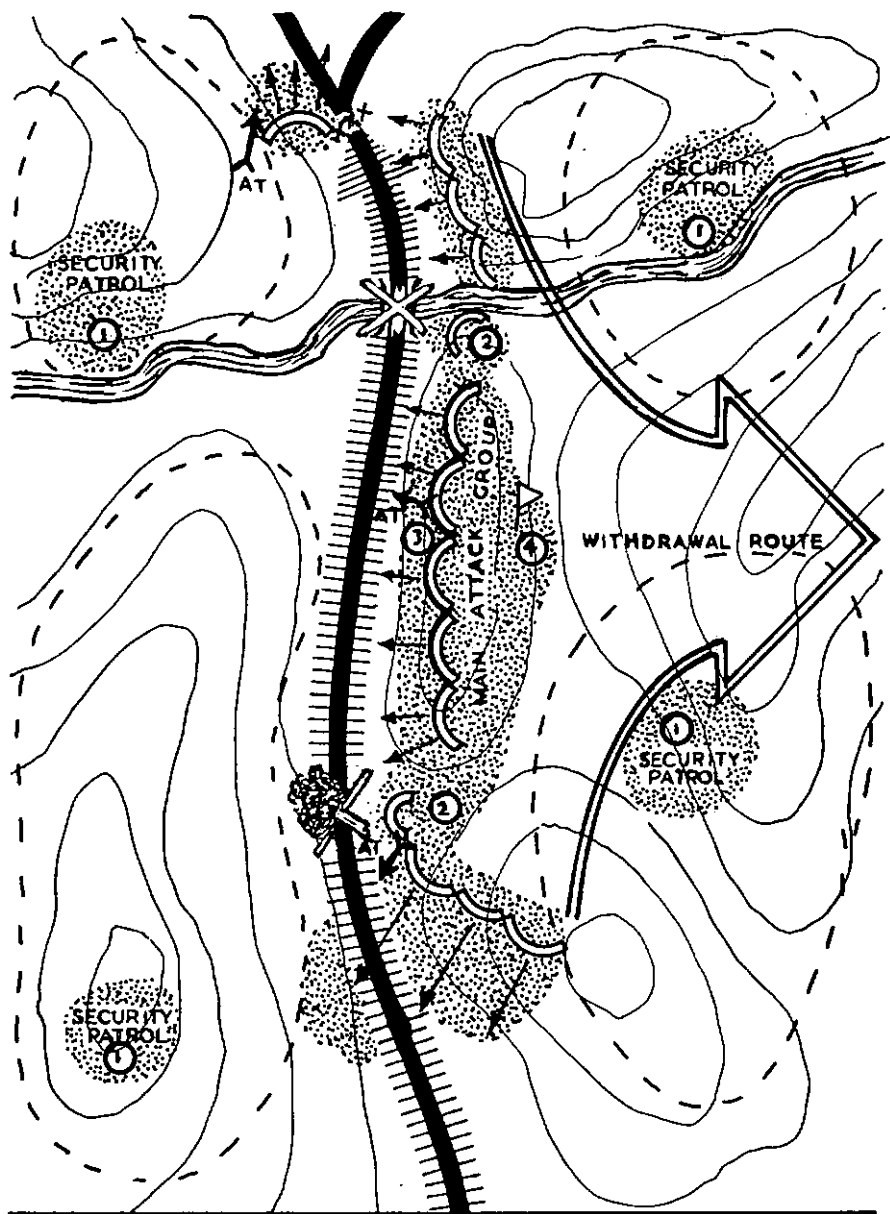
After the explosion signalled the destruction of the bridge, the point had immediately opened fire along the sides of the road. This fire had dispersed the guerillas who were assigned to destroy them. The point then had returned to the bridge and taken all possible targets under fire. These fires enabled the noncoms in the lead vehicles to gain control of their men and begin laying down a base of fire. The additional fires from the 81mm mortar established fire superiority, and the guerillas withdrew.

Upon returning to battalion, Captain Jones again studied the ambush minutely to correct any similar trouble in the future. He had inspected the terrain; analysed the conduct of the attack and the tactics employed, the conduct and disposition of the company in this action, its organisation, and all the details

his officers and noncoms could recall. He realised that every action of this type would be different, yet similar. The guerillas would probably organise an ambush along definite set tactics, only varying organisation and disposition according to target, terrain, and available weapons. Their basic unit would probably always contain a security party to seal off the area, a blocking group, a main group, and a command group. (See map.)


With this basic organisation in mind, Captain Jones began planning future action against such an attack.

First he must instruct his officers and men in the tactics of an ambush. He had to prepare the men both physically and mentally for correct reactions to this type attack. Control of the men and their fires by ensuring chain of command down to the lowest rank was to be assured. The immediate return of fire to destroy a roadside enemy must be stressed in training. Control and communications problems must be discovered and corrected. Convoy discipline must be stressed. Indirect fire weapons support must be planned and the weapons dispersed so not all would be destroyed in one group. The M-79 grenade launcher would be used more, and rifle grenades of HE (high explosive) and WP (white phosphorous) types would be issued to extend the range of fire. The individual tricks of the infantrymen for combat must be reviewed or relearned. He increased bayonet training and surprise target shooting.



① SECURITY PARTY

③ MAIN GROUP

 FRIENDLY FORCES

② BLOCKING GROUP

④ COMMAND GROUP

 GUERRILLA FORCES

Although Captain Jones wasn't a psychologist, he knew that no matter what he did, the initial shock and surprise of an ambush would be hard on his troops. Only by instilling in them a fierce, aggressive attitude and showing them what they were up against, could he overcome this major obstacle.

An order from division gave him one of his finest weapons against the ambush: an aviation element that would be available to him in the event of future movements of this type. He trained with it in every way he and his subordinates could plan and imagine.

Since the division was responsible for so many areas, the number of aircraft available would be small. Not enough to move the entire company, but enough to lift two squads at a time. In addition, the company could expect two helicopters armed either with rockets or machine-guns. The use of these aircraft at night was limited but still effective. In training with the aircraft, a picked platoon worked constantly in an air-transported role and was considered the element to be used in this capacity if the need arose.

In training with march columns, the armed helicopters served as aerial observation posts and vertical attack groups. Extra ammunition and POL for the aircraft were carried with the company, since the aircraft were to remain with the company for the duration of any mission.

The areas of interest to the brigade were studied carefully by Captain Jones. He arranged

flights over all routes to these areas for his officers and senior NCOs to acquaint them with terrain problems and characteristics. The brigade aviation officer assisted Captain Jones in his planning.

Six weeks later the company was committed to the relief of a village. Guerillas had sealed off and were besieging the town of Poksong, and were too strong for any unit of less than company strength to drive off. The local defenders were holding well enough, but they could not contain the guerillas indefinitely.

The only aircraft available to the relief column were the two armed helicopters and three troop-carrying helicopters, each capable of lifting eight men.

Captain Jones organised his men for combat. He realised that after reaching the flat, rice-paddy area three miles from Poksong the sites for ambush by a large group of guerillas would be almost non-existent. Only harassing fire and mines would have to be considered.

The attack area would be near enough to the town to ensure control before the final assault, and objectives around and within the town were assigned. Because of the nature of the attack and the determination of the guerillas to destroy the town, Captain Jones felt that if tanks could be attached, they would not only aid in the movement to the town but once there, would also serve as a good base of fire for his manoeuvring troops.

The organisation for the march column was as follows:

Point — two jeeps with three men each with mounted machine-guns, one tank, one armoured personnel carrier.

Advance Guard — second platoon, one tank, one jeep, three 2½-ton trucks.

Command Group was in an APC between the advance guard and the main group, with an alternate command group in the rear guard.

Main Group — third platoon, weapons platoon, supply and support vehicles, and commo group.

Rear Guard — first platoon, elements of first and second squads, alternate command group, and one armoured personnel carrier.

The armed helicopters would provide flank security and serve as a vertical fire group. The radios with the advance guard and with both command groups netted with the helicopters. Alternate signals were planned for placing fire on desired targets. No target would be taken under fire until approved by the ground control radios, for Captain Jones wanted to control these aerial fires.

The fire teams assigned to the three helicopters were members of the First Platoon who had trained with these carriers.

