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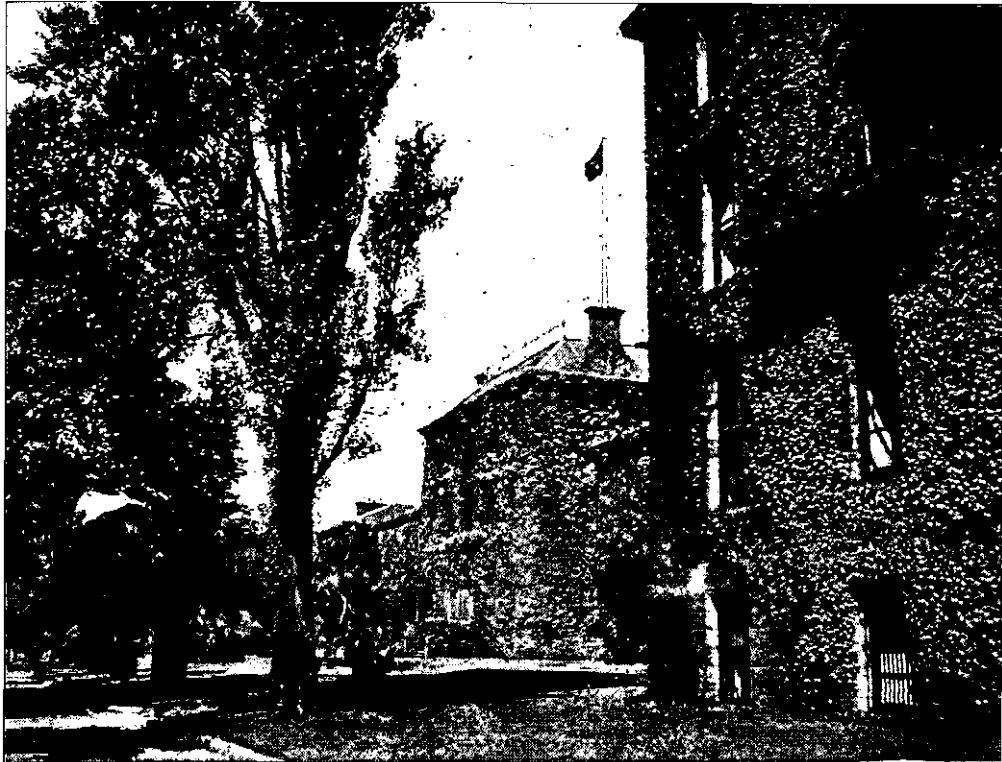
## CONTENTS

Canungra—Jungle Warfare Training Centre . . . . .	5
Atomic Training—Now . . . . . <i>Captain E. McCormick</i>	12
Gasoline or Diesel . . . . . <i>Major P. V. Stanton</i>	14
The Palestine Campaign 1914-18 . . . . . <i>Colonel S. A. F. Pond</i>	18
The Small Airborne Unit in a Long-Range Penetration Role <i>Captain E. McCormick</i>	21
Know Your Enemy . . . . . <i>Captain R. H. Mathams</i>	30
The Case for Social Studies . . . . . <i>Lieutenant P. Shekleton</i>	33
So You Can't Get On With the People Under You <i>Major-General the Rev C. A. Osborne</i>	38
The Role of Command in a Technical Service . . <i>Major Edwin B. Owen</i>	43

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VICTORIA BARRACKS, MELBOURNE

# AUSTRALIAN ARMY JOURNAL

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# Canungra

## JUNGLE WARFARE TRAINING CENTRE

ONE of the great surprises of World War II was the skill shown by the Japanese Army in the art of Jungle warfare — skill which resulted from thorough training and preparation, and not from the natural habitat of the Japanese soldier.

The first shock of the surprise carried the Japanese in a rushing torrent of conquest southward through Malaya, the Philippines, Indonesia and New Guinea. On the southeastern tip of that island, Australian troops broke the myth of Japanese invincibility by defeating them at the Battle of Milne Bay, 25 August-7 September 1942. This was the first defeat inflicted on the Japanese on land since they entered the war eight months earlier.

Soon after Milne Bay the Australian formations defending Moresby passed to the offensive and

drove the Japanese back along the Kokoda Trail over the Owen Stanleys to Buna. There, with the assistance of American formations, they destroyed the remnants of the Japanese army which had set out to conquer southern-eastern New Guinea.

To any troops the Kokoda Trail would have been an arduous campaign. To the Australians, many of them trained for desert fighting, all of them unaccustomed to the jungle, it was an agony of suffering, a triumph of the spirit over the flesh. Ignorant of the techniques of living in the jungle and fighting in the jungle, their casualties were abnormally high. Formations which boasted of their physical fitness, of their low sickness rate, were decimated by tropical diseases simply because the troops did not know how

to take care of themselves in the unaccustomed environment.

On the Kokoda Trail the Australian Army fought two enemies—the jungle and the Jap. In the pause that followed Buna the Army took a deep breath, and resolved that henceforth they would have only the Japanese to fight. The jungle they would make their friend. They would learn its secrets, learn the art of living in its depths. Instead of regarding it as an impediment to action, they would extract from it all the tactical advantages it offered. They would develop the techniques, the organization, the equipment necessary for pre-eminence in this form of warfare. In brief they would outclass the Japanese in jungle fighting.

They did all these things. They mastered the jungle and they mastered the Japs. The Mikado's troops, for all their special preparation, for all their experience, soon found themselves outwitted and outfought in every encounter, large and small. Before many months had passed the Australian soldier could beat his adversary, man for man and unit for unit, on any type of terrain. The sense of superiority felt by the Australian troops is well illustrated by the story of the commander of an Independent Company operating many miles from the nearest support in the wild country between Wau and Salamaua. The men were about to have their evening meal when they heard a Japanese LMG being tested in the jungle not far away. One of them looked up and said: "Shall we do them over now, Sir, or we shall have our meal first." That was not bravado. It was a simple, straightforward question

from a man supremely confident in his unit's ability to "do them over," and confident, too, that that was precisely what was going to happen. The only point in question was whether it would be done before tea or after tea.

While New Guinea Force was fighting its way over the Owen Stanleys, Brigadier R. G. H. Irving, on his appointment as Director of Military Training soon after his return from the Middle East in September 1942, appreciated the need for an establishment to train troops in jungle warfare. Accordingly he recommended to the Commander-in-Chief, who was at that time in New Guinea, that a jungle training centre be set up to train reinforcements for the Australian forces operating in the South-West Pacific. While awaiting the C-in-C's reply, the CGS directed First Australian Army, whose headquarters was at Toowoomba, to reconnoitre for suitable sites for the proposed centre. First Army submitted three sites for consideration, one at Canungra, one near Kyogle and one near Murwillumbah.

Further reconnaissance of these sites was carried out by Colonel Herbert B. Wheeler, an American officer attached to Advanced Headquarters, Allied Land Forces in Brisbane. After a close inspection of the sites, Colonel Wheeler recommended Canungra. Meanwhile the C-in-C had signalled his approval of the proposal to form the Centre.

Queensland L of C Area was ordered to have Canungra ready in four weeks' time. Colonel A. B. MacDonald, who was training independent companies on Wilson's Promontory in Victoria, was brought

up to become the first Commandant of the Jungle Training Centre. The first intake of 250 went in on 3 December 1942, and within a few weeks the Centre had 1000 men under training.

At this time the battle of Wau was brewing up and there was an urgent need of jungle-trained reinforcements. The first batch from Canungra was railed to Townsville, where they embarked in the troopship "Canberra." Ten days after leaving Canungra they emplaned at Moresby, and a few hours later were in action at Wau. The worth of the training given at Canungra was immediately apparent. The brigade commander reported that after a day or so it was impossible to distinguish the reinforcements from the old hands.

During the war many thousands of reinforcements passed through Canungra. The success of the Australian Army in its many actions in the South-West Pacific was in large measure due to the excellence of the training given at the Centre.

By virtue of its training and experience the Australian Army finished the war with a vast store of knowledge of jungle warfare. In the rapid run-down which followed the cessation of hostilities the Jungle Training Centre was closed, the installations removed and the leased land returned to its owners. This seemed all right, because there were tens of thousands of men of military age with jungle experience available, and because the strategic situation indicated that if war occurred the army would have to fight in a theatre where totally different conditions obtained. By early 1954, however, it became apparent that the

army might be called upon to fight in a theatre which contains large areas of jungle and semi-jungle country. About the same time an exercise revealed that many regimental officers of the Regular Army were unfamiliar with the techniques of tropical warfare. A comprehensive review showed that much of the store of knowledge the army possessed at the end of the war had wasted away. The bulk of the great reserve of trained manpower was rapidly approaching the age at which it would be ineligible for military service. Many of the experienced officers of the Regular Army and the Citizen Forces were approaching the retiring age. It was apparent that the stage would soon be reached where both regimental officers and formation commanders would be entirely lacking in jungle training and experience.

#### Organization of the JTC

Steps were at once taken to arrest this dangerous trend, and dangerous it certainly is for a country in Australia's geographical situation. Fortunately there were enough officers in the appropriate age group still in the Regular Army to set up a training establishment at which knowledge of jungle warfare could be preserved, developed and disseminated throughout the Army. The Military Board decided to reconstitute the old Jungle Training Centre, but with a greatly enlarged charter and a more elaborate establishment. The charter for the new Centre is:—

*To develop and promulgate on behalf of AHQ the AMF doctrines concerning training, organization,*

*maintenance and equipment for operation in tropical jungle.*

To enable it to carry out this charter the Centre was given the following organization:—

- Headquarters.
- Jungle Warfare Wing.
- Jungle Battle Wing.
- Research and Development Wing.

The task of the Jungle Warfare Wing is to:—

- (a) Conduct courses of instruction for officers, warrant officers and NCOs in the tactical handling and maintenance in the field of sub-units of all arms in operations in tropical jungle.
- (b) Conduct courses for Grade 2 staff officers, unit commanders and above in the tactical handling and maintenance in the field of units and formations up to divisional level in operations in tropical jungle.

Generally it may be said that officers attending these courses engage in the over-all study of jungle warfare, warrant officers study the mechanics of instruction, while NCOs are trained in the details of junior leadership.

The Battle Wing is organized to conduct battle courses for formed sub-units of up to company, etc., size, to orient their training towards operations in tropical jungle.

The task of the Research and Development Wing is to:—

- (a) Study and make recommendations concerning tactical and administrative doctrine relating to the operation, training, organization and equipment of forces in the jungle.

- (b) Prepare for publication the approved AMF doctrine of jungle warfare.

