UNCLASSIFIED Australian Army History Unit 012006 մակեց2014



No. 314

JULY 1975



## ARMY JOURNAL

Editor

C F Coady

Staff Artist

D E Hammond

Printed and published for the Australian Army by The Ruskin Press Pty. Ltd. and issurting Ruskin Press Pty. Ltd. and issurting through Supply Battalions on the scale of one per officer, officer of cadets, and cade through Supply Battalions on the scale of one per officer. under officer.

Contributions, which should be addressed to the Editor, Army Journal, Department Defence (Army Office), Canberra A.C.T. 2600, are invited from all ranks of the Arm Cadet Corps and Reserve of Officers.

\$10 will be paid to the author of the best article published in each issue. In addition, annuprizes of \$60 and \$20 respectively will be awarded to the authors gaining first and second places in the year.

The information given in this larger al is not to be communicated either directly or indirect to the Press or to any person not approved to receive it.

# **ARMY JOURNAL**

A periodical review of military literature

## No. 314, JULY 1975

### **Contents**

The Final Year Civil Engineering Project	
at the Royal Military College	3
T. G. Chapman	
J. Sneddon	
R. J. Bielenberg	
B. W. Golley	
Mounted Infantry and the Military Motor Cycle — 'Small Wheels in a Big Cog' Major J. R. Clarke	11
A Letter to Mr Norman	25
Book Reviews:  RUSI and Brassey's Defence Year Book 1974 and Brassey's Infantry Weapons of the World 1974/75	30
Letters to the Editor	32

No article in this Journal is to be reproduced in whole or in part without authority.

The views expressed in the articles are the authors' own and do not necessarily represent official opinion or policy.

© Commonwealth of Australia 1975



(Australian War Memorial)

## The Final Year Civil Engineering Project at the Royal Military College

T. G. Chapman

J. Sneddon

R. J. Bielenberg

B. W. Golley

Editorial Note: This article comprises a paper presented to the Institution of Engineers, Australia, Annual Engineering Conference, held at Hobart 24-28 February 1975. Reprinted with permission.

#### Introduction

ABOUT one quarter of the final year of the Civil Engineering course in the Faculty of Military Studies of the University of NSW is allocated to a project. The project involves three main phases: office investigation, site investigation and the design of a particular aspect of a hypothetical Army logistic base. In this paper, the three phases are described and the procedures that have been developed in running the project are discussed.

#### Background

In 1970 a decision was made to extend the academic content of the Engineering degree course in the Faculty of Military Studies to 4 years. For several years prior to that time, the students, who are cadets at the Royal Military College, Duntroon, were required to spend the major part of their fourth year at the college studying military topics. The problem of obtaining recognition by the Institution of Engineers, Australia for the existing and essentially 3 year academic course, as well as the considered need to produce graduates of equal

T. G. Chapman, B.Sc., Ph.D., F.I.E. Aust., Professor of Engineering, Faculty of Military Studies, University of New South Wales.

J. Sneddon, B.Sc. (Tech.), B.E., M.I.E. Aust., Lecturer in Civil Engineering, Faculty of Military Studies, University of New South Wales.

R. J. Bielenberg, B.E., M.I.E. Aust., Major, Royal Australian Engineers, Department of Defence (Army Office), Canberra.

B. W. Golley, B.E., Ph.D., M.I.E. Aust., Lecturer in Civil Engineering, Faculty of Military Studies, University of New South Wales.

standing to those graduating from other Australian universities, led to the extension of the degree to 4 academic years. From 1971 onwards, engineering students from the Royal Military College have graduated with the 4 year degree of Bachelor of Engineering.

In discussions associated with the 1970 decision, the Military Board suggested that the project might have a military orientation. The Civil Engineering Department considered that this suggestion was not inconsistent with the broad objectives of a Civil Engineering degree course, and that such a project might have considerable motivational potential for RMC students. The concept, therefore, developed of a project involving the group investigation for, and individual design of, various components for an extensive Army logistic base. Furthermore, the supporting facilities available from existing Army and Defence units made it possible to consider the inclusion of a detailed on-site investigation in the group work. Such a project, which also integrates the many theoretical aspects of the Civil Engineering course, was therefore introduced in 1971, and has been a vital component of the final year since that time. Five hours per week are formally allocated to this work throughout the academic year, and 9 or 10 working days are devoted to the site investigation.

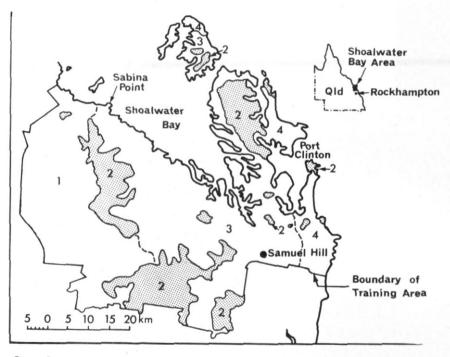
#### **Outline of Project**

In the first week, the students are presented with a 250 word statement outlining a hypothetical situation in which it has become necessary to establish a logistic base in the Army-owned Shoalwater Bay Training Area in Queensland to support a division of three task forces in the field. The base is to be supplied primarily by sea and secondarily by air, and the task forces primarily by air and secondarily by land. Construction is to be of a permanent standard and the design is to conserve the environment as much as practicable. An additional document, the User Requirement, prepared by an Army logistic group, gives details of the cargo to be handled by the port, and of the power and water requirements and the units and unit strengths to support the base. The base personnel consists of 14,600 permanent support staff with up to 6,000 troops in transit. The port is to handle 1,500 tonnes per day of incoming freight and 1,000 tonnes per day of outgoing freight by up to 3 ships of 11 metres draught. The airport is to handle up to six movements per day of fully laden Boeing 707 Series C aircraft in addition to variable traffic with smaller aircraft.