Number 1 helicopter — eight men: one section leader (a senior NCO), one squad leader, one fire team of five men, one M-79 grenadier.

Number 2 helicopter — eight men: one squad leader, one fire team of five men, and one M-60 machine gun team of two men.

Number 3 helicopter — eight men: one squad leader (alternate section leader), one fire team of five men, and one M-60 machine-gun team of two men.

FM radios to net with the helicopters and relay to the company would be carried by the squad leaders.

This air-transport group would move by bounds from open areas and be airborne during those periods that the march column was passing through close terrain. The section leader would have tactical maps of the area. He was to constantly monitor these areas as he moved in the event he was directed to the area to defend the column. His missions would be by designated area from the company commander.

Captain Jones visualised that the commitment of this unit to the rear or flanks of an attacking guerilla band would worry them enough to make their leader either shift some of his troops or fires. This would allow a faster build-up of fire superiority from the ambushed troops and force the guerillas to evacuate the position for fear of being annihilated. No plan of attack could be concretely formed because only the guerillas knew the intended area of attack. But with maps of the area, this vertical assault group could move across their avenues of escape and trap them as they moved out of the area; take the guerillas under fire from the rear or flank, presenting such a threat to their safety that they would move to escape; or physically reduce the ambush elements by assault.

The column was moving to the relief of Poksong at 1325 hours. On the main road leading to the town, about 10 miles away, a guerilla leader waited and watched. The guerilla had been assigned this avenue of approach to prevent any roadbound reinforcements from reaching Poksong. "Kill all you can and delay as long as possible" was the order.

This band of guerillas, numbering 100 men, was the same group that had so successfully engaged Alpha Company six weeks earlier. The band had moved into this area the previous night, prepared positions and received instructions for the attack. The band was larger now, due to the success of the last ambush, and they were eagerly awaiting the chance to destroy another American group. Perhaps this time an assault could be made. Then their stomachs would be filled with Yankee food and their pockets with all the valuable items the Americans carried.

The guerilla leader smiled and pictured himself riding in an American vehicle up to the town of Poksong, acknowledging congratulations and receiving another promotion for his successful defeat of the Americans.

His thoughts were suddenly interrupted when he observed the overhead flight of two helicopters with strange looking pods or boxes protruding from their sides. The lead helicopter suddenly dived at the bridge. A series of staccato eruptions came from the helicopter, raking the brush on both sides of the bridge.

The rounds plummeting down the sides of the road zinged and sputtered in the foliage. One man, crouched near the bridge, was spun around and lay dying with a .30 calibre round in his chest. A moment of panic overtook another man hidden nearby. He bolted for the main group. The helicopter did not return, but continued its flight. The guerillas spent the remaining few minutes in a state of great anxiety.

The guerilla leader guessed correctly that the helicopter had not discovered his men but had merely used his fire to ensure safety of the bridge. However, this was the first time he had seen an armed helicopter, and he was disturbed by the firepower exhibited.

The helicopter pilot had observed the area and noticed its favourable characteristics for an ambush. He had reported the location and received permission to search by fire for any guerilla element. He had not noticed anything unusual after the firing, but continued circling the area.

The guerillas' demo man caught sight of the lead vehicles and almost lost his morning rice when he realised that not only was there a tank with the point, but also some of the troops were carried in an armoured vehicle. The group, the point, would have to be allowed to pass. He thought of the danger coming back on him after he detonated the bridge. He vividly recalled the counter-attack by the APC in that last ambush.

When the APC within the advance guard reached the bridge,

the demo man pulled the wire. The explosion destroyed the vehicle and signalled the beginning of the attack. The barks and sputters of guerilla weapons began. Raising himself from his spider hole, the demo man looked out at the burning remains of the APC and smiled. At that moment his head was ripped off by the automatic fire of the armed helicopters making another pass at the bridge and raking the brush with their fire.

"This is it," thought a rifleman, as he leaped from the vehicle and began returning the fire. The roar of the weapons from the road and the whine of high velocity rounds into the hillside made it difficult to use the old "crack-thump" method of locating target, but the sector he covered with M-14 rounds gave him the feeling that he was clearing his area of guerillas.

If the rifleman could have penetrated the wall of brush, he would have seen one man slump over with a 7.62 round that went from his shoulder to his stomach, and one of his ricochets surgically remove the elbow from a guerilla AT (anti-tank) man taking aim at the tank in the column. The assistant AT man might have been able to relieve his gunner and destroy that tank, but after seeing his comrade on the ground bleeding with a shattered arm and hearing the whine and singing of thousands of metal hornets, he lost all his love for combat, panicked and ran. He didn't run far. A WP rifle grenade exploded in a small tree above him, and he died, writhing on the ground.

The helicopters, receiving orders from the company, directed rockets into the hill area and then covered the landing of the three carrier helicopters to the rear of the ambush site.

The area was almost as overgrown with brush and small trees as the hill in front, but two of the helicopters were able to hover several feet above the ground and allow their troops to descend by ropes. The third helicopter landed slightly to the right of the other two and quickly discharged its troops. However, just as take-off began it was hit by a number of automatic rounds from a guerilla about 100 metres up the hill. The pilot was wounded, but the co-pilot continued the climb-out and several minutes later landed outside the ambush area near the rear of the company. The pilot was given first-aid and a hurried inspection of the helicopter was made. Little damage was noted except for the left front side next to the pilot; the co-pilot elected to fly the 'copter back to the last outpost 20 kilometres away. The pilot and the crew chief waited for evacuation by the remaining helicopters.

When the guerilla leader saw the helicopters discharging troops he gave the signal to withdraw. His yellow smoke streamers weren't necessary. Most of his men had already begun to move. Many of them would never move again. The overwhelming fires from the troops on the road prevented their immediate evacuation, but the guerillas moved whenever they could.

Small arms fire from the road was sporadic now, but troops were moving up the hill and mortar rounds were tearing into trees above the guerillas. They could feel the closeness of the bayonets and panic was replacing discipline.

The guerilla leader and several others were on the rearward slope of the site, moving down a trail, when they were ambushed and cut down by one of the squads that had debarked from the helicopters. The terrain allowed some of the guerillas to escape and hide from the troops, but the survivors were few and their problems were not over. The wounded had to be hidden and cared for, which would increase their security problems and slow down the return to a safe area, and military patrols would be hunting them soon.

Captain Jones recalled the troops to continue the march, reorganised and moved again toward his objective. Wounded were evacuated swiftly by the two remaining troop-carrying helicopters. Ammunition was redistributed and the march continued. The column had been delayed less than an hour. In comparison to the loss that could have been sustained without his preparation, it was a most successful operation.

The point had lost one APC and two men, but had repelled all other attacks and forced the withdrawal of the guerillas. The loss of vehicles and personnel had been relatively light.

The guerilla leader at Poksong was having difficulty. The defenders had put up too strong a fight, and he was taking more

casualties than he expected. If this fight continued much longer, his unit would begin drifting away; and the failure of the attack would mean his relief, and possibly his execution.

This was a change from guerilla warfare, and was a type of combat he did not appreciate. But the town had to be destroyed to enable supplies for guerilla units to continue in this sector, so an all out attack would have to be made, regardless of the casualties.

Luckily, an ambush element was holding the American relief column from reaching the area. He wasn't worried about them. No one could come through that ambush in less than three or four hours.

The guerilla units for the assault were in position and ready to move out when Captain Jones's unit roared into the area and launched its own attack. The assault by trained troops, supported by fire from tanks, mortars and armed helicopters, caught the guerillas in the most vulnerable position possible. The pursuit was a continuation of the assault. With the return of the helicopters that had transported the wounded from the ambush site, Captain Jones was able to place troops astride escape routes and destroy more of the retreating enemy.

That evening as Captain Jones prepared the company for movement, he paused to reflect on the fine job his men had done. In six short weeks Alpha Company had licked its wounds, put its pride back in its pack, and annihilated a highly skilled enemy.

ROMAN TACTICS

AGAINST

GUERRILLAS

Lieutenant-Colonel A. Treloar, TD,
Sydney University Regiment.

THE PROBLEM posed by revolutionary warfare for armies organised and trained on conventional lines is not a new one.

The experience of the Roman Army is instructive in this as in many other aspects of military history.