#### Starting the New Centre

The establishment of the original Jungle Training Centre in 1942 was a relatively simple matter. The only accommodation required was a war-time camp for soldiers, and once the required priority had been obtained money and materials were readily made available. The 1954 plan, however, visualized a permanent training centre in peace and war, with much wider responsibilities than the original Centre. Consequently more elaborate training facilities were required, as well as staff accommodation on Regular Army standards, including married quarters. However, peace-time budgeting methods and the scarcity of building materials and manpower so retarded construction that it soon became apparent that permanent facilities and accommodation could not be ready for a long time. But the need for the new Centre to start operating was urgent. Though the decision to send Australian troops to Malaya had not been taken at that time, it seemed probable that at least one battalion would be despatched in 1955 and that Canungra would have to train them in jungle warfare. Consequently, on the recommendation of the Commandant, the Military Board decided to proceed with training courses in a tented camp while the permanent buildings were being constructed.

Training on this basis has gone on throughout 1955. In January the Jungle Battle Wing began training 2 Battalion, Royal Australian Regiment, each company in turn com-



pleting a five weeks' course. They were followed by elements of other corps listed for the strategic reserve in Malaya.

In July the Jungle Warfare Wing began its first course for thirty Regular Army captains and representatives from the RAAF and New Zealand forces. In August the Research and Development Wing opened for business. Thus all three wings are now operating, their co-ordinated efforts being directed to fit into the AMF's doctrine of jungle warfare, of which Canungra is the proving ground.

### The Training Area

For the new Centre the Army acquired a large tract of land on the site of the original JTC at the foot of the McPherson Ranges. By arrangement with the trustees of the Lamington National Park and other landholders, several hundred square miles of splendid training country have been made available. The area contains dense rain forests, secondary growth, clearings, swamps, streams, hill country both gentle and precipitous, and enclosed valleys. The weather varies from cool in winter to hot in summer. While it offers pretty well everything required for training in tropical warfare, the area is free from malaria and generally healthy.

Some of the permanent buildings, including several family bungalows, are nearly ready for occupation. The two lecture rooms, which are about to be taken over from the contractors, are very well appointed and are probably superior to similar rooms at other Army schools. Some time will elapse before all the buildings are finished, but when they are

the JTC will be one of the best-equipped training installations in the country.

### The Training

#### Jungle Warfare Wing

There are two points of difference between the tactical exercises conducted by this Wing and the TEWTs normally conducted at other Army Schools. Firstly, there is always a real "enemy," represented by the demonstration platoon which forms an integral part of the establishment. Secondly, the people under instruction "learn by doing." They learn the art of living in the jungle by living in it themselves. They learn the difference between controlling and directing troops in densely enclosed country and doing the same thing in open terrain. They practice the science of jungle navigation, of moving surely and confidently from point A to B to C in wild, tangled country where there are no roads, no houses, where you can see neither the sun nor the stars.

#### Jungle Battle Wing

This Wing is organized to conduct courses for sub-units of up to company size to orient their training towards operations in tropical jungle. There is a great deal more in this than a person unaccustomed to working in densely timbered country would suppose. Quite apart from any question of direction and control, there is a world of difference between just moving with reasonable speed and quietness through even moderately dense forests and over open fields. To teach them this art sub-units are first put through the "obstacle course," in which they learn to negotiate the numerous hazards encountered in timbered

country. They begin in slow time, work up a gradually increasing tempo, and finish by doing the course at high speed accompanied by all the noises and distractions of battle.

Moving on to the "Shooting Gallery," the troops are taught how to recognize and effectively engage with great rapidity a variety of targets. Standing in a weapon pit, the soldier looks across a gully to numerous targets arranged on the opposite bank. Coloured bottles figure prominently in the assortment, and it is one of the mysteries of Canungra how they keep up the supply. The instructor gives brief fire orders in rapid succession. After a little practice the soldier is able to recognize and engage the target indicated with great rapidity. Especially the bottles. There seems to be something in human nature which delights in shooting a bottle to bits.

The soldier next learns to recognize and engage his own targets. Standing in a weapon pit, he looks across a little stream to a fairly open patch of bush, apparently devoid of anything worth shooting at. Sitting behind him an instructor manipulates wires which bring numerous targets to light. On the left a figure suddenly appears from behind a tree, on the right another comes to light shooting over a log. Across the front a dummy strung on a slanting wire looks remarkably like a man running rapidly down the slope. After a bit of practice he soldier becomes adept at shooting down targets which suddenly appear in unexpected places.

After that he goes through the "Sneaker Course." This is a narrow rack winding through dense jungle, over and under logs, around big

trees, through little clearings and deep gullies. Every now and then an instructor moving behind him reaches into the scrub and silently pulls a wire—and up bobs a target. When a soldier has completed this course he has learnt to be really quick on the trigger and to avoid the traps usually fatal to young players.

Individual instruction is completed by teaching the soldier how to live in the jungle, how to protect himself against its hazards, how to make his bivvy and prepare his food. He is then ready for tactical instruction, to learn how to move and fight as a member of a team. Sub-units are first shown how this is done by watching the extremely competent demonstration platoon at work. Then they go in and do it, attack, defence, withdrawal, ambush, checked by the instructors and opposed by the demonstration troops.

The patient, restrained and efficient training methods employed on these courses produce competent and confident jungle fighters. JTC instructors have whipped the Queen's enemies from Tripoli to the Solomons. They know war in all its aspects. If they say a unit is ready to fight, it is ready.

#### **The Research and Development Wing**

This enthusiastic little group is anything but doctrinaire in its outlook. They will consider any idea, have a go at anything. They are bent on shaping means to ends, on inventing, on testing and adapting methods and equipment to fighting in tropical jungle.

#### **Co-operation with RAAF**

The JTC has developed close co-operation with the Royal Australian

Air Force Station at Amberley. Consequently, practical demonstrations of inter-Service work can be laid on as often as necessary. For instance, there is no need to imagine that the food you are eating many miles away from camp was dropped from an aeroplane. It came just that way. It dropped remarkably close to the spot where you sent up your marker beacon and where you helped to collect it and recover the parachute.

### The Spirit of Canungra

In addition to jungle warfare, Canungra has another lesson for the Army. Despite the intensity of the training, its volume and its scope, there is a remarkable record of virtually complete absence of training accidents, vehicle accidents and major disciplinary incidents. Second only to the refreshingly earthy training programme, is the impression of smooth, competent administration, a silent reproof to the grouchers who complain that the demands of administration strangle the possibility of training.

Although the members of the staff have had to put up with a good deal of inconvenience, including lengthy family separations, their morale remains unimpaired. As the Commandant explained: "The soldiers know why they are here. They understand the significance of their work. They know that in accepting these conditions and making them workable, they have given Australia a gift of two years. At this critical time there could hardly be a finer gift."

The Jungle Training Centre is a place worth going to, for the excellence of the training you get and for the feel and the taste of the enthusiasm which permeates the whole place. The instructors, the demonstration troops, the cooks, the office staff, all seem dead keen on their jobs and imbued with missionary zeal. If you want to talk about fighting, Canungra is the place to go. They'll talk to you and listen to you until the cows come home for the morning milking — provided, of course, you talk about jungle warfare.

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# ATOMIC TRAINING - NOW

Captain E. McCormick  
Royal Australian Infantry

WHEN the fog of propaganda lifted and information on the capabilities and effects of atomic weapons became readily available, it was obvious that they were just a normal development in the progress of weapons of war. They posed no problems wholly new in total war, but emphasized old ones already apparent with the increasing use of air power and airburst shells.

What most of us want to know is how to tackle training for the immediate future, giving full weight to the atomic factor, pending clarification of the tactical implications and the organizations to meet them.

Firstly, all ranks need a grounding in atomic weapons and their effects. We have available already the AHQ DMT publication "Basic Atomic Training" which provides the unadorned facts as a starting point in teaching troops how they can still survive to fight under the conditions imposed by the atomic threat.

This training also will play an important part in removing the fear of atomic weapons by giving soldiers an understanding of them.

Certain aspects of individual training which have been important in the past now assume greater importance in protecting individuals against the effects of atomic explosions, at the same time preparing them to fight almost as a matter of instinct after an explosion has occurred.

The enemy must first find a target before he can use an atomic missile to destroy it. This places great emphasis on any forms of deception, whether by concealment and camouflage, movement and work at night, dispersion, vehicle and track discipline, or signals security.

These are the subjects in which soldiers must be highly trained to reduce the possibility of an atomic attack, whilst they must also learn to dig in at every reasonable opportunity to place a layer of earth between them and the heat, blast and radiation of an explosion.

These measures may seem passive, but in fact they are an active means of ensuring that soldiers can fight effectively. For the future, infantry soldiers anyway, must expect to fight with whatever weapons and

equipment are available after an explosion and, to do this, they must be trained to use any weapon in the battalion. As many as possible also must be able to operate all radio equipment and drive any battalion vehicle.

To carry this forward to collective training, carefully designed exercises can give all ranks a chance of meeting the difficulties they will face in an atomic battle and of overcoming them.

Our beginnings must be simple, since in the AMF at the present time we have neither the atomic background nor the training time to progress beyond the elementary stages.

Initially, collective protection must be superimposed on all training activities by day and by night. Primarily, this is protection by concealment and other means of deception, digging and dispersion, and can be summarized—

Concealment and camouflage.

Move and work by night.

Dig in whenever halted.

Maximum dispersion at all times. Operational necessity may conflict with these requirements on occasions, but they are stated as the ideal to give maximum protection.

Recovery exercises on the platoon and company level can follow, emphasizing that after an atomic explosion, the soldier's first task is to fight. The enemy can be expected to quickly follow up the advantage gained by the use of an atomic

missile and the actions of individual section, platoon, and company commanders, perhaps cut off by casualties or destroyed communications, might well decide the issue.

Simple training aids such as 2in. mortar flares and Verey lights can provide the "blinding flash of light" on which troops take action as if an atomic explosion had occurred. If troops remain fixed in the positions they were occupying or took up immediately the blinding flash of light was seen, the unit ABC Warfare officer can allocate casualties, then signal the go ahead for the rallying and reorganization drill.

Rallying from an atomic attack and reorganization with the survivors could even be a fairly simple exercise on the battalion level, providing a team of umpires can be trained by the ABC warfare officer.

These are things which can be done now, without waiting for atomic organizations and tactics, and, in fact, unless these things are done we will not be ready for any advanced training introducing the atomic factor.

In summing up, it is evident that our starting point must be a grounding in atomic training for all ranks. Following this, the subjects in individual training emphasized by the atomic threat must be covered thoroughly.

Even now, we can go further in collective training by exercising sub-units in collective protection and simple recovery exercises using the training aids we have available.