#### Shoalwater Bay Training Area

The training area is established on the central Queensland coast with its south-eastern extremity about 50 km north of Rockhampton (see Figure 1). It covers an area of 2,940 square kilometres within which a wide range of climatic conditions, rock types, land forms, soils and vegetation occur. Annual rainfall averages vary from 800 mm in the west to 1,500 mm in the south-east, and relief ranges from level coastal flats to mountains rising to 670 m above sea level. Nine groups of rock types or materials and 21 geomorphic categories have been defined,

#### LOCATION DIAGRAM AND MAJOR RELIEF FEATURES OF SHOALWATER BAY TRAINING AREA1



#### Legend:

- 1. Western lowland.
- 2. Highland belt.

- 3. Central lowland.
- 4. Dunes, beaches and estuaries.

<sup>&</sup>lt;sup>1</sup> Adapted from Reference 1.

and the soils have been arranged in 7 major groups and 31 families. The vegetation is complex and has been classified into 13 structural groups and 58 floristic communities.<sup>2</sup>

#### **Preliminary Evaluation**

General information on the Shoalwater Bay Training Area includes 1 in 50,000 topographic maps, 1 in 25,000 aerial photographs, land classification maps, admiralty charts, meteorological data and CSIRO reports describing the natural features and resources of the area.

During the first 5 weeks, lectures and seminars are presented in which the physical features of the area are discussed with respect to the User Requirement. Visiting CSIRO Scientists also present lectures on terrain evaluation, and the staff lecture on port and aerodrome requirements with reference to the Shoalwater Bay area. The students are also given a series of lectures on photogrammetry and are encouraged to use air-photo interpretation as an aid to terrain evaluation for engineering purposes. A practical test is given in photogrammetry. Formal and informal group discussions are held comparing various possible sites in the area, with reference to all the available information. Individual reports of up to 1,500 words length, plus diagrams and tables, entitled 'Selection of Areas for Site Investigation in the Shoalwater Bay Area' are then prepared by the students, the reports being required to propose one or two areas for detailed investigation. Two locations, one in the vicinity of Sabina Point and the other in the region Port Clinton to Samuel Hill, are suitable for the establishment of the base, and the students' preferences are normally divided roughly equally between the two. It has been found that an intensive investigation of one area is preferable to a less intensive investigation of the two areas, and as staff planning of the exercise must precede the submission of the first report, choice of which area to investigate must be made without student consultation. They are advised of this choice, and of the support available, immediately after submission of their first report. Students, at this stage, have given some consideration to a topic for their final design, and group discussions are then held to finalize the topics where possible, although in some cases this is not done until after the site investigation. The students form into groups of three or four for field work, and prepare a list of the technical equipment required for the

<sup>&</sup>lt;sup>2</sup> Gunn, R. H., Galloway, R. W., Walker, J., Nix, H. A., McAlpine, J. R., and Richardson, D. P., Shoalwater Bay Area, Queensland. CSIRO Division of Land Research, Technical Memorandum 72/10, 1972.

investigation and draw up a tentative work schedule based on 9 effective field days.

#### Site Investigation

Camp facilities are established by an Army advance party prior to the arrival of students and staff at the site investigation base. Group leaders are appointed from each student group on a daily rotational basis. On a particular day the leader is responsible for determining the equipment required for the day's field work, for being familiar with the operation of the equipment, for writing a short report following the day's activities and for giving an oral report at a meeting in the evening.

At this meeting, following the discussion of each group's activities, the next day's programme is decided, and a staff member is allocated to each group. He discusses with the group the equipment required and its operation if necessary. Where possible, computations and tests are carried out following the meeting.

The groups generally work in different locations, but each group works at some time in each of the major areas of interest (port site, aerodrome site, etc). On the first field day a light aircraft is available for aerial reconnaissance with up to 2 hours being available for each group. As land travel in the area is often slow owing to poor or non-existent roads in the areas of interest, this initial inspection gives all students an appreciation of the overall area, and some suggested locations of facilities may be abandoned when features not shown on existing maps (swamps, small hills, etc) are observed. A helicopter is available for two days in the second week, permitting work to be performed in areas too difficult to reach by land.

Site investigation activities have included the following:

- Control and detailed topographic survey of the proposed aerodrome site.
- Control and hydrographic survey of the proposed port site.
- Water table survey of the proposed aerodrome site.
- Field CBR tests on the proposed aerodrome site and road system.
- Locating material for pavements and concrete aggregate.
- · Reconnaissance and barometric heighting surveys of the proposed base area.

- · Stream gauging of creeks proposed for water-supply.
- Topographic and soil survey for individual projects such as bridge and dam design.
- Connection where possible of the various local control surveys to the national coordinate system.
- Soil sampling and soil profile determination in all areas of interest.
- Vegetation transects to determine ecological effects of proposed major facilities.
- Water sampling for determination of quality of proposed water-supply.

Each student is assessed daily by the supervising staff member, taking into account initiative and technical ability for the field activities and the contribution to the overall project in the evening discussion period.

The students are encouraged to reduce and tabulate or plot the results while on the exercise, but some tests (particularly some soil and water quality tests) cannot be performed in the field and two weeks are scheduled after the site investigation for conducting tests in the laboratory. Using existing information plus the data obtained in the field and laboratory, each student prepares a second report entitled 'Results of the Site Investigation and Recommendations for Layout of a Logistic Base at Shoalwater Bay'. In this report, which is limited to 2,500 words plus illustrative material, the advantages and disadvantages of the proposed base location and layout are discussed in the light of data obtained in the field. Firm recommendations as a basis for further planning and design are then advanced. Following the submission of this report, the layout of all the base facilities is established in group discussion, individual project topics are finalized and supervisors allocated.