The Roman Army can fairly be described as the first great professional army organised and trained on lines that set the pattern for modern Western armies. Like them it developed to meet enemies who fought in close order with a concentration of force in decisive battles. Rome asserted her supremacy in the Mediterranean basin by the middle of the 2nd century B.C. by defeating Carthage and the Hellenistic monarchies in a series of costly¹ battles in which superior discipline, a more flexible tactical organisation and sheer courage and determination on the Roman side proved decisive.

A different problem was faced in Rome's wars to subdue barbarian tribes, especially in Gaul, Germany and Britain. Here the legions drawn up in close order had to face impetuous attack by tribesmen of great personal courage and greater physique

who frequently had numerical superiority over the Romans. If the legionaries' training and discipline withstood this shock there was no doubt about the result.

By these means the Romans "pacified" the Lowland Zone of Britain (that is roughly the area south of a line from Chester to the Wash and East of Wales and Cornwall) in the carefully planned invasion of 43 A.D. which relied to some extent on the lessons learned in Caesar's raids of 55 and 54 B.C.

The Highland Zone presented a different problem and was never pacified in the Roman sense, that is made subject to civil rather than military administration. The Britons realised that they could not face the Roman legions in a pitched battle; any doubt was removed by the decisive defeat of Boudicca (*Boadicea — Ed.*) in 61 by a numerically smaller force, and the collapse of her revolt.

¹The cost of ancient battles is not always realised. At the time of the Second Punic War (218-202 B.C.) Italy is estimated to have had a population of 5,000,000, the same as Australia's in 1914. Yet in the single battle of Cannae fought on one day in 216 the Romans suffered 60,000 casualties, most of whom died: this should be compared with Australia's death roll of 60,000 in the 4½ years of the First World War. And yet Cannae was only one of a series of disastrous Roman defeats at the beginning of that long war.

However, Cornwall was too small an area to maintain its independence in isolation for long. There are no details of operations there, but no doubt the deliberate attrition used to reduce the Jewish revolt in Palestine in 66-70 was applied with the same inevitable result.

Wales presented a more difficult problem: the terrain and area prevented the application of this method with the limited number of troops available. A glance at the map of Roman Britain reveals the method adopted here. The map shows a network of military roads with forts and signal stations at all important centres. It is known that British hill-forts survived on the high ground within the meshes of this net, but they were reduced to impotence by the speed and reliability of Roman communications and the mobility of infantry and cavalry on the strategic road system. So while Wales was not pacified, it was controlled and its resources exploited for the Imperial power, and in those days Welsh gold was of economic importance.

But the Highlands of Scotland retained independence. Agricola, Governor and Commander-in-Chief of Britain from 78-84, apparently penetrated as far north as the Moray Firth and believed he had fought a decisive battle in that area in the last year of his command, but Roman power was never firmly established north of the Tay. They could not bring the natives to battle with the legions and they lacked the manpower to control the Highlands as they did Wales; and yet Agricola in an optimistic

mood is reported to have declared that with one legion he could reduce Ireland also! The most the Romans achieved in Caledonia, that is the area to the north of the Forth-Clyde line was to block off with forts the entrances of valleys leading into the Highlands and even that lasted only for a short time.

However, the Roman experience has lessons for us both in its success and failure. We may expect to operate in territory with a hostile or potentially hostile civil population and to be outnumbered by lightly equipped forces that will avoid any form of positional warfare.

If the hostile area can be isolated as Cornwall was, the slow process of attrition will settle the war. If shortage of manpower and the nature of the terrain prevent this decisive result, as they did in Wales, an isolated area may still be controlled by a small force exploiting the advantages of superior communications and mobility which may have to leave enemy forces in being but impotent. On a much larger scale these tactics were applied in the Pacific War, when our air and sea supremacy were exploited to by-pass large Japanese formations which took no further part in the war.

The same advantages will permit us to contain much larger and more elusive forces, as was done by the Romans in Scotland.

So we should expect active patrolling by infantrymen to destroy the enemy in detail, rapid communications (based on good intelligence) to permit the frustration of enemy moves by

our superior mobility based on air transport, and (I would suggest) hovercraft to use the frequent waterways too obstructed for navigation by normal craft. And in situations in which this is beyond our resources, at least we can block off the area occupied by the enemy by fortified villages.

Eventually, just as the Romans found the Britons developing an interest in the Latin language and the amenities of urban life, we may expect the revolutionaries

to see the futility of struggling against superior military power supported by the advanced state of Western technology, and the attractions of peaceful life with the cultural and economic advantages of civilisation as against splendid isolation in the jungle.

Nor can they hope for support from a civil population securely settled in fortified villages and confident in the courage and skill of the infantry on patrol and the military advantages derived from our technological superiority.

During the North Africa advance after Alamein the 1st Battalion the Black Watch was holding a salient at Medenine that the Germans needed, Rommel having told his troops that if they did not take Medenine the days of the Axis in North Africa were numbered. Before the Germans attacked the CRA told the CO of the Black Watch, Lieutenant Colonel W. N. Roper-Caldbeck, that at Divisional HQ he was regarded as the man about to bicycle off the end of the pier.

The Germans attacked and after bitter fighting the attack was broken up. Two signals arrived at Battalion HQ, one from Sir Oliver Leese saying "Well done — stick it", the other from the CRA — "Splendid — now do it again with your hands off the handle-bars."

"The Black Watch and the King's Enemies"

Bernard Ferguson.

THE VALUE OF MILITARY HISTORY

Brigadier W. G. F. Jackson, OBE, MC,
British Army.

This essay was awarded first place in the Trench Gascoigne Prize Essay Competition 1962, and is reproduced by permission from the Journal of the Royal United Service Institution. The subject of the essay was —

It has been said that the object of studying military history is not to acquire information about the past, but to improve our judgment as to what ought to be done under conditions of actual war.

The introduction of nuclear weapons, both strategic and tactical, would seem to have altered the conditions of any future war completely. Discuss the extent to which the study of past campaigns is still of any value in the training of future commanders of all three Services or could help in the formulation of tactical or strategic concepts for use in such a war.

THE VALUE of studying history, particularly military history, has often been questioned. Even the early Chinese philosophers, Confucius and Laotzu, held opposing views. During one of their brief encounters, Confucius said: "As we use a glass to examine the form of things, so should we study the ancient records in order to judge the present." Laotzu replied: "Their author's bones are rotten now; merely words remain."¹

In any controversial problem it is easy enough to define the

extreme points of view. The difficulty comes in deciding the true balance. Confucius and Laotzu summed up the divergent opinions on political history. The terms of reference of this paper express military history's limits. On the one hand, we know that most great commanders were students of military history; but on the other, we feel now that nuclear weapons may have destroyed whatever value it once possessed. The aim of this paper is to strike a new balance in this age-old controversy.

¹Analects of Confucius.

The Traditional Case

Histories make wise men.

— Bacon.

Although the value of military history has often been challenged, its purpose has rarely been in doubt.

In the earlier military eras, when history and the evolution of war unfolded slowly, it may have been practicable to use past campaigns as the blueprints for the future, but this has long ceased to be possible. History is a record of events, and not a mirror of the future. Events are shaped by the interaction of innumerable forces; some of which are known and understood, others are unknown or barely discernible. In the background hovers the random factor of chance. Military plans have an exact ring about them, whereas history is far from precise. History can tell a commander what has been tried before, by whom, and with what results. It can suggest evolutionary trends, but it cannot say whether events or trends will repeat themselves. History has a discouraging similarity to the Delphic Oracle. A commander will always find the answer he seeks in the pages of history, but the ambiguity of that answer will not be apparent until after the event. And so there has always been general agreement that history cannot provide close precedents for actual strategic and tactical plans. Its main purpose lies in developing sound military judgment. This view is summed up in the ancient Greek saying: "History is philosophy derived from examples."²

The Case For

What is all knowledge too but recorded experience, and a product of history; of which, therefore, reasoning and belief, no less than action and passion, are essential materials.

— Carlyle.

The case for the study of military history rests essentially on its value in improving the military judgment of future commanders. The best school for commanders is war itself, but our span of life is short and the number of campaigns we can fight is small. The spectrum of war is so wide and varied that even the most experienced officers see only a small segment of the whole. The study of past campaigns is one of the ways of filling the gap between personal experience and the breadth of knowledge needed by successful commanders.