# GASOLINE OR DIESEL

Major P. V. Stanton,  
Royal Australian Army Service Corps

EVER since man learned to tame animals and put them to use he has employed some outside motive power to help him wage his wars, and doubtless heated discussions took place on the relative merits of such aids as the horse and the camel, the elephant and the yak. Today, however, animals have become less important, and the controversy centres on the gasoline and diesel engines used to power the army's vehicles. Without doubt the discussions are every whit as biased, heated and oft-times ill-informed as they were in the old days. This paper will attempt to consider the merits and demerits of each and point a possible solution. It will be brief, but includes some of the main factors involved in reaching a decision.

Since the army discarded horse-drawn vehicles in favour of motor transport the bulk of the motive power has been supplied by gasoline engines, except that some

heavy equipments use diesel fuel. This proved generally satisfactory, and since much the same position obtained in industry it followed that, firstly, if the army suddenly needed large numbers of vehicles they were readily available; secondly, there was a pool of skilled civilian drivers ready to be recruited to drive them; and thirdly, since oil refineries were governed by the laws of supply and demand, the emphasis in fuel production was on the lighter distillates (gasolines), so that in war they were already geared to produce the fuels the army most required. Latterly, however, civilian hauliers tend to use more diesel trucks and fewer with gasoline engines. In consequence the manufacturers of vehicles and refiners of fuels are adjusting their output accordingly. As this must eventually have an impact on the army, it is logical to examine vehicle policy generally and consider the advisability of a

general change-over to diesel engines.

At first sight the arguments favouring a change seem weighty, indeed. Since civilian transport agencies are competitive, their increasing use of engines burning middle distillates (diesel fuels) is an indication of increased efficiency. Further, the army depends for its vehicles on civilian manufacturers, and these are being geared increasingly to large-scale diesel production, and thirdly, by the impressment of private vehicles the army will acquire a fleet of diesels almost automatically upon the outbreak of war, and will have to operate and maintain them.

At present, while all the lighter army vehicles, and some of the heavy ones, burn gasoline, other heavy equipments use diesel fuel. For example, 6-ton trucks, the newer heavy recovery tractor and the Thornycroft Antar all burn gasoline, while the medium, 10-ton and older type of tractor and the Diamond T all operate on diesel fuel. In industry the trend is for all load carriers of two tons and over to become diesels, and it is this policy, if adopted, that would most affect army planning. Manufacturers, of course, aim to give the buyer the goods he wants. If more customers in the next few years are going to want more diesels and fewer gasoline engines, then, on the outbreak of war, manufacturers will not be able readily to switch over to the large-scale production of the very large numbers of gasoline engines and spares that will be needed. On the other hand, the army cannot afford to stockpile sufficient vehicles for its likely needs, nor would it be

prudent or economical to try to do so.

Other matters to be taken into account are standardization between allies, comparable performances of both engines and what is perhaps the over-riding consideration, the availability of fuel.

Since in any future conflict it is likely that Australia will be associated with Great Britain and the USA, their policies are pertinent. The British Army is still using gasoline engines, but may quite easily compromise on a long-term policy, while, as far as it is known, there is little likelihood of the American Army considering a change. The American Air Force is committed to gasoline-based jet fuels for its aircraft, while the RAF has decided on avtur, based on middle distillates. Avtur has been adopted largely because of the greater safety factor with high flash point fuels.

Advantages and disadvantages in the operation of gasoline and diesel engines are shown below:—

#### **Advantages: Diesel Engines**

1. Full power is developed immediately without a warming-up period.
2. In large vehicles less space is occupied by the engine and fuel tanks.
3. Maintenance is less involved and overhauls less frequent since there is no ignition system.
4. Mileage per gallon rises by about 50 per cent.
5. Idling for long periods produces no ill-effects.
6. Exhaust gases are not toxic.
7. There is less tendency to form vapour locks in extreme heat.

8. There is less radio interference.
9. The fuel is less likely to catch fire, and this is good for the crew's morale.
10. Proofing is easier against dirt, mud and corrosion.
11. There is a considerable saving in the overall quantity of fuel to be supplied, and this would greatly ease the burden on supply lines.

#### **Disadvantages: Diesel Engines**

1. Fuel containers are oily and pick up grit.
2. Engines are more critical of dirty fuel.
3. Gasoline fires are easier to extinguish, and diesel fuel dumps are harder to set alight if it becomes necessary to destroy them.
4. Engines may be up to 25 per cent. heavier than gasoline engines of the same maximum power output.
5. Exhaust gases produce more smoke than gasoline engines.
6. Engines are noisier.
7. The torque is not as good as it is in gasoline engines.

From this it may be claimed with truth that if performance be the sole criterion, then despite the efficiency of the modern gasoline engine it is not to be compared with the diesel for service conditions.

Against this, however, there must be an assurance of an adequate fuel supply, and—despite the lesser bulk to be transported—here lies the major difficulty.

Petroleum fuels are obtained by refining crude oil, which, within limits, yields fixed proportions of

the various grades. Gasolines come from the lighter and diesel fuels from the middle distillates. With present refining methods it is almost axiomatic that if greater quantities of the middle distillates are to be produced, then more base stocks (crude oils) will be required, and proportionately greater quantities of the lighter distillates (gasolines) will be produced as well. This is not true if greater quantities of gasolines are required because modern methods of "cat-cracking" and "platforming" enable greater yields to be achieved of these grades at the expense of the heavier distillates without increasing the quantity of the base stock. If, however, greatly increased quantities of the middle distillates (diesel fuels) are required it is possible that in the not far distant future it may be necessary to return unwanted gasoline to the ground from which it was obtained.

Increasing the yield of gasoline at the expense of kerosene and diesel fuel is fairly simple, but if more diesel fuel is to be obtained without the addition of extra base stock the only known processes are experimental, commercially untried and expensive. They involve catalytic cracking of the residual fuel oils, distillation of the residuals to coke and synthesis with the lighter grades. None is likely to be economically feasible for a long time, and the increased yield would have little significance.

It is improbable, therefore, that the oil companies could sufficiently increase the yield of middle distillates to cope with wartime requirements if gasoline-engined vehicles were displaced by diesels.



Under present conditions extra supplies of gasoline are made available in wartime by rationing fuel for civil use. Stocks of diesel fuel would not be affected similarly, because most of the peacetime consumption of this grade is for essential services and a negligible amount is used for pleasure. In addition, any diesel vehicles impressed by the army — and there would be many of them — would probably do more running and use more fuel than prior to impressment. There would be no surpluses available from these sources for field use.

The almost inevitable shortage of fuel, then, is the most single important reason for retaining the gasoline engine.

To summarise, a complete change-over is impracticable at present because:—

- (a) The full output of middle distillates would be committed in the event of war for essential civil services, existing service requirements, and RAAF aviation fuels — of which the last might well be the greatest.

- (b) A significant increase in the yield of middle distillates from a given quantity of crude oil is unlikely.

- (c) Existing gasoline engines are efficient, even though they are less so than diesels.

There is, however, a solution which may be feasible and deserves attention. The gasoline engine has a compression ratio of the order of about 7 to 1, as against the diesel engine ratio of about 16 to 1. If an engine with the latter ratio could be developed to use a specialised fuel injection system so timed to enable it to operate equally well on gasoline or diesel, the result might well be gasoline performance with diesel economy. The other advantages from the supply point of view are manifest.

For the present, and until either refining difficulties are overcome or such an engine is developed, the answer may be to partly follow industry and change to diesel all vehicles carrying a load of six tons or over. This could give a considerable gain in efficiency without an undue strain on the fuel commitment.

# THE PALESTINE CAMPAIGN

1914 = 18

Colonel S. A. F. Pond, OBE, ED (RL)  
Royal Australian Infantry

**I**N studying military history students should strive to follow the main course of events rather than to become immersed in details. It is only by such an approach that the student obtains the over-all picture and appreciates the real lessons of the campaign which he can apply to his own problems. Thus the student who fails to appreciate the main points of Allenby's plan for the Megiddo breakthrough, but is concerned with what each unit had to do in the battle, has lost the whole point of his study of the battle. The purpose of military history is partly to broaden the mind of the student, partly to provide him with the experience of past battles which will be of practical help to him when he engages in his own battles and has to cope with their problems.

As a preliminary to the study of any campaign, the student should always obtain a general understanding of the political events leading up to the campaign and affecting the conduct of it, of the ground strategy into which it fits, and of the geography of the country in which it was fought.

The student must be a keen studier

of maps, for very often these show that the key features of the campaign depend on the terrain. The student should always be ready to use maps and sketches to illustrate his answers at an examination. By so doing he will usually save words and make his points clearer.

The student should always be on the look out for features of the campaign which apply or do not apply to modern conditions of warfare. By doing so he will get the most out of his study, and will convert it from a routine reading of a book into an interesting intellectual exercise.

While the student of the Palestine Campaign will no doubt concentrate on Colonel E. G. Keogh's book, "Suez to Aleppo," which can readily be obtained from Command and formation pools, he will be well advised to study Field-Marshal Lord Wavell's "The Palestine Campaigns," for a very readable and thorough account of the events.

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Suez to Aleppo — Colonel E. G. Keogh.

The Palestine Campaigns.—Field-Marshal Lord Wavell.

Official History of Australia in the War of 1914-18, Vol. VII, Sinai and Palestine—H. S. Gullett.

Military Operations in Egypt and Palestine, Vols. I and II.—War Office Official History.

Outline of the Egyptian and Palestine Campaigns—Major-General Bowman-Manifold.

#### Purpose of this Exercise

The purpose of this exercise is to assist the student to prepare himself for examination in military history on the Palestine Campaign. In this issue of the Journal ten questions are set, together with a note setting out the aim of the questions. The student will find the information to formulate his answers in Keogh's "Suez to Aleppo" and Wavell's "The Palestine Campaigns." The suggested answers to the questions will be published in the under-mentioned issues of the Journal.

Questions 1-3: February.

Questions 4-7: March.

Questions 8-10: April.

The exercise will have little value unless the student really gets down to it and writes his own answers to the questions BEFORE they appear in the Journal. If he does this he will learn a great deal by—

- Working out the problem for himself.
- Comparing his own solution with the solution given.
- Training his mind to get the best value from a study of military history.

Finally, the student is reminded that there is no substitute for work. Without it we can neither pass examinations nor equip ourselves for

the discharge of our military responsibilities.

#### The Questions

##### Question 1

*State the main reasons why the campaign in Egypt and Palestine was begun, and show the subsequent changes of policy in regard to the aims of the campaign.*

##### Aim of the Question

To stress the changes of policy in regard to the aims of the campaign so that the student will appreciate the effect of changing policy on the conduct of operations.