#### **Project and Final Report**

The last 16 weeks are devoted to individual projects which generally consist of a detailed design of some aspect of the base but other topics related to the establishment of the base are also considered, eg, wave climate studies at the proposed port site and detailed rock and gravel testing for aggregate suitability. The projects have included the

design of wharves, aerodrome runways and taxi-ways, roads, dams, bridges, water reticulation systems, causeways and aircraft hangars.

A thesis, not exceeding 20,000 words, is then prepared which includes a general section on user requirements, main physical features of the area, alternative sites, site investigation and final layout, with the individual design forming the major section. It is expected that the thesis should be a critical examination of the investigation and design. Poorly substantiated aspects requiring further investigation should be identified and any further studies necessary should be detailed.

#### Assessment

The Project and Thesis forms a complete subject, and the final assessment is based on the schedule shown in Table 1.

#### TABLE 1 — ASSESSMENT DETAILS

Report 1	10
Photogrammetry	10
Field Work and Lab Work	10
Report 2	20
Thesis	50
TOTAL	100

#### Discussion

In this project, students are presented with problems for which they must find solutions from, at times, an overabundance of information and, at times, a dearth of information, as occurs in practice but rarely in undergraduate exercises. In all site investigations held to date, some time has been lost due to rain, and whereas this is an obvious disadvantage from a practical point of view, students become aware of some of the difficulties of field work, and are forced to reschedule the work programme to optimize the data obtained. A wide variety of field exercises is performed and students have the opportunity of deciding what engineering information is deficient for a particular facility, organizing the programme to obtain the data, and using the results of the field work to perform realistic designs. The various support facilities required to satisfactorily conduct a project of this nature are readily available from Army and Defence units, and it is interesting to note that following a visit by the Head of the Civil Engineering Department of the Royal Military College of Canada, a similar project was instigated there. As civilian institutions lack these extensive support facilities, the possibility of their organizing a project of this nature appears, unfortunately, to be limited.

Student attitude to the project ranges through the complete spectrum from enthusiasm to disinterest with it being fair to say there has been considerably more of the former than the latter. The level of interest, no doubt enhanced by the small student numbers (maximum of 15 per year), has been improved by having rotating group leaders, and encouraging each student to decide on an individual topic prior to the site investigation. Until the group leader concept was introduced, groups tended to be dominated by one or two students, with the result that some students were consistently relegated to the menial positions, such as staff-man, and lost interest. As group leader, a student is responsible for the technical activity and generally treats the position with enthusiasm. Establishing an individual topic leads to considerable interest in that aspect of the field work, as the student is anxious to ensure that as much relevant information as possible is obtained in the field. The system of daily assessment has also been proved valuable in ensuring that all students perform adequately at all times. It has, however, been found necessary to weight the assessments for a particular day to take into account the level of technical or organizing skill required of a student to ensure satisfactory performance of his assigned task.

#### Conclusions

The requirements of the final year project in Civil Engineering of the Faculty of Military Studies have been successfully met by basing the project on the design of an aspect of a logistic base, for which information is obtained from available data and a detailed site investigation. As distinct from most undergraduate exercises, students are presented with the problem faced by professional engineers of having a surplus of information in some cases and a deficiency in others. The general character of the early portion of the project introduces the students to a total design concept with the final portion providing an opportunity for individual and detailed design.

It is not inappropriate to urge readers of the Corps of RAE not to underrate the potential of these students. As young officers they will already have developed some skills appropriate to the work carried out by the corps. Commanding officers should exploit these skills before they are lost through non-use. \*\*



Major J. R. Clarke
Royal Australian Armoured Corps

'Any army which fails to keep in step with the trend of superiority in mobility is, far from making the necessary progress towards modernization, going steadily and irrevocably backward'.

—General Douglas MacArthur Report as Chief of Staff to the US Army — 1935.

#### Introduction

A definition of the 'military mind' appeared in an issue of the AAJ.¹ Among other things the 'military mind' was described as having 'the ability to receive new ideas, to exercise initiative and to adapt to new circumstances'. The aim of this article is to encourage the 'military mind' to consider the need for a modern military motor cycle in the Australian Army as a means of providing increased mobility for infantry.

#### The Concept

The single service function of the Australian Army is the conduct of operations on land for the defence of Australia and Australian interests. This function could involve combat on the mainland of Australia. One of the roles of the Army in discharging this function is the organization, training, equipping and maintaining of the Army for the conduct of timely and sustained combat operations on land. In order to fulfil this role, and taking into account the possibility of the

Major Clarke graduated from the Officer Cadet School in 1958 and was allotted to the Royal Australian Armoured Corps. He served in several regimental appointments before being posted to South Vietnam with the first Australian Army Training Team. Regimental and other postings were followed by attendance at the RAAF School of Languages and the Australian Staff College. Major Clarke has served as a tactics instructor at the Officer Cadet School, the Armoured Centre and the Jungle Training Centre. His present posting is Executive Officer (Military) with the Military Board Secretariat.

Army having to fight in Australia, cognizance must be taken of the vastness of Australia and the consequent requirement for infantry units to move quickly over long distances to fight in concept with more mobile arms. The infantry then have a need for a means of significantly increasing their ground mobility. The introduction of the motor cycle into infantry units as a means of providing increased ground mobility, or complementing other types of ground transport currently available may be an answer.

The idea of mounted infantry is not new. In virtually every military campaign in recorded history there have been troops who rode into battle then dismounted to fight on foot. Their mounts, whether horses, elephants, chariots, camels or whatever, gave them the means of moving rapidly to carry out their primary role — fighting on foot as infantry. In the American Civil War the majority of 'cavalry' combat actions were fought by cavalrymen dismounted and fighting on foot. The famed Australian Light Horse were mounted infantry and did most of their fighting on foot. In more recent times infantry mounted on motor cycles provided an essential and successful element of German panzer and infantry divisions operating in conditions from arctic to



'Military Review'

German tanks and motor cycle mounted infantry.