Sound military judgment depends on a commander possessing a mind which is well stocked, practical, practised and inspired. A study of military history helps to develop the mind in all these respects. The store of military knowledge which a commander must accumulate throughout his service is largely subconscious. It is built up from his own limited experience, supplemented by reading accounts of past campaigns, biographies of great commanders, and historical novels which lend colour to the dryness of history. In his reading he becomes familiar with the general trends of war. He begins to appreciate the constancy of

²Probably originated with Thucydides; and often quoted by Carlyle.

the principles of war, and the vagaries of human nature. War is full of imponderables. By gaining a sub-conscious knowledge of the constants, he can concentrate on unravelling the variables. For instance, one of the most intangible factors in war is enemy reaction, but this can be reduced to manageable proportions by a knowledge of enemy history. Every nation is a slave to its past. Its reactions are moulded by the accidents of time and geography. The methods used by the Kremlin to expand Russia's frontiers today bear a striking resemblance to the policies of the Grand Dukes of Muscovy. The present Russian drive to overtake the West reflects a similar surge in the days of Peter the Great. Moreover, the Soviet Army still draws its inspiration from such Tzarist commanders as Menshikov, Suvorov and Kutuzov. If we are to understand Russian reaction, we must be familiar with their history.

A sense of what is practicable in war is difficult to acquire in peace. Exercises with and without troops help, but they lack the reality of war. Fear, confusion, and uncertainty are absent. The unpredictable hazards of active operations cannot be simulated, but it is possible to imbibe some of the atmosphere from the stories of past campaigns and to assess the scale of achievement of our forbears under the conditions prevailing on the battlefields of their day. Unless a commander knows what has been accomplished in the past, he has no basis on which to judge the future. For example, it is tempt-

ing to assume today that we can defend far wider frontages than was possible in 1945. Pressure of events rather than sound military reasoning is forcing these frontages upon us. Shortage of manpower for units, shortage of money for equipment, the need to avoid presenting nuclear targets, and political pressure to defend greater areas, all are conspiring to lead us into impractical thinking. The increase in frontage must be related to improvements in weapons and equipment. Before we give divisional tasks to brigades, we should look carefully at our past achievements to make sure that the wish has not become the father to the thought.

Few commanders are born with a natural ability for cold logical military calculation. Even those fortunate enough to possess this gift need to train and develop their talents. Critical reading of military history, made up as it is of analysing the true reasons for victory and defeat, of tracing evolutionary trends, and of endeavouring to look through the eyes of the men in command at the time, is excellent mental training. Such studies as the application of the principles of war, the development of the machinery of command, the evolution of weapons and tactics, or human reaction under the stress of war, sharpen and broaden military intelligence.

But a sharp, critical, and well stocked military mind is not complete without inspiration. Commanders need inspiration to conceive original plans, and to provide the spiritual surge so

essential to great achievement. Without inspiration, plans become unimaginative and lack the fire of success. In the pages of military history a commander can find abundant inspiration of every kind.

And so, in brief, the traditional case for military history rests on its value in developing the military judgment of future commanders by stocking, sharpening, and inspiring their minds while at the same time giving them a sense of what is practicable in war.

The Case Against

Anything but history, for history must be false.

— Robert Walpole.

The case against the study of military history is not so tangible. It is more emotional, and is based on two generalisations. Firstly, the study of the past leads to a dangerous degree of military conservatism; and secondly, history can prove a warped and unreliable guide.

The first argument centres round the familiar accusation that the Services always prepare for the last war, if not the last but one. History read by meagre military intellects leads to military pedantry. The slavish adherence to outworn traditions stultifies reform and breeds resistance to new ideas. Forward thinking is petrified, and form becomes more important than substance. History itself lends considerable force to these contentions. After a great commander has regenerated the military art, it decays once more as the observance of rules and regulations replaces military reason.

The generals who tried to oppose Napoleon's early Revolutionary armies aped Frederick the Great's drill book without understanding his methods, and paid the price. The French armies in their turn fell before Von Moltke's Prussians in 1870 for similar reasons. Resistance to new ideas is typified by our own actions in the early days of the Boer War, and more tragically in the mud of Flanders a few years later. Even the Royal Navy can be accused of living on Nelson's credit during the First World War. In 1939 the British Army went to France expecting a repetition of trench warfare, only to be met by the German "blitzkrieg" in 1940.

The second argument, that history is an unreliable guide, has three facets. Carlyle summed up the first when he said: "History is a distillation of rumour." Tolstoy also had a few illusions on the subject. His descriptions in *War and Peace* of the Austerlitz and 1812 campaigns show his insight into the weaknesses of the military mind. Soldiers are prone to exaggeration. Few genuine accounts reach the history books, and those which do are all too often unintentional fabrications written long after the event. Myth piles upon myth, and fables become history. Disasters fade, leaving only epics behind. This picture is probably overdrawn, but contains a thread of truth. Only undisputed or well corroborated events, genuine contemporary documents, and the facts of geography provide reliable historical evidence in military affairs.

The second facet is the oversimplification of events. Historians complain that they cannot write history too close to the event. The military cynic would say that history cannot be written until all the witnesses are dead and so can no longer refute the plausible theories of historians. No historian can live unless his works sell. Histories must be readable and reasonably enjoyable; and regrettably, in our modern society, there is the temptation to make them cheaply controversial to attract a profitable market. The historical writer must crystallise the most complicated problems into a digestible form. Unfortunately, he is rarely qualified to do this accurately in the military field.

The third facet has more substance. Critics of history maintain that events do not repeat themselves closely enough for practical purposes. There may be evolutionary processes, but these are never obvious at the time, and are too uncertain for estimating future trends. It is now possible to look back at the German invasion of Russia to point out the great similarities between the campaigns of Charles XII of Sweden, Napoleon and Hitler; but who in 1941 could have estimated the course of events? And who in 1961 would be prepared to guess the outcome of the present clash with Russia? Moreover, history is so replete with examples of every type of action that it is always possible to find an appropriate incident to support a particular theory. It can be shown that Russia has never embarked on an aggressive war. She has made her territorial

gains by her ripostes to attacks by others. Conversely, historians can point to the aggressive policies which normally flow from successful revolutions. The Napoleonic wars stemmed from the French Revolution, and the Franco-Prussian and the two World Wars had their origins in the German revolutions of Bismarck and Hitler. Who can say whether Russia will remain true to Muscovite tradition or follow the pattern of other revolutionary Powers?

To sum up, the case against military history rests on its dangers rather than concrete disadvantages. The principal danger is the military orthodoxy which it tends to breed. This is magnified by the secondary danger, which might be called the malleability of history. The two together can be held responsible for many of the peacetime misappreciations of future war.

The Balance

The traditional case for military history rests on its positive uses, while the case against stresses its dangers. The balance depends on the extent to which the dangers can be overcome, and has varied from epoch to epoch. In periods of military resurgence, commanders have avoided the pitfalls of military history, and have evolved novel and successful policies. In times of military decadence, the opposite has happened. Men of weaker military intellect have tried to copy slavishly the precepts of great commanders with disastrous results.

The element of unreliability in history can be overcome by acknowledging the existence of historical mirage. Myth, oversimplification, and the discontinuity of evolution can all be placed in their right perspective by critical reading. No historical theory should be accepted at its face value without careful study, working from first principles; and no plan should be evolved from anything but proven fact. History can suggest, but cannot decide policy.

The tendency to breed over-conservatism is harder to counter, and is the strongest argument against military history. The weakness stems from our inability to appreciate the true significance of events unfolding around us every day. The gradual shift of political power is often imperceptible until the stark realities of war reveal the feet of clay of some great Power. Few people would have prophesied the humiliation of France in 1870 and 1940. Fewer would have forecast the resurgence of Germany after the Armistice of 1918 or the unconditional surrender of 1945. Economic trends are equally obscure; while the extent and possibilities of scientific and technological advance are the most difficult of all to assess. Unless a commander can frame a true mental picture of the realities of his own era, he cannot interpret the lessons of history correctly. The victories of the German Wehrmacht between 1939 and 1942 are an excellent example of the successful appreciation of the realities of the 1930s. The German General Staff under Von Seeckt³ methodically

studied the causes of Germany's collapse in 1918. At the same time men like Guderian, Kesselring and Raeder assessed and evaluated every scientific advance which might be applied to war. Hitler, for his part, studied intuitively the political and economic realities of Versailles Europe. The General Staff's "blitzkrieg" and Hitler's political intuition brought Germany within measurable distance of world conquest.