##### Question 2

*Describe the Turkish attack on the Suez Canal in February 1915, and the lessons learnt from it.*

##### Aim of the Question

To obtain from the student a description of the aim of the attack, the manner of its execution, and the lessons to be learned from it.

##### Question 3

*Describe the plan and course of the first battle of Gaza and comment on it.*

##### Aim of the Question

To study the battle and deduce lessons to be learnt from it.

##### Question 4

- Give a summary of the appreciation made by General Chetwode in May 1917.*
- State the main features of the British plan for the third battle of Gaza and comment on the most important aspects of it.*

##### Aim of the Question

To study the plans for the third battle of Gaza.

##### Question 5

*Describe the chief administrative*

problems in connection with the third battle of Gaza.

#### **Aim of the Question**

To consider the administrative difficulties attendant upon the plans for this battle.

#### **Question 6**

What were General Allenby's reasons for deciding to hold the Jordan Valley?

#### **Aim of the Question**

To illustrate the need for flank security, the need for preparing a solid basis for future operations, and the need for planning well ahead.

#### **Question 7**

Describe Allenby's plan for the main breakthrough of the Turkish Megiddo Line, which began on 19 Sep 18.

#### **Aim of the Question**

To study the general principles of the plan.

#### **Question 8**

Do you consider that the campaign in Egypt and Palestine affords any lessons which can be applied to modern warfare? Give your reasons.

#### **Aim of the Question**

To show that the Principles of War as now accepted can be illustrated by the campaign.

#### **Question 9**

Give six illustrations from the Palestine campaign of the importance of surprise, and briefly describe them.

#### **Aim of the Question**

To stress the importance of surprise and its decisive effects.

#### **Question 10**

At page 234 of his "The Palestine Campaigns" Lord Wavell says this:—  
"The Palestine campaigns have been acclaimed as a triumph for cavalry and as the vindication of that arm in modern warfare . . . But the true lesson is not so much the value of the horseman as the value and power of mobility, however achieved."

Comment on this statement and indicate what role you consider mechanized troops could have played in the campaign.

#### **Aim of the Question**

To study the factor of mobility in warfare.

# The Small Airborne Unit in a Long Range Penetration Role

Captain E. McCormick,  
Royal Australian Infantry

LONG range penetration units have a definite place in any Army Order of Battle today. General Wingate's second Chindit expedition proved the effectiveness of such forces. During this campaign his force completely disrupted the communications of the Japanese 18 Division, and this made a large contribution to General Stilwell's successful advance on Mykityina. In addition, the Chindit operations had a decisively adverse effect on the projected Japanese attack on India. Wingate employed a complete division; landed, supplied and supported by air. In any future war, operations by such a force will be carried out by divisions of an airborne army and not by any special force raised and trained for that job alone. It is equally obvious that such an operation, involving large-scale air support, will be extremely costly, and may well be beyond the means of all but major powers such as USA, Russia and Britain. However, in SE Asia.

there is scope for the operation of smaller airborne units up to brigade size, which, if co-ordinated by theatre HQ, will have a far-reaching effect and results out of all proportion to the cost and size of the force employed. This is obviously a task for the smaller nations' airborne forces. Such operations allow the small airborne unit to act independently, and this in turn is much better for the morale of the nation than allowing their airborne units to disappear into obscurity as minor parts of an allied airborne army.

What sort of operations would be carried out by the smaller airborne units? Before answering this question, it would be advantageous to have a look at SE Asia and its terrain to see what effect this will have on operations.

For our purpose SE Asia includes Malaya, Thailand, Indo-China and possibly Burma. It is in these areas that we must first be prepared to meet aggression by

a determined and powerful enemy. The complete area is generally a mountainous, jungle type country with few good roads and bad communications. In such conditions the employment of armoured and motorized forces is largely curtailed; the main operations are carried out on foot. The roads are of great importance as supply routes and as units will operate far to the flanks of these roads, air supply is also of the greatest importance. If the forces at the front are to be assured of supplies, these roads and the necessary airfields must be secure. It is obvious that the side which can successfully disrupt its opponent's communications by road and by air is well on the way to success. Such country and conditions are ideal for small airborne unit operations. The campaign in Italy in World War II proves that it was not possible to stop an adversary's flow of supplies and reinforcements by air force action alone. This fact was again proved in Korea and again during the war in Indo-China. Thus we come to the tasks of the small airborne unit or raiding forces.

Airborne raiding forces can profitably be employed on the following tasks:—

- (a) Attacks on airfields and demolitions;
- (b) Attacks on and demolition of the enemy's main supply routes;
- (c) Attack and destruction of specialist installations, e.g., radar;
- (d) Elimination and capture of enemy political and military leaders;
- (e) Reconnaissance of routes and enemy movements;
- (f) Reconnaissance of targets for air attack;

It will be noted that the tasks fall into two groups:—

- (a) Offensive Tasks.
- (b) Reconnaissance Tasks.

#### Offensive Tasks

Airfields are particularly vulnerable to ground attack. The destruction of aircraft by ground forces is as effective and much cheaper than their destruction by air forces. The enemy is forced to disperse his aircraft to protect them from air-strikes. The greater the dispersion the greater the opportunity for raiding forces and if, owing to successful raids, he is forced to concentrate his aircraft, they automatically become excellent targets for destruction by the air force. During the Indo-China war the Viet Minh were well aware of this fact, and their attacks on Franco-American aircraft in the last year of the war were highly successful. A large number of planes was destroyed on the ground at little or no cost to the raiders.

Main supply routes are very vulnerable to attack by raiding forces. They cannot be garrisoned throughout their entire length, and a series of ambushes, combined with demolition of culverts and bridges on roads and railways, will compel the enemy to deploy troops that could be better used elsewhere, in an attempt to protect his communications. During the retreat in Malaya, Lt-Col Spencer Chapman, in a period of 14 days, accompanied by two companions with 1000 lb. of plastic explosive and 200 gren-

ades, successfully derailed seven or eight trains, cut the railway line in 60 places, damaged or destroyed 40 motor vehicles and killed or wounded up to 1500 Japanese soldiers. He convinced the enemy that a force of at least 200 men was operating in the area, and caused them to deploy 2000 men on counter measures. When it is realised how little organization there was, and that this had completely broken down by the time the operation took place, it is obvious that the employment of well-trained raiding forces will result in substantial rewards for a small outlay of men and material.

Attacks on specialist installations and the elimination of enemy leaders are related, inasmuch as such operations will either be carried out whenever an opportunity presents itself, or on instructions from higher formations. Operations such as the kidnapping of General Kreipe by the SAS on Crete will always be possible, and the destruction of radar stations and similar installations is always profitable.

#### Reconnaissance Tasks

Much useful work can be done by raiding forces in reconnoitring routes and reporting the movements of enemy formations and transport. If this is combined with the raising of an indigenous information service manned by the local population it can have valuable results.

Reconnaissance of suitable targets for air attack will generally be as a result of information passed by higher HQ or by the chance encountering of such suitable targets as supply dumps, etc. A Chindit

officer stumbled on just such a main supply dump, and as a result the area was thoroughly reconnoitred and marked by the raiders, and later successfully destroyed by our air force.

The main tasks of all raiding forces should be offensive, and the reconnaissance tasks should only be undertaken when the opportunity occurs or as the situation demands. It cannot be stressed too often that the results which can be gained from offensive operations by raiding forces are out of all proportion to the men and equipment employed. Such tasks can be carried out whether our main forces are advancing or retreating.

#### Method of Operation

Small raiding forces can be divided into two sizes:—

- (a) The brigade size;
- (b) The battalion or smaller size.

The brigade size force presents no great problem, as it would operate along the lines laid down by Wingate. A stronghold with an airstrip is used as a base from which the various operations are carried out by columns which proceed independently to the target, then combine into a force capable of a brigade attack. On the completion of the attack they again move off in columns to the next scene of operations. This sort of operation is dealt with very thoroughly in books by the various Chindit leaders. The brigade force will tend to be the exception, and so we will concentrate on the raiding force of battalion strength and below. Similarly we are dealing with forces which are to remain

for a period in the area of operations, and we shall not discuss such coup-de-main raids as attacks by a small force on a radar installation, its destruction and their immediate withdrawal.

In all raiding operations the first phase will be the establishment of a base. This base will be a refuge and a supply dump for the raiding force, a place where they can rest and refit with reasonable security. It must include a water supply, and should be established in the most unfrequented and unapproachable spot in the area of operations. In the battalion size force the base will be along the lines of the Chindit stronghold, but without the artillery support, or the airfield capable of landing transport aircraft. It can, however, include a small plane strip which can be used for re-supply and medical evacuation. It will allow at least one company to obtain some rest while the other companies continue to operate and keep up the tempo of attack. In the case of smaller units such as companies or platoons it is not possible to form any defensive stronghold capable of beating off a large enemy attack. This means they must establish two, three or even more bases each in an isolated area and containing a cache of arms and supplies. Their main defence is the isolation and the rough country surrounding the base, which will enable them to achieve sufficient warning to slip off before the enemy's counter-blow falls. Both types of bases should be extensively booby-trapped to discourage prowlers and give warning of any persons approaching. Similarly, the protection of both will to a large extent be passive and depend

on sufficient warning of the enemy's approach, although the battalion base will be in a position to give a sharp lesson to most sizeable enemy units approaching their area.

### Methods of Transportation

There are three methods of transporting troops to the area of operations:—

- (a) Infiltration on foot;
- (b) By Sea;
- (c) By Air.

#### Infiltration on Foot

This method was demonstrated by the infiltration of 77 Bde complete with animal transport, during the 1st Chindit Operation and again by Brigadier Ferguson's column on the 2nd Chindit Operation. Although feasible, it has its drawbacks when it is considered that the operations of the raiding forces will take place beyond the deep reconnaissance cavalry commando screen of the main forces, and the scene of the raiders' operations will be anything from 100 to 250 miles behind the enemy front line. Such a march would result in a useless expenditure of energy before the scene of operations had been reached and would cut down the time spent on raiding operations.

#### By Sea

On any coastline this method is always applicable, but unless the scene of operations is on or near the coast, the same difficulties as in Method One would apply. Added to this would be the time spent at sea and the possibility of difficulties during amphibious landings.



This method appears much more suited to short-range penetration.