<sup>&</sup>lt;sup>1</sup> 'The Military Mind' — The Australian Army Journal — No. 89, October 1956.

desert; the Japanese used motor cycles in their invasion of Malaya and motor cycles were used in South Vietnam by the US 11 Armoured Cavalry Regiment in 1969-70.

#### Some Definitions

Today most modern armies provide their infantry with transport to increase their ground mobility, and various terms are used when referring to infantry who are not primarily pedestrian. These are my definitions of three of these terms:

- Mechanized Infantry. Infantry who have armoured vehicles (armoured personnel carriers and/or mechanized infantry combat vehicles) organic to their establishment from which they can fight, or dismount to fight on foot. These units are designed and equipped to allow them to operate as part of an all arms mobile force
- Motorized Infantry. Infantry who have motor vehicles (trucks, half-tracks) organic to their establishment, which give them increased mobility, but from which they are not normally expected to fight. They are deployed in their vehicles and employed on foot.
- Mounted Infantry. This term fell into disuse when the horse vanished from the modern battle-field. I resurrect it to mean infantry who have motor cycles organic to their establishment. They perform the tasks of infantry, but are mounted to increase their mobility.

The nomenclature applied to an infantry unit carried around by some form of motor transport is not important, but the concept of providing our infantry with increased ground mobility is. This article will examine in broad outline the concept of a military motor cycle, and its application to mounted infantry.

#### The Motor Cycle as Transport

The motor cycle, in its various forms (road, trail, trial, agricultural, competition, etc) is a fact of everyday life. Modern motor cycles combine performance with ease of maintenance and mechanical reliability undreamed of 10 years ago. The right kind of motor cycle can go anywhere a wheeled or tracked vehicle can go, and many places where previously only a man on foot could go.

The motor cycle is inexpensive in comparison with other motor vehicles, it is commercially available and readily adaptable to military use. A commercial motor cycle could be adapted for a great variety of military tasks. For example, it could mount a detachable side-car to increase carrying capacity and could carry the existing range of infantry battalion weapons, including anti-tank weapons and mortars. It could be fitted with radio to infantry section or lower level. It could be used to quickly deploy many of the new light anti-tank and anti-aircraft weapon systems currently available. The motor cycle is also cost-effective. This means it can accomplish a necessary task or role without costing an unreasonable amount. Table 1 shows a comparison between existing Australian Army vehicles, their approximate cost, troop-carrying capacity, and approximate fuel consumption under full load conditions.

TA	R		E	1
IΑ	D	ᆫ	_	

Vehicle	Cost \$ 2 (approximate)	Troop-carrying Capacity	Approximate MPG <sup>3</sup>
M113A1 (APC)	45,000	10	4-6
Truck 5 ton GS	15,600	16	5-7
Truck 2½ ton GS	10,400	16	11-13
Truck 3/4 ton GS	3,200	6	16-18
Motor cycle BSA B40	600	2	40-60

No attempt has been made to analyse the above figures and there are no doubt many factors involved which would determine their significance. One fact does, however, stand out — the motor cycle is the least expensive man-carrying vehicle in the Australian Army today. On the figures shown it is theoretically possible to provide motor cycle mobility for 150 infantrymen for the cost of one APC. For the cost of four or five APCs, theoretically a full infantry battalion could be motor cycle mounted.

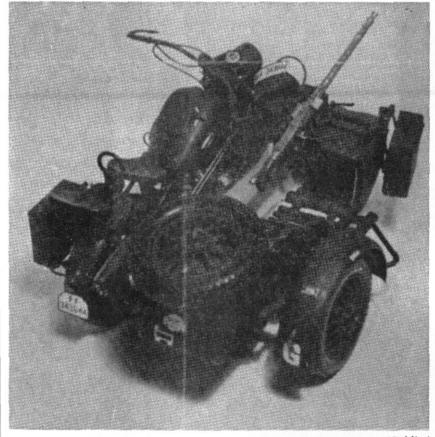
#### The Military Motor Cycle

Motor cycles were used fairly extensively by a number of armies in the Second World War. Perhaps the best known of these motor cycles was the one used by German troops which was a side-car

<sup>&</sup>lt;sup>2</sup> Central Army Supply Agency 1975 and Army Audit Price Catalogue — March 1972.

The author realizes that this should be expressed as 1/100 km; however, as this term is not yet in general use it has not been used.

combination BMW 750cc, of which about 16,500 were produced. These were an advanced motor cycle for the 1939-45 period, with a shaft instead of chain drive to both rear and side-car wheels. This combination carried a crew of two, and the side-car mounted an LMG. The BMW had a top speed of about 100 km/h and was used by German troops in virtually all theatres in which they fought. That was 30 years ago. Today the motor cycle is still with us. The Australian Army uses the BSA 350cc solo motor cycle primarily as a military police vehicle. Other nations, notably Sweden, Germany and America are currently experimenting with motor cycles for military use. For the Australian Army,



'Soldier'

German Army BMW motor cycle and sidecar outfit, Europe — 1939/45.

commercially available motor cycles could be purchased and adapted for a military role, ie, use by infantry and other combat units; however, the time must come when, if the concept proves to have merit, a motor cycle designed for military use may need to be purchased or developed from the ground up. Desirably, the military motor cycle should have the following characteristics:

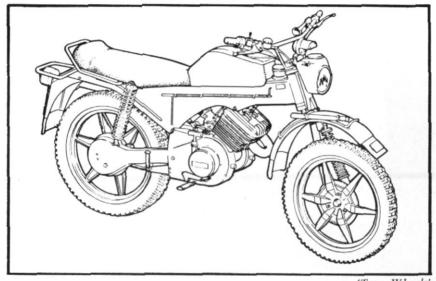
- Rugged construction, good reliability and durability.
- Long range and low fuel consumption.
- · High ground clearance and light weight.
- · Good power to weight ratio.
- · Simplicity of maintenance and repair.
- · Good cross-country performance.
- Adaptable for a range of quickly attachable/detachable accessories such as side-car, weapon mounts, flotation equipment, saddle-bags, carrying racks and radio equipment.
- · Low production cost and long service life.
- Ease of rider control and simplicity of operation.
- Self-sealing petrol tank.
- Self-sealing tyres.
- Low noise level.
- Provision for pillion passenger.
- Capable of mass production in Australia.