The traditional balance can be summed up by saying that military history has positive uses in developing military judgment provided its dangers are understood. These can be overcome by critical reading and by a thorough knowledge of the political, economic, and scientific realities of the day. There is little wrong with unembroidered history. The danger lies in the ease with which it can be misinterpreted.

The Impact of Nuclear Weapons

The destructive power of nuclear weapons, together with their long term genetic effects, are too well known to need elaboration in this paper. The sea, land, and air battles, as we know them, may become unmanageable in the conventional sense; and nuclear escalation may lead us back to the stone age with such mutations that the human race will be unrecognisable. Under these conditions the lessons culled from military history may well be meaningless. The development of nuclear weapons, however, is only one

³See Gorlitz, *The German General Staff*.

aspect of the far reaching scientific and technological revolution which is taking place in the world today. It is this revolution rather than nuclear weapons themselves which is bringing conventional history into disrepute, adding force to Henry Ford's well-known quip, "History is bunk". The new balance in the military history controversy depends firstly on the likelihood of nuclear weapons being used, and secondly on the degree to which advances in science and technology will inundate conventional thinking.

The Use of Nuclear Weapons

Views on the likelihood of nuclear weapons being used range from "It can never happen" to "Nuclear weapons are just another step in the evolution of weapons and tactics". It is impossible to say which view will prove nearest to the truth. Indeed, the outlook is always changing as new scientific advances are made and as defence policies are reassessed. All that can be said with any certainty is that the deterrent policies of the nuclear Powers have made the use of strategic nuclear weapons unlikely. Furthermore, the fear of escalation had reduced the chances of tactical nuclear weapons being used even in limited conflicts. Unless the vital interests of a major Power are placed in jeopardy and mutual suicide appears preferable to submission, nuclear weapons will stay in deterrent reserve. Lesser international conflicts will probably be settled by negotiation, nuclear blackmail, or conven-

tional weapons, but not by nuclear weapons. Thus, for the present at least, nuclear weapons only affect a small and unlikely segment of the spectrum of war.

There is one important by-product of the nuclear deterrent. The risks of political and military miscalculation have risen sharply. One false step during a period of international tension could prove fatal. Clausewitz's dictum that war is a continuation of politics by other means is no longer true. War is now part of international politics. There can be no such thing as a purely military decision. The solution to any international conflict must be political, but the scene may have to be set by military action. Even if the Suez operations had been carried through to the annihilation of the Egyptian Army, the re-occupation of the Canal Zone, and the capitulation of Cairo, a political solution would still have been needed, and might have proved more elusive than ever. In this vast game of poker in which the stakes are national survival, the responsibilities resting upon a government's military advisers and upon its commanders in the field are greater than at any other period. In addition to balanced military judgment of the highest order, future commanders need a thorough grounding in political as well as military history. The "simple soldier" is out of date. The study of politico-military strategy and the application of power in its widest sense is a military necessity in the nuclear era.

Scientific and Technological Progress

The nuclear weapon is only a symbol of the scientific and technological progress of the last 30 years. Its destructive power is in sympathy with the increases in speed and range of modern transport and communications. But it is the rapid scientific progress over a wide field of development rather than the nuclear weapon itself that is threatening the validity of history.

The essential differences between military eras lie in the weapons and equipment in use at the time. Most failures to anticipate the need to change strategy and tactics have arisen from a misappreciation of the potential of new weapons. Our tardiness to change tactics in the face of Boer sharpshooting, the slaughter on the Western Front, our failure to develop the tank between the two World Wars, and our naive ideas on air warfare in 1939, are examples of misappreciations of scientific advance. The military profession has always been weak in this respect, but today this blind spot could be fatal. Scientific progress is so rapid, the cost of equipment so great, and the time needed to develop new devices so long, that an error of judgment in estimating military requirements today could lead to national disaster in ten years' time.

The danger of military conservatism, which is the main plank in the argument against military history, is multiplied in the nuclear era by some large but

unknown factor. The lessons of history will certainly become useless unless commanders and military policy makers thoroughly understand the scientific and technological possibilities and limitations of their day. They cannot hope to interpret the past unless they have a thorough grounding in basic science and technology, and can keep abreast of developments affecting the military field.

The New Balance

The direct impact of nuclear weapons on the value of military history is, at present, only slight because their use is so circumscribed. The indirect effect of nuclear deterrent policies is to increase the need for balanced military judgment based on a wider knowledge of political and economic as well as military history. But the principal change faced by future military commanders, studying their profession in the nuclear era, is the need to supplement their reading with a sound education in the principles of science and technology.

The Study of Military History in the Nuclear Era

The purpose, advantages and disadvantages of studying military history remain unaltered in the nuclear era, but emphasis must change in a number of significant ways. Let us examine briefly how future commanders should modify their reading.

In the nuclear era there is even less doubt that the purpose of studying military history is to improve military judgment. The constancy and rapidity of change

makes seeking close precedents upon which to base future plans both profitless and dangerous. Military history's value still lies in stocking, practising, and inspiring a commander's mind.

Future commanders should plan their reading to acquire a wider and more varied store of knowledge than previous generations. Knowledge of the constants of war, of the evolution of weapons, tactics, and strategy, and of the vagaries of human nature are still important, but greater emphasis must be placed on the inter-relationship between politics, diplomacy, economics, and military power. The study of the use of force in all its aspects should be linked with reading the general and military histories of our potential enemies. Ministers and their Service advisers must work as one team. If the risks of miscalculation are to be reduced, and if force is to be applied without disastrous results, our future commanders must study political stage-management, handling world opinion, use of political and economic pressure, and the ways of modern diplomacy and foreign policy. Unless they understand these problems they cannot advise ministers on the true implications of military measures; nor can they state with assurance the political requirements for successful military action.

But in these days of haste and hustle, few officers have the time to extend their reading. If scope is to be widened, depth must be reduced. Detailed study should not start before the

middle of the 19th century. The American Civil War and the Austro- and Franco-Prussian Wars of 1866 and 1870 are important starting points because precision weapons and national mobilisation made their first impact upon war during this period. The study of earlier campaigns should be restricted to background reading to gain an insight into the part they played in the evolution of war and in the formation of the national characteristics. We should resist the temptation of over-studying the feats of our national heroes such as Marlborough, Nelson and Wellington, and turn our attention instead to more recent Central European, Russian and Chinese campaigns.

A study of the Second World War and of the Korean campaign probably provides future commanders with the soundest basis for developing their sense of what is practicable, because improvements in conventional weapons have only been marginal since 1945. In one respect the First World War can also help. The endurance of disaster, of unprecedented casualties, and of the troglodyte existence of trench warfare on the Western Front have few parallels in history, but may well have lessons for us in nuclear war. Both world wars, however, were fought on scales which are unlikely to be repeated, because escalation would inevitably result. Their lessons must be adapted to the application of force with limited resources beneath the deterrent umbrella.

The greatest change of emphasis comes in using the

study of history for mental training. It is here that the future commander is faced with the greatest challenge. He must apply his knowledge of future scientific and technological trends to his assessment of the lessons of the past. The scale of the battlefield, the relative importance of the various principles of war and mechanics of waging war, must all be revalued. He must sort reality from science-fiction, and the practicable from theoretical possibilities. In this he cannot confine his attention to the problems of his own Service. If he is a soldier, he must study sea and air warfare. If he is a sailor or an airman, he must include the land battle in his reading. And all three must bear in mind that they now form part of the national political machine, and no longer belong to separate organisations which take over when the politicians have failed.

The need for inspiration has not changed, but again emphasis has altered. We should look back to the days before we became an imperial Power to analyse our impulses when we were unfettered by great responsibility. Our pride lay in our freedom as Englishmen, and our purpose lay in trade. These leading marks are becoming once again keystones of our national policy.

The dangers inherent in the study of military history are not reduced but are magnified in the nuclear era. The element of myth is increased by modern journalism and the ready market

for sensationalism. Critical reading is the only counter to this disease. The tendency towards military conservatism is accelerated by most commanders' natural abhorrence of scientific and technological study, but such conservatism could prove fatal in the nuclear era. Classical subjects such as Latin and Greek are giving way to science and technology in our universities. The same must happen in the Services. Without this training we will once again misinterpret the lessons of history.