### By Air

This method appears the most feasible, and in using it four types of equipment may be employed:—

- (a) Transport Aircraft;
  - (b) Helicopters;
  - (c) Gliders;
  - (d) Parachute.
- (a) **Transport Aircraft.** Such aircraft and even assault transports need at least a rough airfield to land and take off from. In the use of small raiding forces this would not generally be possible, and this would tend to eliminate the landing of forces by such aircraft, especially as the troops would need to be landed in exceedingly rough country.
- (b) **Helicopters.** The use of helicopters has great possibilities, and the US Marines have already demonstrated their usefulness in landing troops in Korea. However, in primary jungle they would need at least a small clearing to land or come close enough to the ground to unload troops;
- (c) **Gliders.** By this method, again a clearing of some sort is needed, and although the gliders may later be snatched off nearly all operations involving two or more gliders have been characterized by the complete wrecking of at least some of the craft. Such wrecked craft would act as a pointer for enemy air reconnaissance.

- (d) **Parachute.** The rapid advance of the parachute landing technique has made landings in any sort of jungle practically normal operations. The parachutes can be collected quickly on landing and hidden or destroyed. The raiders can drop with all their normal equipment, and apart from the ever-present problem of dispersion on landing this would seem to be the best method of landing raiders.

It is obvious, therefore, that although transportation by foot and by sea is perfectly feasible, by far the best method is by air. By the air method, the parachute landing is best suited to such forces, but helicopters also have distinct possibilities.

### Factors Affecting Raiding Operations

There are certain factors that have an important bearing on the success of raiding operations:—

- (a) The air situation;
- (b) The attitude of the local population;
- (c) The treatment of casualties;
- (d) The length of service in operations;
- (e) Radio communications.

In any raiding operation, the wholehearted co-operation of the air force is essential to success. The raiders are dependent on them for transportation, re-supply and tactical air support. It is obvious that the air situation will have a decided effect on any raider operation. If we have air superiority in the area there is no problem. But if we are inferior or a state of air

parity exists, operations become much more difficult. If such a state does exist, it will be necessary to transport and supply raiding forces under cover of darkness. This presents obvious difficulties, but nothing that cannot be overcome by co-operation between the two services. Each service must understand the other's problems, and the fact that although the raiders are dependent to a large degree on the air force, the raiders' operations will in turn be of the greatest help to the air force.

The attitude of the local population in the area of operations is also important. Obviously, a friendly population will be an invaluable asset, as an unfriendly one will be a dangerous nuisance. The Asian peasant tends to be practical in his outlook and not particularly interested in who controls his country as long as he is not interfered with. There has, however, been a great upsurge of nationalism and ideologies in SE Asia. In the next war loyalty to the nation and to a particular ideology such as communism, will be mixed, and both sides will have sympathisers in the same areas. This will mean that the loyalty of even families will be divided, and if close contact is established with the locals at the beginning of raiding operations, security will be seriously impaired and the strain on the raiders will be greatly increased. It will be better at the commencement of operations if all contact with the local population is avoided. Nothing succeeds like success, and successful operations will undoubtedly bring the locals sympathetic to our side into the open. Then and only then can they be of use to us, and

a valuable information system can be organised from amongst this local population. The attitude of the troops to the locals is also important. We must remember that Chinese Communism offers great advantages to the peasant, and that the communists have long ago seen the need for amicable equal relations with them. Our soldier must realize that the Asian is an equal human being with the same hopes and aspiration as ourselves, although, perhaps, with a different outlook. He must feel he is regarded as an equal. If this is done, the people will quickly realise that they are regarded as friendly equals, and a big step towards their active co-operation will have been achieved.

#### **The Treatment of Casualties**

Quick and efficient treatment of all casualties is vitally necessary if the morale of the raiding forces is to be maintained. This means that serious casualties must be evacuated quickly from the area and obtain the necessary treatment. This can only be done by air. It will be the job of light aircraft or helicopters. The air situation will have an important effect on its success, but even in the worst air situation a determined effort will result in all seriously wounded having a chance of recovery. This is extremely important, and in General Wingate's opinion lack of means to ensure the evacuation of casualties has a worse effect on morale than any other factor.

#### **Length of Service in Operations**

The length of time the individual soldier can spend on actual operations without any appreciable de-

crease in his efficiency will be variable. General Wingate said that twelve weeks was an average period to expect the soldier to remain in operations. This means that if operations are to be continuous, a system of reliefs must be instituted.

### Radio Communication

The raiders must depend on radio to contact their HQ and for intercommunication between the columns. Without it, their effectiveness will be severely curtailed, if not completely destroyed. They must have lightweight sets capable of long-range work under adverse conditions. Every raider must be able to operate these sets, and the signal element must be experts. Everything depends on the success of the communication system, and its importance must not be underestimated.

### Organization

In his report on the 1st Chindit Operation, Wingate stated: "Ignorance is our main weakness. This is not realized. Long Range Penetration will be a dismal failure unless it is conducted from one centre with one plan, one doctrine, one training and one control in the field." This ignorance was not confined to the Chindits. It was noticeable in all raiding forces in World War II. It was responsible for the suspicion with which conservative formation HQ treated raiding forces. It was responsible for the confusion that resulted when the LRDG and the SAS operated in the same area in North Africa without each other's knowledge. It was responsible for the different methods

of training in the various raiding forces and for preventing the maximum results being obtained from their efforts. This must and can be avoided in the future employment of raiding forces.

Raiding forces must have their own HQ. This HQ will be responsible for all aspects of raiding forces. It will be responsible for training and the use and control of raiding forces in the field. Its Commander will, like the CRA or CRE, not only command the raiding forces in the theatre, but will be the theatre commander's adviser on their employment and capabilities. He would have a staff to help him. This need not be large, as matters such as supply, etc., can be conducted through the existing formation channels. It should contain an air force LO to advise the raiders and put their point of view to the air forces.

The HQ would control in a theatre three raider battalions, each of three rifle companies and a support company. The support company would consist of an assault pioneer platoon, a mortar platoon, a signal platoon and a recoilless rifle platoon. Each platoon to be of three sections capable of giving really expert support to any of the rifle companies. In addition, each raider unit in the field would have its own air contact team attached from the air force.

Thus, whether the force was acting as a brigade on the theatre front or whether the battalions were detached to support lower formations, it would always be capable of continuous operations with one unit in the field, one unit in

training and reserve and one unit at rest. At all times it would be under central control of raider HQ.

#### Selection of Personnel

All raider personnel will be selected from volunteers of all arms. If we again turn to Wingate, we see that in his opinion the effectiveness of the Chindit Operations was severely curtailed by the type of soldier employed. The theory that any infantryman could do the job is wrong. Wingate lost 40% of his force by the time the training period was completed, and a very small percentage of the veterans of the actual operations were considered to be of sufficiently high a standard for further use in future operations. We must learn from the mistakes of the past. The raider must be a first-class soldier, with mental and physical courage, great powers of endurance and eager and willing to fight.

#### Training

Each recruit for the raiding forces must be an efficient infantry soldier and then, only then, will he commence special raider training.

#### Individual Training

This will consist of:—

- (a) Parachute Training, an exceedingly minor part of the training programme.
- (b) Physical training, including swimming and close combat.
- (c) Demolition training. Every soldier must have a good working knowledge of the use of explosives.
- (d) Support weapons. Every soldier must have a good working knowledge of all the support weapons.

- (e) Enemy weapons. Every soldier must be as familiar with the enemy's weapons as he is with his own.
- (f) Driving. Every soldier must be capable of driving the various types of transport used by our own and the enemy forces.
- (g) Signals. This is extremely important, and every soldier must be capable of efficiently working the various types of radio used by the force.
- (h) Map and compass work. Every soldier must have a solid grounding and be confident of finding his way around the country.
- (j) Jungle Living. Each soldier must know how to make himself comfortable in the jungle. He must be able to cook and exist on the type of food eaten by the natives of the area and on the various other odd things, e.g., snakes, monkeys, etc., which are edible.
- (k) First Aid. Each soldier must have a good knowledge of first aid if he and his comrades are to survive.

#### Collective Training

- (a) Jungle Marching, including endurance marching, bivouacking on the march and navigation.
- (b) Air Support Training, encompassing such things as the reception of air drops, air evacuation, preparation of light plane strips and close support by bomber and fighter aircraft.

(c) Guerilla Tactics. Each man must be fully conversant with this type of highly mobile fighting, the doctrines of which are broadly laid down in Mao Tse-tung's little jingle:

When the enemy advances  
we retreat,

When he is passive we  
harass,

When he retreats we ad-  
vance,

When he is tired we attack.

(d) Communications. The whole system of signals must be thoroughly tried and tested under all conditions expected in operations.

(e) Small boat handling and river crossing.

Versatility is the keynote of the successful raider. He must attack where least expected, then rapidly move away to appear in another area. All types of collective training will go on together, and will be combined in various schemes and mock operations. All training must be carried out under realistic conditions, conditions as near the real thing as possible. This will weed out the various types of unfit and result in a tough, well-trained, con-

fidant, hard-hitting force of soldiers, masters of their trade and anxious to do battle with the enemy.

### Conclusion

There is a definite place in our Order of Battle and a definite role for the raiding forces. The raiding force is a highly trained volunteer organization, capable of creating havoc on the enemy's L of C. It has its own command and staff and works in conjunction with the theatre commander's plan. Its operations will be of great material assistance to the ground forces. It will be dependent on air for supply, transportation and medical evacuation, although capable of landing by sea or infiltration by foot. It is in support of the formation to which it is attached, and is in no way a private army.

This paper in no way claims to be a complete treatise on raiding forces. It demonstrates the potential of such forces, and thus hopes to spread interest in such operations and get others to expound their ideas. One thing, however, is definite. The proper use of raiding forces will result in rewards out of all proportion to the small number of men and amount of material employed.

# Know Your Enemy

Captain R. H. Mathams, M.C.,  
Australian Intelligence Corps

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"Some people are intelligent in knowing themselves but stupid in knowing their opponents, and others are the other way around: neither kind can solve the problem of learning and applying the laws of war.

—Mao Tse-tung"

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**A**LL of those officers who have grimly plodded through a written appreciation, either in earnest or in exercise, must have stumbled at that barrier marked "Relative Strengths." The facts generally seem clear enough; we have so much of this and so many of that, the enemy has a certain estimated strength. What deduction can be drawn? What deductions do we draw!

Might I suggest that a reason why our deductions are either blatantly obvious or dismally trite is because our facts are not as clear as they appear.

## Know Yourself

Consider first the things we know about our own military forces. We all have an understanding—in differing degrees—of the principles of war as enunciated by our military leaders. We all have have a knowledge, again in differing degrees, of the arms and services that make up our own army and of the other two Services. It is to be hoped that we

all have some knowledge of the new weapons, devices and techniques that are being introduced into warfare and an appreciation of their effects on tactics and on us, as individual soldiers. Finally, we have an almost intuitive understanding of the psychological impulses that prompt our reactions to certain sets of circumstances.