Apart from such purely military considerations as self-sealing fuel tanks, etc, the majority of motor cycles on the commercial market today have these characteristics. The vehicle is available — all that remains is for the Army to grasp its potentialities as operational transport and initiate purchase, trials and evaluation.

#### A Recent Evaluation

In 1972 at Fort Hood, Texas, soldiers of the Combat Support Company, Second Battalion, Seventh US Cavalry conducted a 5 day comprehensive test of motor cycles in a major exercise. The aim was to evaluate the possible uses of modern off-road motor cycles in a simulated combat environment. The trials were conducted under the auspices of the Modern Army Selected Systems Test Evaluation and Review (MASSTER) organization of the US Army.

Prior to the decision to include motor cycles in the field exercise, investigation had shown that only one study on the tactical use of motor cycles had been conducted in the US Army since 1940 — and the US Army was the only major military power which did not have a motor cycle force.



'Two Wheels'

Sweden — Haaglund's prototype military motor cycle — 1973.

The 33 motor cycles used in the exercise were ridden by the members of the Reconnaissance Platoon of the Combat Support Company who were given only 1 week of instruction on the use of the machines prior to the exercise. Within this time the platoon was instructed from the 'this-is-a-motor cycle' stage to a point where each man knew how to load, handle and maintain his cycle well enough to function effectively in a tactical sub-unit during a field exercise.

The cycles used — 185cc off-the-shelf commercial Japanese trail bikes — had all lights removed, exhausts muffled and chromed surfaces camouflaged. Each cycle was equipped to carry a 'normal' infantry-man's load of approximately 75 lbs consisting of weapon(s), ammunition, rations, clothing, bedding, shelter and radio equipment. Some cycles carried light anti-tank weapons (DRAGON).

Without going into details of the exercise, the following interesting facts emerged about the cycles as the exercise progressed:

- a. fully loaded, the small cycles could manoeuvre better and faster than any other ground vehicle in the exercise;
- b. within 6 hours of the start of the exercise the platoon had completed twice the number of tasks it would normally have performed in the same time had it been on foot;
- c. in 4 days 200 separate tasks were completed five times the number previously performed over a similar period; and
- d. cycles were successfully used at night for reconnaissance and by tank hunter/killer teams.

This exercise, although far from conclusive concerning the operational use of motor cycles, comprised the initial MASSTER trials on possible tactical use of motor cycles. The report on the trials indicated that motor cycles could be used successfully in at least a reconnaissance role in various units under certain operational conditions. Subsequent to the initial trial, the potential of the motor cycle was tested in the Ground Cavalry Troop and in airborne divisions (101st and 81st Airborne Divisions). As a result of these trials it was agreed that the motor cycle has a potential as a form of tactical transport which at the time of this writing was still undefined.<sup>4</sup>

#### Some Tactical Considerations

It is very simple to say 'let's have a motor cycle for infantry' without giving some elementary consideration as to how the motor cycle could be used. The question of the employment of mounted infantry should prove to be a controversial one, and their tactical uses, advantages and disadvantages will only be revealed by trial and evaluation; however, here are some initial thoughts:

• The Advance. The advance to contact could be speeded up and infantry when mounted could play a more significant part. The biggest bugbear — the inability of infantry to move dismounted at the same speed as wheeled or tracked vehicles — will have been overcome. Infantry units could quickly deploy once contact had been made and, particularly in open terrain, cover greatly increased frontages and provide a measure of reconnaissance/protection for themselves and other arms.

<sup>&</sup>lt;sup>4</sup> 'New Mounts for the Cavalry' — TRUE Magazine — June 1972.

Flexibility — quickly redeploying units and infantry firepower on the battle-field — would be greatly enhanced. One of the characteristics of infantry is 'mobility'.5 In an advance to contact, this characteristic, which basically means foot movement at a few miles per hour, is a significant limitation. Mounted infantry could move at almost ten times that pace over many different types of terrain, and arrive with their supporting arms in better condition to fight.

- The Attack. The concept does not visualize infantry being used mounted in the assault phase of an attack. In other phases of the attack — concentration area to assembly area, assembly area to FUP and perhaps even FUP to line of departure, the motor cycle could be used. Whichever of those points is selected, the infantry dismount and fight on foot supported by their own and other direct and indirect fire support weapons.
- The Defence. It is obvious that no infantry unit commander would want a large number of motor cycles cluttering his defensive position. They would be a distinct liability, particularly where cover, concealment, track discipline and minimum noise are paramount. As the concept envisages the motor cycle primarily as being a means of increasing infantry mobility, then there is no place for them in area defence. When the infantry are engaged in area defence, motor cycles could be held in either A or B echelon.
- The Withdrawal. In a withdrawal when not in contact with the enemy there would be few movement problems apart perhaps from traffic control. If the withdrawal is over a long distance, then the infantry withdraw on their motor cycles, and the need for a large number of 'A' and 'B' vehicles moving forward and then back is considerably reduced. In a withdrawal in which infantry are in close contact with the enemy the normal principles for such a withdrawal must be observed, but a clean break from contact may be better achieved if motor cycles are pre-positioned in company or battalion RVs.
- The Delaying Defence. As the delaying defence contains elements of all other phases of war, then comments previously made for those phases would apply.