Conclusion

The new balance in this old controversy can be summed up briefly. Nuclear weapons have not destroyed the positive uses of military history because these weapons are restricted to a small and, we hope, unlikely segment of the spectrum of war. On the contrary, the risks inherent in the nuclear era demand from future commanders a higher standard of military judgment. History can play its full part in developing, widening and sharpening military intellect; but its dangers remain and are magnified by the far reaching scientific and technological revolution which is taking place in the world today. Unless future commanders can come to terms with this revolution and understand its implications, they will misinterpret the lessons of history. If they fail, Birrell's description, "that great dust heap called 'history'," will prove apt in the nuclear era.

ON ARMOUR

AND

SELF SUFFICIENCY

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ON EXAMINING the well known characteristics of Armour I found myself asking a few questions, and in taking those characteristics in their well known sequence, a few points arose.

Fire Power

The tank must have fire power in its fighting role otherwise it is not a tank any more.

The fire power, produced by a gun, must have a knock-out punch and a rate of applying that punch at ranges exceeding anything the enemy is capable of producing. This is good insurance.

It calls up visions of a very powerful gun, capable of rapid and accurate fire at long range, and by preference that fire should be automatic or semi-automatic in bursts of two or three rounds.

A powerful gun needs powerful and therefore heavy and cumbersome ammunition. Automatic loading is required.

While the gun is being loaded or waiting to be loaded, the fire power of the gun is zero. This is of little comfort to a tank crew, who have just fired a few rounds and are caught in the open, to

know that they have 64 rounds on board, but can only get them after digging them out of the entrails of the tank after dismantling part of its insides. Some motorised means of making the ammunition available at the breech end at all times should be incorporated, perhaps a conveyor belt of some sort.

Mobility

The Pentropic Division in Battle, Part 4, states:

"Tanks can move at speed across reasonably open country. In the hands of well trained crews they can move through many apparently impassable areas of rain forest and secondary growth. The tracked load carrying vehicles in the echelon maintain the Armoured Regiment's mobility in difficult country."

The mobility so envisaged restricts itself to battlefield mobility and in an overall picture it must be considered on a wider basis.

Mobility in a wider sense must take into account the necessity of moving tanks over long distances in as short a space of time as possible. With the restrictions imposed on tanks due to range,

fuel supply, and their tracked nature, tanks must rely on other means to cover the longer distances.

Conveyance over long distances could take place by:

- (a) Tank transporters.
- (b) Railroad.
- (c) Sea transport.
- (d) Air transport.

Disregarding air transport, which would be exceptional, and concentrating on the more conventional means of present day tank transportation, here also some severe restrictions are imposed. The sheer bulk of the present day Medium Tank on its transporter cannot be handled adequately by the inadequate carrying capacity of Australian arterial roads and bridges. Any appreciable improvement in this situation for the sake of providing the armed forces with the required mobility of its bulky equipment cannot be considered seriously in terms of time available, manpower and capital outlay that such an enterprise would command.

The railways, too, have problems in terms of suitable flat tops, rail and tunnel clearances, and rail track curvatures.

Sea transport is possible only where ships are constructed with sufficient deck strength to take such loads as are imposed by a Centurion, especially under heavy weather conditions. Sea transport is slow in handling and in terms of time taken to travel from A to B.

Armour Protection

Any known armour protection on any tank can at present by

penetrated by infantry anti-tank weapons and it is true to say that not matter how much armour thickness is increased, the anti-tank weapon exists or will be produced in a very short space of time, which will penetrate such armour. It is therefore problematic whether continued increase of armour thickness, and therefore in weight with its inherent problems restricting mobility, is tactically warranted or acceptable at all.

Since most infantry anti-tank weapons are short range squash-head type of projectiles, consideration should be given to spaced armour of lighter gauge and increased sloping. The added advantage of spaced armour is that it is possible to fill up the space with radiation arresting or retarding mixtures (borax, etc.).

Flexibility

Flexibility, due to wireless communications, seems adequately provided for at present.

Having looked into the characteristics one may well ask: "Is it absolutely necessary to tote a powerful gun on a 50 ton frame without affecting adversely the other characteristics to any great extent?" In the light of the foregoing considerations the answer must be "No". The gun must be powerful, but the frame on which it is carried could be a lot lighter. There are a lot of advantages in doing this:

- (a) Increase in range is possible for the same amount of fuel as carried now.
- (b) Proportionate reduction in required engine horsepower.

- (c) Higher speed, more manoeuvrability.
- (d) Greater mobility due to light weight.
- (e) Easier transportation and recovery.
- (f) With same width of track lowered ground pressure and therefore better cross country performance.
- (g) Decrease in costs, fuel commitments, logistic problems.
- (h) Smaller tank transporters required, with greater mobility, less operating costs (fuel).
- (j) Smaller and more mobile target presentation possible, offsetting the protection (?) offered by heavier armour.
- (k) Air transportability coming closer to being realised. One may envisage in this concept a tank with the equivalent or better than the present 20 pounder gun but with an overall weight of some 25 to 30 tons.

Design Features

The present medium tank has a number of undesirable features. Restrictions are imposed on mobility by its design (size) and weight. The high rate of replacement of some components or assemblies due to high rate of wear, and the extensive man hours required for such simple tasks as renewal of spark plugs, and engine or transmission changes, must be quite unacceptable in a forward operational area.

Other unsatisfactory design features incorporated provide for the maximum crew fatigue in the minimum time, especially on the driver. His task surely is

to drive the vehicle where the tank commander wants it and he should be able to do that for long periods without strain. Added distractions of worrying about gears and hordes of instruments should not add to his task of driving.

The slow rate of refuelling and stowing of ammunition at present must be unacceptable under operational conditions.

These features, with a bit of thought during design, can be improved out of sight.

Engine changes should be possible in the field in a matter of two hours or less, while spark plug changes should be performed in a matter of minutes.

Crew (driver) fatigue can be reduced by the incorporation of automatic, torque converter gear changing and power assisted steering. Automatic, or semi-automatic gun loading would make the loader's task a lot easier or make him redundant altogether and available for other duties.

Manufacture and Supply

So far Australia has been content to rely on overseas designs and on the availability of equipments from beyond its own shores. Arguments in favour of such a set-up have been heard because of the alleged high costs involved in designing and producing tanks and for that matter, other armoured vehicles. Whether the basis of such arguments stems from some sentimental "mother country" concept favouring the buying of our requirements over there, I could not say, but in the event

of a conflagration starting up, it is very doubtful that the "mother country", or even our friends in the US, would be in the position to let us have what we need or want, when we want it, in a hurry.

Well meant words of commiseration with our lot and words of praise and encouragement urging us to hang on until rescued will be of little comfort to the Diggers having to make do without tanks or without adequate replacements.

It seems strange that a country like Australia, mostly ideally suited for tank warfare and, because of size versus population, requiring a high degree of mobility for its forces, would not be capable of producing a very good fighting tank and other armoured vehicles in (large, please) numbers. Yet it can build ships and produce highly sophisticated fighter aircraft! The heavy industry potential is here and with the know-how on engineering, gunnery and electronics available it must be possible to produce such a war machine locally, and with the minimum of overseas component content.

Having our own manufacture, procurement and availability of parts would be ensured without having to cope with all the delays involved with overseas procurement problems in terms of availability of parts, or having to wait for a production run on certain items, shipping times, etc.

Making our own fighting vehicles would also create a number of jobs and be an interesting challenge to designers and manufacturers alike.

No doubt it will cost money, but overseas equipments cost money too, lots of money, which is not spent partially to aid the country's own economy by creating jobs and manufacturing of items right here.

So it will cost money either way, but if the money is spent locally to ensure adequate supply and independence from overseas sources (which could dry up at a moment's notice) and ultimately contributes to the saving of the life of one irreplaceable Digger in battle, or helps to keep Australia's freedom, then in my book, it is money well spent indeed.

We may yet make it if we start soon.