We are thus well armed mentally to assess the performance and capabilities of a certain number of our soldiers armed with a variety of our weapons. A correct assessment so made takes us part, but **only** part, of the way to an intelligent and logical deduction from the facts at our disposal. For the rest, we must know our enemy.

## Know Your Enemy

Consider what this entails. If we assume that our enemy's weapons, the organization of his forces, his methods of training, his psychology and his philosophy of war are similar to ours, then the rest is easy.

And in most cases this easy way is the one taken, leading to a result that no doubt looks well on paper, but which must surely lead, in practice, to serious mistakes.

To appreciate properly the enemy's strength, it is essential that we know how the enemy organizes his forces, what weapons he uses, how he uses them, and in what characteristics they differ from ours. Moreover, it is necessary to know his principles of war, for these dictate his tactics, and what training and experience he has had in the use of weapons and in the co-ordination of various arms. Finally, it is necessary to know something of his psychology: how does he react to success and in defeat, what is his attitude to war, what causes his patriotism, his stubbornness or apparent stupidity.

His strength will lie not only in the number of his weapons and his ability to use them, but also in the spirit with which he employs them.

#### Source of Knowledge

Knowledge of the enemy can be obtained in war, but the acquiring of it is then a bloody and expensive business. It can also be obtained to a large degree in peace, when its acquisition should not be the close-guarded duty of a few specialists or the hobby of enthusiasts, but the duty of every soldier irrespective of rank or corps.

Military intelligence in peacetime can provide details of foreign military forces and their equipments, together with information on the training and battle effectiveness of those forces. The battle experiences of our own and allied forces can teach us something of

the tactics and employment of arms of potential opponents. The published writings and daily actions of the leaders of our potential opponents can give us an insight into this philosophy and psychology. All this can provide us in peacetime with the knowledge we will require in war. But knowledge is useless unless we can apply it.

#### Application of Knowledge

Why not use this knowledge of the enemy in our training? We are constantly exhorted to make training realistic. Let us then be realistic enough to give our exercise enemies a real name, and let them act and react as we suppose they would in the light of our knowledge of them.

I do not suggest that we should all become specialists in enemy tactics, but I do suggest that exercise umpires, the directing staff of TEWTS and the commander of an exercise enemy should be adequately briefed in the tactics, psychology and national characteristics of the enemy against whom we are exercising. Furthermore, I suggest that realism demands that exercise umpires use the characteristics and performance of enemy weapons and equipments as a yardstick in their judgments of the effects of "enemy" fire.

In any foreseeable future war we will, at least initially, be at a definite disadvantage. We will not be able to afford time to learn from either the enemy or our own mistakes. Let us therefore make our mistakes now, in training against a realistic enemy and, by learning from these mistakes, be better equipped mentally for future conflict.

**Conclusion**

An ancient Chinese military proverb, quoted by Mao Tse-tung in a lecture to students of the Chinese

Red Army College says: "Know your enemy and know yourself, and you can fight a hundred battles without disaster."

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Among some circles today, there is sometimes a tendency to believe that modern wars may be quickly won by means of mass destruction weapons which will make unnecessary the operations of ground combat forces. No assumption could be more dangerous, if used as a basis for planning.

Entirely apart from the employment or non-employment of mass destruction weapons, a primary issue in combat is the destruction of the enemy's will to fight. Experience indicates that, when a people is devoted to its cause, its will to fight endures as long as its capability of fighting continues. In short, enemy resistance would continue so long as enemy armed forces could continue in combat. Ultimately, only ground forces can defeat enemy ground forces. And because enemy air and naval forces must operate from land bases, the seizure and occupation of such enemy bases by ground forces are important contributions to the achievement of victory at sea and in the air.

And finally, since defeat of the enemy armed forces is not an end in itself, but only a means to an end, the victory must be consolidated. Domination over land and the enemy people occupying it must be gained and maintained, and only ground forces have the capability of so doing.

Obviously, none of the Army's tasks and missions can be carried out effectively, without full support and assistance from the air and naval members of the team. Control of the air and the sea is essential to the projection of our military power overseas. However, the location of Army units on the ground is a true index of the progress of armed warfare. There is a direct analogy in football. If your ball advances, you win. If it is pushed back, you lose.

—General Matthew B. Ridgway, US Army.



# The Case For Social Studies

Lieutenant P. Shekleton,  
Australian Army Education Corps

How many times are Education Officers asked, "What is this Social Studies course all about?"! Sometimes the questioner is genuinely interested; sometimes he knows half the answer and thinks of social studies as a study of nebulous and often unrelated facts about Australia—something like a pot-pourri of history and geography. The object of his questioning is to bait the E.O. concerned, and he usually goes on to query the reasons for the inclusion of social studies in AAEC programmes.

The answer to the question is not particularly easy. Arithmetic is taken for granted. English is necessary for memo writing. Both these subjects have measurable

ramifications. The soldier must know that  $2 + 2 = 4$ , and he must know how to spell "sergeant." But social studies??? What is the point of making it a requirement for certificates of education? Has a course in social studies any immediately measurable benefits to bestow on those who take an AAEC course?

The Education Officer sometimes wonders himself. He is not alone in his occasional uncertainty. American Fulbright scholar, Professor R. Freeman Butts, in his report **Assumptions Underlying Australian Education** writes:

"It is assumed that social studies as such cannot be as intellectually respectable as history and geography. Social studies as

a subject is looked upon as diffuse, vague, a hodge-podge of *nothing in particular.*"

However, the question still remains, "What are social studies?"

If the EO doesn't dodge the issue, he will probably answer that social studies includes the study of Australian history and geography, plus some elementary economics and civics. The aim of a course in social studies is to help the student to obtain a clearer grasp of his position in Australian society; to appreciate the relationships between himself and other Australians; to begin to understand the historical social, political, commercial and industrial networks which constitute the Australian nation, and also to see how these aspects of the Australian ethos are related to each other and finally to the student himself. Now this sounds rather high-falutin; and it is conceded that the subject doesn't offer immediately measurable results. However, this essay will attempt to prove that a course in Australian social studies is one of the most important courses the Australian soldier can undertake.

It is traditional Australian policy that our shores should be defended not from behind, but from some line beyond our coast. It had also been traditional to look upon Britannia as our saviour in time of trouble. We looked, and still look, upon ourselves as an integral part of Western and particularly British civilization, even though through a geographical accident we happen to be rather off-centre. Before the War, Bangkok was farther away than Liverpool. After the War, Australia began to realize that

Asians were people who must needs be looked upon as neighbours and who *could no longer be ignored.* India, Pakistan, Ceylon, Burma and Indonesia became responsible for their own affairs. Through the United Nations and the Colombo Plan we commenced to help these people to stand upright; helped them not only in the way of materials but also by admitting to them that we understood that they had the right to self-determination.

Now the Australian soldier can be sent to the forward defence line either in time of peace or in time of war. If the Digger finds himself outside Australia in peacetime, he will not be filling the role of the conquering hero; he will not be part of a force designed to quell sincere nationalistic aspirations. He will, if SEATO is to become the fully-fledged Eastern counterpart of NATO, be part of a strategic reserve stationed in one of the non-communist Eastern countries. Much of his time could be spent in fostering good relations between Australia and her newly discovered neighbours.

One of our gravest fears is that those Asian nations as yet uncommitted in this cold war of ideologies should be bullied or beguiled into accepting that way of life which we abhor. We stand full-shoulder behind the democratic way of life, and we ardently hope that the new Asian nations will be persuaded, if not to follow slavishly the pattern we have set, at least to steer clear of communism.

It is a basic psychological fact that before a person can distinguish between black and white he must first be shown black and white sep-

arately and then be shown black and white together. It may be taken for granted that the Cominform has shown our Asian friend black; it is up to us to show him what white looks like. How can this be done? Well, of course, we could print millions of books and posters; we could use all the means of mass communication at our disposal; we could (and have at last) invite Asian journalists to Australia; we could send teams of MPs to Asia. But why not let the Asians get the story straight from the horse's mouth? Let the Digger tell the story as he knows it. As he knows it? But does he? I submit he does not.

It is staggering to discover that so many men, whose claim to better than the basic wage is based on their promise to defend Australia, know so little about that for which they are prepared to forfeit their lives. Most know isolated facts. They know State capitals, Australia's important rivers, the location of the Great Dividing Range, the fact that Queensland produces sugar, that coal comes from Newcastle, that Canberra is the seat of government. But ask them about the composition and functions of that government, about the relationships between Federal and State governments, the reasons for our immigration laws, the object of tariffs, the function and aims of trade unions, and it will be found that the soldier who possesses an integrated concept of the Australian nation is the exception.

Mrs. Beeton's recipe for jugged hare begins: "First catch your hare." If the soldier is to be allowed to tell the facts of democratic life, he must first know his facts.

Let us now take the case of the soldier at war. Since the end of the last war it has been taken for granted that any future major clash will be between that form of capitalism which we enjoy and communism, or in other words, between West and East.

The beauty about communism is that the individual cogs which compose the machine do not have to be autonomous in any way. The picture is boldly cut in black and white. The line is fixed and thin, and there is little fear of a comrade deviating from it, especially if he has been conditioned from infancy.

The drawback with democracy is that it forces the democrat to think. His right to autonomy within certain sensible limits is unchallenged. The democratic picture also contains black and white, but there is a high degree of delicate shading. The line is broader and its edges are not so sharply marked off. Democracy allows the truth of history and geography to be sought. As the degree of autonomy allowed is greater, so is the responsibility of every member.

The soldier at war must be convinced that he is fighting for Right and Right must mean something to him. Future wars will be wars for the minds of men. Propaganda could well prove to be more devastating than the H Bomb. The best counter to propaganda is the possession of a sound knowledge of the institutions which make up our way of life.

Americans are usually looked upon as quite intelligent people. They have a high school-leaving age; a high percentage of them go

on to tertiary education. It is illuminating, then, to read the comments of the Defence Department's Advisory Committee on Prisoners of War (Korea), which were published in *Time* of 29th August, 1955. The committee found that of 7,190 US prisoners of war, at least 192 were found chargeable of collaborating with the enemy. It described the hardships the troops were made to endure and the progress of the docile prisoner. The committee reports: "When plunged into a Communist indoctrination mill, the average PW was under a serious handicap. Enemy political officers forced him to read Marxian literature. He was compelled to participate in debates. He had to tell what he knew about American politics and American history. And many times the Chinese and Korean instructors knew more about these subjects than he did." The report later continues: "Ignorance lay behind much of this trouble. A great many servicemen were teenagers. At home they had thought of politics as dry editorials or uninspiring speeches, dull as ditchwater. They were unprepared to give the commissars an argument. . . . The uninformed PW were up against it. They couldn't answer arguments in favour of Communism with arguments in favour of Americanism, because they knew very little about their America."