<sup>&</sup>lt;sup>5</sup> 'Infantry Battalion - Characteristics' The Division in Battle, Pamphlet No 8, 1969.

#### Logistic Application

Although this article primarily concerns using the motor cycle for operational mobility, logistic applications, particularly within the infantry battalion, should not be overlooked. Like most other military vehicles the motor cycle could have logistic as well as tactical application. It is interesting to note that Asian communist forces used bicycles in a logistic role, and these bicycles could carry loads of up to 400 pounds, not of course while being ridden. It is conceivable that a relatively small motor cycle could carry loads of up to 200 pounds and still be ridden without its handling characteristics or its mobility being significantly reduced. There are probably many situations in which motor cycles could be used in lieu of, or to supplement the limited number of 'B' vehicles presently organic to the infantry battalion. The need for movement of four-wheel vehicles could be reduced without impairing the quantity or time of delivery of many types of stores to forward areas. The great advantage of the motor cycle is that it can get into many areas which are inaccessible to most other types of wheeled vehicles

#### Some Advantages and Disadvantages

The motor cycle, in a military role, has the following advantages:

- Mobility. It is strategically and tactically mobile. It can be air landed or air dropped. It is aircraft, truck, helicopter, APC, ship and assault boat transportable. It can be manhandled and is to a degree man portable in most types of terrain. A simple amphibious kit is feasible. It can be used for tactical and administrative movement.
- Performance/Reliability. The off-road motor cycle in standard commercial form has proven itself as an excellent cross-country vehicle with great reliability.
- Capacity. Depending on configuration, solo or with side-car attached, it can carry from one to three men. When suitably equipped it can carry food, ammunition, water, fuel and a scaling of its own spare parts.
- Versatility. The motor cycle can be used:
  - Solo as a transport or reconnaissance vehicle.
  - With side-car as a load or weapon-carrying vehicle, for laying line, transporting FO parties, engineer combat, reconnaissance or mini teams, LAA observation parties,

SAS patrols, courier duties, escort duties, CRW and internal security tasks, traffic control, mobile defence and a multitude of other tasks for infantry and other arms.

- Logistic Support Requirements. Motor cycle fuel requirements
  are comparatively light. Motor cycles use no water, are largely
  user maintainable and repairable and would require minimal
  RAEME and RAAOC support. The motor cycle is cheap to
  run and inexpensive enough to be expendable.
- Fatigue Reduction. Riding is much less tiring than walking.
   A motor cycle frees rider and passenger from carrying individual loads and allows them to wear body armour in a hostile environment without undue fatigue.
- Training Requirement. Minimal training estimated time from 1 to 3 weeks is required to teach the basic skills of riding and maintaining a motor cycle. Tactical riding/training would take longer. The introduction of the motor cycle into infantry units could inject fresh interest, scope, range and challenge into field exercises.
- Survivability. The motor cycle could be less vulnerable to
  hostile fire than infantry on foot in limited warfare in open
  terrain due to its inherent speed, manoeuvrability and crosscountry capabilities. It can be mounted and dismounted
  quickly and concealed easily. It allows wide dispersion and
  rapid concentration.
- Recreational Value. The recreational value of the motor cycle
  is obvious. It would provide interest, challenge, excitement
  and competition. Its recreational use would develop confidence
  and competence which would be directly applicable to its
  operational or other use.

There are of course disadvantages associated with the use of motor cycles on and off the battle-field. These are:

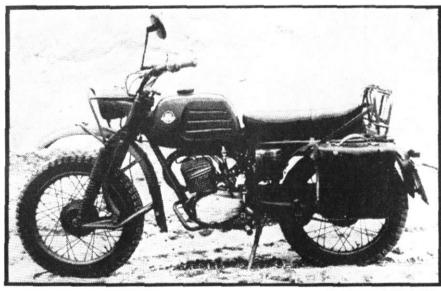
- Noise. For a military motor cycle, this would have to be significantly reduced without interfering with performance.
- Control. Tactical handling and control of a large number of motor cycles would be difficult. This could be overcome by training, experience and communications.

- Hearing. The need to wear a protective head-dress, with the
  possible addition of a radio headset, coupled with the noise of
  the motor cycle engine would be a serious limitation if motor
  cycle troops are operating in a hostile environment.
- Unsuitability for Jungle Operations. The concept does not envisage large scale motor cycle use in jungle operations, although they have been used by American troops for trail clearing/searching operations in South Vietnam.

So there are some of the advantages and disadvantages in the operational use of motor cycles. The question which must be answered is 'do the advantages outweigh the disadvantages to the point where the motor cycle could occupy an important place in the modern battle-field?'

#### Australian Trends

In 1973 the author conducted an informal discussion with infantry officers and senior NCO instructors of Battle Wing, Jungle Training Centre. Prior to this dicussion the instructors had been requested to consider objectively whether or not a light-weight military motor cycle



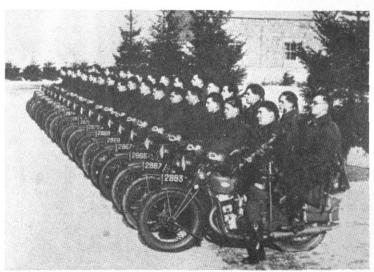
'Soldat and Technik'

Germany — Zundop military motor cycle — 1974.

had any place within the Australian infantry battalion. The main point which emerged from this discussion was the infantry opinion that there was definitely a place for motor cycles in the battalion, particularly in view of the need for greatly increased infantry mobility for operations in Australia. From this general agreement, the bulk of discussion revolved around the number of motor cycles required within the battalion and how they would be used. Here opinion was sharply divided; however, once the initial idea of motor cycles in infantry battalions had been digested and considered, there was no doubt in the minds of those who had considered the proposal that the idea was worth pursuing.