TRAINING ARMY DIVERS

Captain L. G. Halls,
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WITHIN the past few years it has become apparent that diving is becoming accepted as an army requirement. So far we have had a new trade test for divers (ECN 288), a set of safety precautions, and the granting of a diving allowance. Actual diving, however, has been confined to a few units who run their own training programmes, and the number of postings available for divers are few. The implications of the recruiting advertisements therefore, are not strictly correct and army divers are very rare fish indeed.

There is still a general lack of understanding in the army as to how divers may be employed and what they are capable of doing. Therefore, it would seem that this lack of understanding, and thus interest, has stultified the growth of diving as a function of the army.

The fact that diving has such a diversity of uses and finds application in a number of different units has possibly prevented it from being "spot-lighted" the way other specialised tasks such as parachuting and army aviation have been. This is no reason why the army should not accept diving with the same vigour as it has these other

activities, studying the applications of it in the same way. Furthermore, on the basis of cost, effort, and results, even in peacetime diving is more than deserving of an equal standing to these other activities.

The Requirement

The first requirement for ensuring that diving becomes an accepted army trade is the adoption of a fully co-ordinated system of training. This involves both basic training and the advanced training of diving supervising officers and NCOs. At the basic level the duplication of effort by different arms can be eliminated, and also the system where the occasional soldier is sent to a Navy school to learn subjects of little application to the army's role.

Secondly, much work has to be done to formulate a doctrine for the employment of divers. No matter how well trained individual divers may be, they are of little use unless there is a general appreciation of how they may be used to achieve large savings in time, effort, and expense in comparison to other methods.

The study of the employment of divers, designed particularly as a guide to unit and formation

commanders, is most necessary to ensure maximum effective use of trained specialists. It should be realised that divers are not a cure-all for any task involving water. In some cases the use of divers may be the least efficient way of approaching a task. However, when the capabilities of trained divers are fully understood many opportunities will be found for their employment, and in many other cases the use of divers may mean the difference between an operation being feasible or not. Therefore, if an army diving centre were formed it would naturally follow that this school would have as its responsibility the dissemination of such information.

It is not proposed that a major effort be devoted to creating a diving school, nor that large numbers of divers be trained in excess of the practical requirement for divers in the AMF. It is, however, maintained that at this time no effective system of ensuring that we do have enough divers exists, and it will be shown that there is a simple, economical way in which the problem can be solved.

The Potential

To better understand the potential of diving in the army one must have an idea of the many ways in which divers may be employed. Firstly there are the arms and services that have limited uses for their own underwater specialists. Commando units and SAS have swimmer canoeists used for reconnaissance and raiding. RAEME units require their recovery mechanics to have a knowledge of diving

techniques, and it may be expected that with the increased use of amphibious vehicles this requirement will assume greater importance. In both cases a fundamental knowledge of diving techniques is required before becoming proficient in their own roles.

Engineer units, on the other hand, have a requirement for men not only trained in the use of underwater breathing apparatus, but also in the various skills associated with underwater work, such as salvage, inspection and reconnaissance, underwater demolitions, construction, cutting and welding, small ship repair, and the specialist task of bomb disposal. It takes little imagination to foresee the many uses divers would have were they trained in these functions.

Obviously then, to fulfil the need for divers in the army, all training must be specifically designed to ensure that our divers are trained to carry out army tasks using methods designed to tie in with established practices whenever necessary. The next thing to consider then is how this training may be accomplished with regard to existing facilities, manpower limitations, and the cost of equipment and training.

An Army School

The solution to this training problem that most readily springs to mind is of course an army diving school, or at least a new training wing of an existing school. Since Engineers have by far the greatest requirement for divers in their

various units, it should therefore be a sapper responsibility to foster this training. At the present time the logical place for a new wing to be formed would be the Transportation Training Centre at Chowder Bay, N.S.W. Here most of the facilities that are required already exist and the location on Sydney Harbour is ideally suitable.

Presuming the ability of Transportation Centre to overcome the administrative problems of student accommodation, instructional space, etc., the formation of an underwater wing there is in most ways attractive. The entire training programme would be under army control, could work with standard army equipment, and the classes would be "on site" for any instruction in relation to small ships, harbour installations, and port operating.

In effect then all that would be required to make the underwater training wing a going concern would be to make the location available, provide enough diving equipment and training stores (and this would cost no more than one three ton truck), and the posting of a couple of instructors.

A Navy School

As an extension of the present system, arrangements could be made for the Naval Diving School at HMAS *Rushcutter* to run courses specifically for the army. It is already appreciated by many navy diving instructors that this overcomes the chief handicap to the present system, as much that they teach on present courses

either differs from army practice or is not applicable at all. If, however, it was possible to run special courses for the army, then all necessary facilities exist. The only additional needs would be some equipment provided by the army, and the attachment of a couple of army instructors to the school.

It is suggested that this army cadre consists of an officer of the rank of captain as an LO/instr and an assistant instructor (WO or Sgt.). These two are required to cover the purely army subjects, provide liaison between the army and navy for administration and offer assistance to the navy instructors on matters affecting changes in instruction, where differing from standard navy practice. In addition by closely co-operating with the navy, these two members would be able to carry out further work on training policy for the army and keep abreast of current developments in equipment and techniques.

The Result

With either of the two solutions presented it would be possible to co-ordinate all underwater training in the army. This would mean that user units would be able to maintain an effective diving team from members already posted to the units, thus eliminating what now occurs when a member is trained, returns to his unit, and because of lack of opportunity, gets out of touch with his trade. When he is reposted that member usually is of no further use as a diver and his training has been wasted.

It is far better for each unit to be able to maintain a team of divers by means of regularly scheduled courses ready for use when required. The fact that divers are available at all time increases the flexibility of the unit in the method of approaching some of its tasks.

It must be remembered that with diving it is not merely

a case of keeping alive techniques in the army, but rather filling a need that exists for trained specialists both in peace and war. A co-ordinated system of training divers will enable the army to function with greater flexibility, greater economy, and with more speed. There is no reason why the army should not, right now, take full advantage of the potential of underwater operations.

A reader who wants to remain anonymous submits the following story:

It was St. Patrick's night in the Congo and a certain group of Irish soldiers, having exhausted all speculation on the sports results in Ireland, fell to recounting feats of days gone by.

"The soldiers nowadays are soft," said the Sergeant. "In my time . . ."

"Hold on, Sergeant," interrupted a stocky, tough-looking soldier. "What exactly has a fellow to do to prove he's as good a man as any of you fellows?"

The Sergeant paused for a moment, then looked squarely at the soldier and said:

"A real soldier should be able to chew glass, wrestle a Kerry footballer, and shoot a leopard."

The soldier promptly seized a tumbler, chewed it and disappeared into the jungle. Three days later he reappeared with a broken nose, little hair, torn clothes and deep scratches from head to toe.

"Now, where's that Kerry footballer I have to shoot?" he demanded.

— *An Cosantoir, Eire.*



COUNTER GUERILLA OPERATIONS — THE PHILIPPINE EXPERIENCE, by Colonel D. Valeriano and Lieutenant Colonel Charles T. R. Bohannan. (Frederick A. Praeger, Inc., New York.)

The authors have made a great success of describing the counter-insurgency operations against the Hukbalahap in the Philippines after World War II. The book is obviously written from first hand experience and is rich in incidents which vividly portray the nature of this Communist guerilla conflict.

The book explains the origins of the guerilla movement and the reasons why it had initial success. The authors traced the guerilla decline from the time Ramon Magsaysay became Secretary of National Defence and attribute the achievements of the counter-guerilla forces to the national policies which Magsaysay improvised.

Soldiers who find difficulty in understanding the relationship of the military problems to national policies, political considerations, psychological operations and civic action in counter-insurgency, should read this book. Although Australian forces involved in such a situation in a SE Asian country will probably

be less concerned with local political considerations than the indigenous forces, it will be as well to understand the nature of the difficulties that will beset our Allies. Even if not intimately involved at the political level ourselves, it will always be necessary for our forces, from the individual to the level of the Force Commander, to bear in the mind the direct or indirect political consequences of any action.

The authors particularly emphasise the vital need for effective military intelligence and a counter-intelligence organisation together with a close understanding of the country and the people. Based on such an understanding, Colonels Valeriano and Bohannan have clearly and successfully portrayed the role of psychological operations in counter-insurgency. This is best summed up in the authors' own words extracted from the final chapter — "The essential requirement for the existence of a guerilla movement, however, is psychological . . . The successful counter-guerilla is the one who can recognise this psychological condition and the physical factors that predispose to it and can effectively allay the fears and encourage the aspirations of the body politic. Physical conditions

are important, but the attitudes of the people are the key to the elimination of the guerilla movement."