It would be interesting to compare the percentage of American soldiers who know very little about their America with the percentage of Australian soldiers who know very little about their Australia.

The obvious answer to this em-

barrassing problem is to ensure that men whose aim is to do all in their power to preserve democracy are schooled into knowing exactly what that democracy means.

The day of the mercenary soldier and of the private army has gone. Future wars will not be fought over a few acres of land between dukedoms and kingdoms. The war we dread can result only from a clash of interests of the two ideologies which history most lately has produced. We are convinced that our course is the better, but in the minds of many this conviction is based only on negative premises; in other words, many know which of the two systems is the worse. Faith in the democratic way of life is necessary, but often the existing faith is one which hasn't allowed for whys and wherefores. Surely a safer faith would be one based on knowledge and reason.

The US Defence Department's Committee on Prisoners of War, as a result of its findings, recommended that US fighting men should henceforth be grounded in the principles of US democracy before going to war. Should not Australia similarly ensure that her defenders of the Australian way of life are grounded in the principles underlying that way of life?

This, fundamentally, is the case for "Social Studies." The new edition of the AAEC text, "Australian Background," gives a complete coverage of all aspects of Australian social studies of which, it is maintained, all Australian soldiers should have a sound grasp. Soldiers who are aware of their responsibilities (and those who aren't

should be urged) should take the opportunity which is offered them—if not to enrol in an AAEC social studies course, at least to read and

inwardly digest the contents of the best and most up-to-date Australian social studies text so far produced.

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### COMPETITION FOR AUTHORS

#### Award for First Place in the November Issue

The Board of Review has awarded first place and the prize for the best original article published in the November issue to "The Effects of Atomic Weapons on Military Operations," by Lieutenant-Colonel W. F. Caplehorn.

At the time he wrote the article Lieutenant-Colonel Caplehorn was OC, Australian Army Operational Research Group. He is now on interchange duty with the Army Operational Research Group in the United Kingdom.

# SO YOU CAN'T GET ON with THE PEOPLE UNDER YOU

Major-General the Rev. C. A. Osborne

*In World War I Major-General the Rev. C. A. Osborne served as a subaltern in the British Army, and later was a lecturer in Tactics at the Royal Military College, Duntroon. Among other military appointments, he held the post of Field-Marshal Lord Wavell's Director of Operations, when Lord Wavell was Commander-in-Chief in India and Burma. General Osborne retired from the Army about eight years ago, took Holy Orders, and is now Assistant Minister at St. Mark's Church of England, Darling Point, Sydney.—Editor.*

I WAS not altogether surprised at the problem you write about in your letter. When we last met I suspected something of the kind was worrying you. I am only sorry we could not meet and talk it over now. But that isn't possible at the moment. You end your letter with these words, "... what it all boils down to is that I don't

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*Adapted from a talk given over the Australian Broadcasting Commission network.*

seem to be able to get on with the people under me. Can you make any suggestions?" Well, here are one or two thoughts from my own experience that may help you.

I think the basic difficulty in all these problems of personal relations is lack of imagination. So I suggest that you begin by trying to put yourself in the position of one of your subordinates. What would you like most to see in the make-up of the man over you?

To answer this question it is not necessary for me to go into any detail of your work—and anyway I don't know enough about it. It is sufficient to answer in principles and consider details later.

I think there are three qualities above all others that a man likes to see in his boss—efficiency, fair-mindedness and what I might call sympathy. Let's just think about these, remembering all the time that we must keep in the forefront of our minds the reaction of the subordinate—because it seems to me there is something in your habitual attitude that irritates him.

To take efficiency. I want to say

three things—the first obvious, and the others perhaps not so obvious. If there is a side of your work in which you are inefficient, then you are unlikely to get much respect from your subordinates there until you make yourself efficient. You may be able to bluff someone over you; you can't consistently bluff someone under you.

The next point is, don't butt in unnecessarily. What I'm getting at is this—when a man is promoted he takes on wider responsibility. But he usually feels a pull towards his old job, and unless he is careful he is liable to take an undue critical interest in it—and thereby irritate his successor. In wartime we were always hearing about colonels who tried to command every section in the unit. One of the things that efficiency calls for is decentralization—letting each member of the team get on with his job in his own way provided he is doing it all right. And don't think that efficiency is entirely a matter of  $\pi R^2$ . It includes efficiency in personal relations—and that is always far more difficult than any technical problem. That idea of teamwork is behind all I want to write on the other two thoughts—fairmindedness and sympathy.

You remember that old parlour game "Animal, Vegetable, or Mineral?" It could be played with people (although it wouldn't be very popular)—because in their attitude to the job all men and women come within one of these three categories. There is the animal approach: "What can I get out of it?" There is the vegetable approach: "I just do my job and I don't want to be disturbed." There is the mineral approach: "What have

I got that I can put into it?" The "Minerals" I might call them, are the most important people—the ones who are the most worth while.

All three types have one characteristic in common—they all like being appreciated—they all like feeling important in some way. As far as your problem is concerned, that means they like to feel their work is important. And that applies especially to the key-people—the "minerals." Now I've found that the only way to ensure that everyone feels his job is important is for the head always to regard the whole show as teamwork. That doesn't mean you have to pretend every individual job is of equal importance. It does mean that nobody feels left out in the cold. It means, too, that you yourself understand that your own importance is due very largely to their work. That keeps you from entertaining too high an opinion of yourself—and that is one of the things that intensely irritates subordinates.

Just watch your conversation in this respect. Keep your use of the personal pronoun down to the minimum—you know what I mean: "I think this . . ." "I do this . . ." "My Department does this . . ." It's a so much friendlier and less conceited way of talking to say "We think this," "We do this." Think how irritated you get when you hear a politician saying, "I did this . . ." "I did that." Well, the people under you have the same reaction to the same phrases.

So point number one under fairmindedness is—always let the people under you see that you regard their work as important and

give them credit for what they do. If you have a new idea you want to introduce, it often pays to suggest it indirectly, so that in the end one of them will put it forward as his own idea. No idea is absolutely original. The best ideas usually come out of chewing over other people's thoughts as well as your own. Remember the advice of the writer of the psalm: "Cast your bread on the waters . . ." I like the modern version—"There's no limit to what a man can do if he doesn't mind who gets the credit." You may think your particular line of business is too ruthless for that. But try it—and you'll be surprised.

While we're on this point, there's something else I'd like to mention. It is the subtle peril of love of power. No man is immune from that, whatever eminence he may attain. In fact, the higher a man gets the greater the danger. I know. I've worked under generals and bishops and cabinet ministers. I know you are very ambitious. There's nothing wrong in that. In fact, there's everything right in it. Without personal ambition a man achieves nothing. But keep it under control. Don't let it be obvious every time you open your mouth. And don't let it dominate your mind. That is a matter of mental discipline. Be honest in your thinking. Don't insist on your own wishes and your own point of view always having first place. If you have any say in choosing your own subordinates, don't always go for the "yes" man. I have two friends, both very important people, who could have achieved really great things in their own spheres had they only resisted the tempta-

tion that comes to all men in authority—to appoint people who always agree with them. I seem to remember Winston Churchill had something to say about that. Discipline yourself always to consider other viewpoints, and especially the viewpoint of those under you.

If I could put that another way, I would talk about loyalty. When you have people under you, remember that loyalty goes down as well as up. You can't be loyal to the best interests of your employer without being loyal to the welfare of those under you.

Now I come to the third main quality I mentioned—Sympathy. Don't get me wrong over this. When I say sympathy, I don't mean anything sloppy or weak. I mean being considerate—trying to see things from the other man's point of view. Not long ago the general manager of a fairly big industry showed me over their works. They had had a lot of industrial trouble, strikes and so on, at one time, but since he took over several years ago there had been practically no friction between management and employee. When we had been around, he remarked: "We have no production problems here; our only problems are problems of persons." I asked him how he managed to tackle those so successfully. He replied: "Well, once I got to know the men and women we employ here it wasn't too difficult." And that, of course, is the first step. Get to know the people under you. You probably think that's elementary. It is. But it's extraordinary how many men in positions of authority neglect it. They think they know them—but they don't. Even in such simple



things as knowing their names. That remarkable American philosopher, guide and friend, Dale Carnegie, says: "A man's name is to him the sweetest and most important sound in the English language." And I think he's about right. But learning names is only the beginning of getting to know people. My experience is that the more you know about a man as an individual the more you are able to adopt towards him an attitude that will encourage good work and some enthusiasm for that work. I was trained always to keep a list of people under me and a few notes about them. In every body of men there will be the good-humoured, the sulky, the hard-working, the lazy, the loyal, the grumbling, the shy—and all the other diversities of which human nature is capable. Some men like being joked with and can enjoy a joke against themselves; others are touchy and can't be joked with at all. There is the hard-working fellow who is always all out to do his best; there is the other fellow who never starts to work until he has had two or three prods to get him going. But if you prod the hard-worker it will upset him. Then there is the grumbler who is always grouching; and the opposite type who never grumbles unless there is something worth grouching about. He must be listened to when he makes a complaint. But remember—what is happening in his private life always has a big influence on the way a man sees things and behaves. I don't mean that you should pry into the private lives of people. But my experience is that it makes all the difference in the world if you can get to the stage where you

can occasionally ask a man how his children are getting on at school—or how his orchids are doing. Only last year or so I found a man I had to deal with a most difficult, scratchy person. Months later I heard that his wife had been desperately ill for a long time. Curiously enough, ever since I heard that I have found him quite helpful and easy to get on with. His wife is better—but I suspect it is my attitude that has changed.

Another very important point to watch is to praise good work. It's extraordinary how many of the people who criticise even the slightest fault, neglect to praise an improvement. And watch that you don't overlook it in the shy ones, who are inclined to draw into their shells when you appear. I don't mean you should go in for flattering people. Cheap praise merely cheapens the man who gives it. But a cheerful word of encouragement and appreciation when you see something well done heartens the people under you and stimulates good will all round. Many a successful man will tell you that his first step was when a word of praise from someone encouraged him to develop some latent gift of character or skill.

Another point I've found important in life is this. When you have occasion to reprimand an employee, always do it without hurting his pride unduly. Even if you don't think he deserves it, give him the chance of saving his face—when-ever possible have the matter out with him away from other people, and above all, never make a man feel uncomfortable in front of others who work under him. You

remember the old rule: "Never tick off an N.C.O. in front of the men." The principle applies in all walks of life.