In the Australian Army there is no stated requirement for a motor cycle for tactical use in forward areas.

At present, in broad terms, the function, main features and performance requirements of motor cycles for the Australian Army appear to be to meet military police and, to a lesser extent, Royal Australian Corps of Transport requirements. Emphasis is on good highway performance — cross-country performance is not a requirement. Further, current Australian Army thinking tends to consider the motor cycle as unemployable below Task Force level and capable of performing only on highways, second class roads and fire trails.



'Armies and Weapons'
Belgium — A unit of Ardennes Chasseurs on N motor cycles — 1940.

This leads one to assume that the only tasks foreseen for motor cycles in the Australian Army are:

- a. convoy control;
- b. route reconnaissance;
- c. marshalling and dispersal of vehicle packets;
- d. escort duties; and
- e. liaison, message carrying and routine administration work.

If the proven capabilities of the modern motor cycle are considered, together with lessons learnt from trials with motor cycles in other armies, the apparent Australian Army view of motor cycle usage would appear to be disturbingly narrow and fails to acknowledge the potential of the motor cycle as an economical, versatile and reliable form of transport.

#### Conclusion

To be fully effective on the battle-field a modern army must provide a high degree of ground mobility for all arms. The Australian Army utilizes a number of vehicles for this purpose, but the motor cycle, in its highly efficient modern form appears to have been overlooked or given only cursory consideration. If our military thinking is now tending to move away from purely jungle warfare to open warfare, then the infantry must be given a vehicle to permit rapid mass movement in open terrain.

Mounted infantry and the military motor cycle may be an answer. \*\*



O N Monday, 21st December 1914, we left Broadmeadows Camp at 7 a.m. to embark. Arrived at Port Melbourne at 10 a.m. and embarked on Troopship A32, S.S. Themistocles. Left wharf at 3.30 p.m. on the same date and just before the ship steamed out, order was given all hands below deck. When we got below we discovered that friends and visitors were just being allowed to come on the wharf. The men thought the order was unjust so nearly every one rushed up on deck again to shout a last farewell to all. No one knew why this order was given. We passed through Port Phillip Heads at 6 p.m. Now we began our voyage. The daily routine consists of Reveille (bugle call to get up) at 6 a.m., physical drill from 6.30 to 7 a.m., breakfast 7.45, drill from 10 till 12, dinner 12.30, lectures 2

#### **Editorial Note**

This article is a complete reproduction of a letter from 2155 Pte E. Norman, 3rd Battalion 1st Australian Imperial Force, to his father in February 1915. The letter, which is of considerable historical interest, describes the voyage of the second convoy of the 1st Australian Imperial Force to Egypt — from a soldier's viewpoint.

Pte Norman enlisted on 28 September 1914 at Rosehill, NSW. He died on active service with 3rd Battalion at Gallipoli between 6 and 12 August 1915 (he was first reported missing). During this period, his battalion was committeed to the Battle of Lone Pine.

The original letter is reproduced with family permission.

till 4 p.m., tea 5 p.m., supper 7.30 p.m. consisting of cheese and biscuits. Wednesdays and Saturdays are half holidays. Gambling seems to be the chief recreation of the great majority of the troops. After 4 days travelling in beautiful weather and a calm sea, we arrived in the outer harbour of Albany to await the arrival of the other troopships for they had left at different periods after us. The outer harbour is very wide and is surrounded by a long range of hills. No troops were allowed ashore here. Fishing all day Boxing Day, caught plenty of whiting and had them for supper and indeed it was a change from the ordinary food. We were joined by the New Zealand transports on Tuesday, 29th December 1914. On Wednesday we were inoculated against enteric and typhoid fevers — my arm was a bit stiff and sore — some suffered terribly. On 31st December 1914, 16 troopships with the Submarine AE2 left Albany for Colombo. The Submarine was the only escort we had.

On New Year's Day first burial at sea from the Flagship Ulysses. All the ships stopped and the men stood to attention whilst the ceremony was being carried out which took about 15 minutes. We travel with lights out and are allowed to sleep on deck. Wednesday, 6th January 1915, played a cricket match against another Company and we defeated them. On Thursday, 7th, experienced tropical storm and also went into hospital with measles. On Monday was allowed out of bed and on Tuesday was given permission to come to my own deck. After going to the Doctor for two days more was discharged fit and sound again. Lost a few pounds in weight but since have regained them. The Bosum died on the Monday, I was allowed up and this was the first death on board our ship. On Tuesday, 12th January, 3 boats left direct for Aden, the Ceramic being the leading ship, and on Wednesday, the next day, we arrived at Colombo. The vessels entered the harbour in single file and anchored at buoys away from the wharves. The harbour is small and is enclosed by three entraining walls. Barges bring all goods to the ships and the work of loading and unloading is done by coolies who are very thin and scantily dressed. Inspected by the Governor in the afternoon. Although no one was allowed ashore, many reached there, but the penalty was great £2-10-0 for each day's absence. The natives came alongside and sold fruit, cigarettes, etc. Bananas (sugar) and coconuts were the most plentiful. What we did see of the town was very pretty. We were issued with a new assortment of biscuits to-day manufactured by Hardman, Sydney. The only way of breaking them was by hitting our only Jones on the head with them. The next day men were still going ashore but they were sent back at revolver point. Our ship left the harbour at dinner time in order to bury two men who had died the previous night. We steamed out a few miles, did our duty and returned and



(Australian War Memorial)

Putting men ashore at Albany W.A., from the Themistocles, December 1914

anchored outside the harbour. A launch boat of absentees arrived at about 5 p.m. A few having to be hauled up for obvious reasons. During the night search lights from the shore were played on us. I received a xmas card from the boys at work to-day at which I was highly pleased. The next morning two more boatloads of shoregoers arrived. Whilst waiting for these, niggers came alongside in canoes and dived for silver coins. The coin had no sooner hit the water before they obtained it. Ships left that afternoon heading for Aden. On January 18th another private died and also another on the 20th. On the 22nd a young fellow from our own mess table, David Kevin, who went into the hospital the day before I came out, died. He went in with the same complaint as us and made the 4th from our table. I was one of the firing party at the funeral. So many deaths in rapid

succession on our ship gave a terrible uneasiness to the troops. The result was that another Doctor was sent on board from the S.S. Broda.