What results from the book is a basis from which students of counter-insurgency can "flesh-out" the AMF doctrine for operations of this nature. However, care is necessary in applying the lessons of one campaign to another. As the authors themselves point out, the similarities among guerilla movements may often be as deceiving as illuminating. Those familiar with operations in South Vietnam and Malaya will therefore have a fascinating time in measuring the lessons that they have absorbed against those of the Huk struggle and then applying them to other situations which could eventuate in SE Asia or nearer home.

This book is absorbing, practical and deserves to be widely read.

— J.R.S.

THE HISTORY OF THE CORPS OF ROYAL CANADIAN ENGINEERS, VOL. I. (Published by the Military Engineers' Association of Canada, and may be purchased through the Office of the Chief Engineer, Army Headquarters, Ottawa, Canada.)

The authors of this volume have done more than present the reader with a narrowly-based history of a military corps; they have given him much information about the early days of European settlement in Canada. That period bred a hardy settler-militiaman who could turn his hand to anything from propelling a bateau to cutting his way

through virgin forest. In the original colony of Canada engineer works were forwarded by calling out the militia, and it is in this circumstance that the origins of the Canadian engineer-soldier are to be found. At the same time the engineers of the armies of Britain and France contributed much to the national heritage and the development of the country. While these men were chiefly concerned with the development of more permanent works, the militia engineers were blazing the trail along the expanding frontiers. From these two related activities the Corps of Royal Canadian Engineers eventually developed. From the very beginning the Corps has grown up with the regular/militia concept. This volume provides us with a fine example of the concept in action, and at the same time gives a fascinating account of the early Canadians and how they faced and solved their problems.

The first two chapters deal with the early pre-federation days when Canada, like Australia, consisted of a number of separate colonies. In this period there occurred the Seven Years' War between Britain and France in which the Canadian colonies were directly involved. The next two chapters trace the development of the Canadian Army in general and the Canadian Engineers in particular from the immediate post-federation era to the outbreak of World War I in 1914.

The next ten chapters deal with the participation of the

Corps in World War I. This period, of course, saw a rapid expansion of the Canadian Army as a whole, with a corresponding expansion of the Corps' responsibilities. These chapters give a first-class account of many of the great battles of the Western Front from the Engineers' point of view. From them the military engineer will learn much about the problems he is likely to be faced with in war.

The final chapter covers the years between World Wars I and II.

This book is splendidly produced. The arrangement of the material, the style, the maps and the illustrations all combine to constitute a model for a work of this nature. The Corps of Royal Canadian Engineers is to be congratulated on having added another enduring monument to their illustrious record.

— E.G.K.

HARM'S WAY, by James Bassett.
(William Heinemann Ltd., London, and 317 Collins Street, Melbourne.)

This could have been a good book if the author had made up his mind whether the sex was to be incidental to the story or the story incidental to the sex. As it is, he falls between two stools. There is not enough sex to satisfy the lecherous and too much of it for people of good taste. And it gets in the way of the story; the reader has to bulldoze his way through it several times in every chapter.

Basically the theme of the book is the situation that existed in the Pacific in the lean months

after Pearl Harbour. Mr. Bassett presents this theme in the form of the story of an American admiral who, like so many other Allied commanders in that grim period, had to accomplish much with very little. Stripped of its unnecessary distractions, it is a very good story indeed. It brings home to us the realities of the problem, the immense responsibilities carried by senior officers, and the loneliness of command.

Briefly, the story begins with Captain Rockwell Torry, USN, cruising off Hawaii in an obsolete ship on the day of the Japanese air strike on Pearl Harbour. Torry escapes that holocaust, but soon afterwards his ship is severely damaged in an encounter with the enemy. After a period of shore duty he is promoted Rear Admiral and placed in command of a mixed force whose task is the seizure of a Pacific island before the Japanese can reinforce their hold upon it. The names are the only imaginary things about it. That in fact was the situation faced by the Allied Pacific commanders on more than one occasion in the early days of the war against Japan. They had to gamble for big stakes with very slender resources. After reading this book any intelligent person ought to be able to appreciate the debt we owe to the commanders who shouldered the responsibilities.

Mr. Bassett served on the staff of the late Admiral W. F. Halsey who commanded the Allied forces in the South Pacific Area. Readers familiar with the bitter campaign in the Solomons will

probably arrive at the conclusion that Mr. Bassett drew heavily on that campaign for much of his background material. The situation he weaves up certainly existed there, particularly in the early days of Guadalcanal. One can say, therefore, that the story is set in an area which was, and is of vital interest to this country.

Australian readers will be surprised to find Royal Marines in the complement of an Australian cruiser, and all dressed up in red coats, too. Equally surprising was the plaque on the ship's bulkhead tracing her ancestry right back to the battle of Trafalgar, about a century before the Royal Australian Navy was born.

More important than these trifles, however, is the impression that emerges from the book of those attitudes towards others which have done so much to mar the American image in Europe and Asia despite the massive economic aid poured into those continents.

Mr. Bassett writes in a fine, easy and attractive style. He could be a good novelist if he learns how to achieve realism without copious draughts of coarseness.

— E.G.K.

THE BEDFORD INCIDENT, by Mark Rascovich. (Martin Secker and Warburg Ltd., London, and William Heinemann Ltd., 317 Collins Street, Melbourne.)

In the days of mass armies, when the main engagements were fought by millions of men, it used to be said that once the great powers had ordered general mobilisation war was almost cer-

tain to follow. The war machines were too vast to stop once they had been set in motion. But the decisions to set them in motion were usually taken by responsible statesmen after, it may be supposed, earnest thought about the consequences. General mobilisation could hardly get past the preliminary stage by accident, or through the mistake of a junior officer.

Two things changed all that — nuclear weapons and the cold war. With strategic bombers constantly on the alert, with inter-continental ballistic missiles sitting in their silos ready to be fired, with nuclear armed ships sailing the seas, with nuclear armed troops facing each other, what would once have been a bit of a skirmish between frontier guards becomes a very different thing. Instead of a few rifle shots and a casualty or two, such an incident becomes a much more massive affair, an affair which, with men standing by their firing buttons could escalate into terrifying proportions in a very short time. The space between the incident and the point of no return has contracted almost to vanishing point.

That this danger is appreciated on both sides of the Iron Curtain is shown by the fact that the USA and the USSR have recently established direct telephone connections by alternative routes between the two heads of government. But in the final analysis that safety device depends upon the personalities of the men at either end of the line. Given a hot tempered man

at one end and a nervy fellow at the other, a minor incident could still get beyond control.

The situation, of course, is ready made for the novelist, and in this book Mr. Rascovich has made the most of his opportunities. USS *Bedford*, an ultra-modern destroyer, is part of the NATO naval force in the North Atlantic, with the duty of patrolling Denmark Strait between Greenland and Iceland. Also in the area is a Russian submarine clandestinely making radar investigations of America's Distant Early Warning system. In the background are their respective refuelling ships.

The determination of the destroyer's captain to force the submarine to surface and disclose her presence in territorial waters becomes an obsession. Although he writes in a subdued style, the author vividly reproduces the ever-increasing ner-

vous tension and physical strain throughout the ship. In the end the inevitable happens — a junior officer, stretched to the limit of nervous and physical endurance, mistakes a phrase spoken in conversation for an order. It would be a pity to reveal the end of the story, particularly its final sardonic twist.

It has always remained for the novelist and the dramatist to express a situation in terms of universally experienced human emotions, to reveal the essence of the problem to every reader or beholder. The artist can make the truth understood more effectively than any amount of direct exposition.

Mr. Raskovich has much to say about a subject that is immensely important to us all, and he says it supremely well. And he tells a very good service story at the same time.

— E.G.K.

COMPETITION FOR AUTHORS

The Board of Review has awarded first place and the prize of £5 for the best original article published in the October issue to "A Visit to Berlin, Poland and the Soviet Union", by Lieutenant Colonel D. S. Thomson, MC, Royal Australian Infantry.

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