One last word under the heading of sympathy. I'm a great believer in what I might call "off the record" talks to give people an occasional chance to ventilate any little grievance they may have—without having to go through all the business of an official complaint. Such talks are not always easy to manage—often very delicate to handle—but they can serve a very valuable purpose and prevent little

troubles from festering and growing into big issues.

I know that so far I've written as though your difficulties are all your own fault. But I realise quite well there is always something to be said on both sides. You wouldn't have got where you are if you weren't worth it. But I hope some of the points I've mentioned may help in your dealings with difficult characters under you—people who are jealous, or inexperienced, or exasperatingly inefficient—those for whom you need the extra ration of patience.

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The assumption that it could not have succeeded is based, not on the circumstances, but on the fallacy that whatever has actually happened could not have taken any other course.

—Sir David Kelly.

# THE ROLE OF COMMAND

in a

## TECHNICAL SERVICE

Major Edwin B. Owen, General Staff,  
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RECENTLY, while having lunch with a fellow-officer, I was astounded by a statement that he made during our conversation. He said, in effect:

*Why should an officer of the technical services concern himself with acquiring a background of military knowledge? We are but the civilian part of the Army and, thus, have no responsibility for command. We should leave military affairs and command functions to the combat arms.*

It would be disastrous to the mission of the technical services—and would negate successful accomplishment of its mission—to assume that we should only be responsible for the technical aspects of military operations, and that all command responsibility should be left to the other services. The reasons are ob-

vious. If we fail to prepare ourselves, as professional officers, for the function and exercise of command by the acquisition of a military background, then we shall find ourselves unprepared to carry out the missions which would logically fall within our scope of responsibility during military operations. During the intervals of peace, since war appears to be a recurring phenomenon, we are preparing ourselves for the time when an all-out military effort will be required. To fulfil our mission, we must maintain an organization capable of a well-planned and concerted effort. We, ourselves, are responsible for the creation, development, maintenance, and exploitation of this organization.

Permit me to cite the case of my own branch, the Transportation Corps. Our role is not primarily advisory, although we furnish officers to high level staff agencies to

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From Military Review, U.S.A.

advise on transportation problems requiring special consideration. An example of this might be furnishing advice concerning the exploitation or even the destruction of the transportation network of a particular country, or a programme for the production of transportation intelligence. Generally, however, we can maintain that our role is to design, construct, and exploit the organization that can produce the amount of military transportation required by a given situation. Without an established transport organization—properly conceived and executed—we would be incapable of performing our mission.

This requires commanders well versed in military affairs as well as in the more special technical activities of their branch. We have a vital role which becomes more critical as international events draw our country into conflict with other world powers. If we assume that we have only a limited responsibility and that the function of command should be left to other branches of the Army, then we should proceed to the obvious assumption that we should be divested of all military characteristics. Among these would be the military organization of the Transportation Corps, the maintenance of operational units, a corps of professional officers and men, and a developed and refined training system devoted to the creation of the necessary complement of personnel required for the accomplishment of our mission. The function of the Transportation Corps would be that of a group of technical advisors with no responsibility for, and no control over, the conduct of operations.

#### Forceful Executives

However, the trend of events prevents us from adopting such a limited role. The development of military transportation and the logistical aspects thereof has been greatly accelerated during the past century. Perhaps one of the most significant developments was the utilization, by the German General Moltke in the nineteenth century, of railroads to move his divisions from one portion of the battlefield to another. He realized that railroad transportation and the proper exploitation of this means of communications would enable him to shift his divisions at will. He could shift troops from a more or less quiet zone of the front and, within a short period of time, could hurl them against a vital point of the French defences, providing quick exploitation of any points of weakness that might develop. Moltke's operations—revolutionary as they were—have paled into insignificance beside the United States Army's achievements in the past two wars. The German general had only to concern himself with a transportation medium of comparatively low speed and limited capacity. He was only concerned with the transport of troops over short distances; and, for the most part, food and ammunition were carried in the same train as the personnel. Furthermore, he was but little concerned with the problem of control, as he simply ran a train to one point, loaded it with troops and supplies, and then sent it off to the locality designated as the area for the next operation. However, this operation paid huge dividends for the Germans, as evidenced by the

outcome of the Franco-Prussian War.

We, in the United States and other countries of the Western World, are blessed with a much more advanced and complex transport media. Highway, rail, air and sea transportation—all operating at much greater rates of speed than in 1871—give us a much greater potential than that in the hands of Moltke's staff. Moreover, the scope of present-day transport operations requires well-disciplined organizations composed of trained and efficient officer and enlisted personnel. The great variety of logistical operations involving transportation units precludes the use of so-called transportation experts attached to a command.

In modern military operations a greater need exists. Military operations call for forceful executives, well trained in the military field, who are capable of sound judgment and decisions and are equipped to carry out these decisions. It is evident that the man at the top cannot carry out alone the myriad decisions that issue forth in one form or another from his command post. To execute his decisions, he must have a well-disciplined, effective staff organization, both to interpret his line of thought and to formulate the directives that are needed to implement statements of policy. These are the means by which he is assured of control over the conduct of his mission. Each decision assigns certain functions to individuals or units; to be effective, they must be directed to assure co-ordination of effort. Only a staff of trained and experienced transportation officers

can assure that responsibility for movement of personnel and supplies is properly distributed among the various moving services.

The weight and volume of movement needs must be properly allocated and directed to ensure that movements are carried out in accordance with the established needs of the using agencies.

Each member of either higher headquarters or subordinate agency must be capable of carrying out the functions assigned to him. These functions may involve the command supervision of an activity of great magnitude such as a port complex or of a highway transport operation similar to those executed in France during the later phases of World War II or a "ship to shore" movement of supplies involving a DUKW battalion.

Such an effort requires a high degree of control and—from a military viewpoint—places great emphasis upon the operating discipline assuring this control. The command responsibility placed upon the commander of an amphibious unit is comparable to that of the commander of the assaulting forces themselves, although somewhat more restricted in scope. Upon the successful accomplishment of the mission assigned to the amphibious units depends the initial success, and ultimately, perhaps, the success of the entire operation.

### Leadership

Leadership, which is one of the most vital elements of command, is at its height in this situation. For it is true that it is at the platoon, company and battalion level that

leaders are developed and upon whom the immediate responsibility devolves. Above the battalion level, the commander has much less contact with the body of troops and the element of leadership is not as vital a factor. There are those who will argue the latter assertion, but the argument can be resolved as follows:

The commanders of units larger than battalion strength are normally surrounded by selected staffs of officers who have progressed to the stage at which they do not need the example of a figurehead from whom they must derive the courage, will or incentive to strive. Such persons are generally self-sufficient individuals, who have been selected for their high professional efficiency, knowledge and devotion to duty. They have to come to the realization that success lies in one's own proper endeavour and that co-operation and teamwork, rather than "follow the leader," are the factors which ensure the success of an operation.

The United States owes her position as a world power largely to the phenomenal development of land transportation on the North American Continent during the latter half of the nineteenth century. In turn, we owe our present degree of prosperity, in large part, to the creation of a transportation system which has been capable of distributing the fruit of our production—at low cost and high speed—to the world markets.

Our future military success will depend upon how efficiently we can distribute the personnel and supplies to our combat forces. In this

logistical effort, transportation will, of necessity, have a vital role. No weapon—no matter how effective on the proving ground—is of value until it can be delivered to the battlefield where it can be utilized against the enemy.

The Transportation Corps must provide the personnel and facilities capable of delivering this weapon along with the ammunition and spare parts to make it effective. There are many problems involved in the movement of such an article. Experienced personnel must be on hand to solve problems as they arise or, better still, to foresee and thus prevent their occurrence, with a consequent saving in time and effort. True, we have a tremendous potential of personnel qualified in the various fields of civilian transportation, whom we have used and will use again to great advantage. However, while waiting for these reserves to be absorbed into the transportation organization—after training them to most effectively participate in military activities which, perforce, vary in scope and nature from those common to civilian operations—we must have, ready for duty, a nucleus of trained personnel.

These will be the commanders of our organization around whom we shall organize our expanding operations. This hard core of trained officers and enlisted men cannot be produced overnight. They must be on hand when the situation arises, both to man the organization and to provide the cadres to train the incoming personnel. These commanders must be experienced officers who are fully cognizant of the role of military transportation,

along with its capabilities and limitations.

Thus it is evident that we cannot leave the responsibility for command to representatives from other arms and services who may, at best, have but a limited acquaintance with the technical, operational, and administrative problems arising out of transportation operations. In this connection, we are not concerned with the organic transport assigned to organizations up to and including division level. Our concern is with the units which are normally required in the support of combat organizations of corps level and higher, involving a complicated logistical operation.

Now we must provide the answer to the question of how a Transportation Corps officer should proceed to best equip himself for the responsibilities of command. To begin with, he should continually strive to increase his professional knowledge and to widen his scope of activity in the realm of transportation. By military schooling, continued study of general military and logistical operations, and selected assignments, he will acquire a firm foundation of knowledge with which to prepare himself for future positions of command in the field of military transportation.

### **Personal Responsibility**

The officer himself is responsible for his future success, and so should plan his career to assure that success will be achieved. Again he must plan his career with a view to obtaining the most benefit from his peacetime assignments. All the planning cannot be left to the Career Management people. They

cannot visualize all of the problems of a career; many problems are peculiar to the individual. A large percentage of the time, their knowledge of your capabilities and shortcomings is confined to the information on your qualification card and, consequently, they are limited as to the extent to which they can advise you. To them you may be but a name on a card followed with a numerical expression representing your Efficiency Index. It is the responsibility of the officer himself to analyze his capabilities and weaknesses and to strive to overcome the latter and exploit the former. He must endeavour to fill in the gaps in his experience so as to ready himself for successful performance of future assignments requiring a resourceful and capable commander. A career must be planned; success depends upon the effectiveness of the planning. Unless we desire to take a back seat in future operations, and are content merely to do the legwork—leaving the thinking to others—we must look for perfection today. We cannot afford to leave the functions and responsibility of command to personnel from the other arms. To do so would be to abandon one of our prerogatives.

Our role cannot be relegated to that of mere transportation consultants or advisers. More emphatically must we deny that the Transportation Corps is but a civilian component of the Army. The recent application of transportation to military needs and operations denies this beyond all doubt. We have been chosen as the leaders of

present and future transportation operations required in connection with the mission given to the Armed Forces. Consequently, we are obliged to equip ourselves to successfully shoulder the responsibilities which will arise from our participation in these operations. In

conclusion, we must consider the function of command as one of the principal duties of the Transportation Corps officer, as well as a right and a privilege, and, therefore, must dedicate our efforts toward our preparation for the performance of this duty.