On January 23rd awoke to see Aden in the distance and we arrived there at 8.30 a.m. We did not enter the port proper but in general appearance it seemed to be of the same rocky appearance as Gibraltar.



(Australian War Memorial)
Gallipoli, 1915. The headquarters of the 3 Battalion showing Col A. J. Bennett
at the rear

Natives came to sell articles the same as at Colombo, but when they started to commence trading the Officer of the Guard came running up with a handful of coal and started throwing it at the niggers, such action was hooted as no order was given against trading and all the other troopships particularly the flagship allowed the boats alongside. But in the afternoon whilst the officers were being amused by the fancy dress carnival the men managed to get a boat under the stern. Articles were very cheap, dates, biscuits and cigarettes; the latter could be bought at 100 for 1/-. The fancy dress carnival turned out a great success, but the concert in the night was the best ever held. On Sunday, 20th January, passed through Hell's Gates and was in the Red Sea. Seen plenty of porpoises. Arrived at Suez at 4.30 a.m. on Thursday,

28th January, and anchored outside the port where we remained allday. In the distance the town is a very pretty site, but on closer inspection the town did not look so well.

Next morning, January 29th, we entered the canal, at the entrance of which is the first class battleship The Ocean. The canal is between a 100 and 200 yards in width. After going some distance we passed Indian troops and all day long we found that the canal was entrenched and occupied by all classes of troops, Indians, Australians, New Zealanders and Englishmen. One sees nothing but sand on each side of the canal and at certain points one meets signal stations and sees some vegetation. At about one o'clock we came to the first lake and passed the Orsova which was fully laden with passengers for Australia who let out a great cheer. At about 4 o'clock we arrived at Ismalia where we stayed the night, left the next morning and were accompanied for some distance by two aeroplanes. We arrived at Port Said at 3 o'clock, a dirty disreputable looking place. We left again at midnight and went full speed ahead towards Alexandria and came into Port at dinner time and we disembarked next morning, February 1st, 1915, after six long weeks and entrained for Abbassia. The train journey was very monotonous. We passed through green fields and pastures new and slept that night at our new camp.

Thus ended our voyage to EGYPT. &

#### THE 2/9th BATTALION AT GIARABUB, MARCH 1941

## **BOOK REVIEWS**

RUSI and BRASSEY'S DEFENCE YEAR BOOK 1974. Edited by a Board led by Air Vice Marshal S. W. B. Menaul, CB, CBE, DFC, AFC (Brassey's, London, 1974). BRASSEY'S INFANTRY WEAPONS OF THE WORLD 1974-75. Edited by Major General J. I. H. Owen, OBE (Brassey's, London, 1975).

Reviewed by Lieutenant Colonel J. Essex-Clark Royal Australian Infantry Corps

A SOLDIER of the pre-joint service era seen furtively scanning through Brassey's Naval and Shipping Annual would have raised eyebrows and been accused of heresy. Brassey's have changed. Impelled by the demand for more defence literature it has swollen in scope and vitality. These two books show the change clearly. The Defence Year Book must be one of the more pithy and readable joint serviceman's handbooks. Infantry Weapons of the World is a well researched encyclopaedia of small arms and man-portable weapons produced for the student of this subject.

The Editorial Board from the RUSI has changed the format of the Defence Year Book: it is now in three parts. Part 1 has two hundred pages of compact and topical strategic reviews covering a range from the delicate balance between the Superpowers on land, sea, air and space, including the economic traumas and energy crises, to the hot wars in the Middle East and Asia. The dominating theme is the NATO versus Warsaw Pact disharmony of trumpeting deterrence and defence soothed by the woodwinds of detente and, because the Royal Charter of the RUSI is 'the study of British defence and overseas policy', the value of Part 1 is weakened somewhat for the antipodean reader. The balance is redressed slightly by the studies on 'China's Strategic Posture', by the Australian, W. A. C. Adie, and the chapter on 'Continuing Crises in South East Asia'. This lack of balance is well redressed by Part 2.

The joint-serviceman will find Part 2 valuable. It contains a number of interesting but brief reviews of weapons technology and covers such diverse matters as strategic and tactical nuclear missiles,

RPVs, submarine and anti-submarine warfare, field artillery, air defence, electronic warfare, sensors, helicopters, and armoured and anti-armour technology. This information would be relevant to any worth-while strategic analysis. Although there are some mistakes (for example a journey in a Chinook with one hundred soldiers aboard would be uncomfortable!) Part 2 has a wealth of information about the technology of the three services presented succinctly for the layman. The student who needs more detail can continue by using the comprehensive reading guide on recent defence literature in Part 3.

Brassey's Infantry Weapons of the World is primarily a reference book. Although each chapter is prefaced with a brief history and assessment of future development and tactics, the book will be of value mainly to those studying infantry equipment. The book is well researched and gives readable and illustrated descriptions of most infantry weapons and also covers other areas such as night vision devices, sensors, and mines. Some chapters are weak in scope, for example, flame weapons; and the 'Table of Armies and their Infantry Weapons' is incomplete, this should not have been a fault as much of the information needed to complete the table is unclassified. The arguments about range, accuracy, lethality, and weight are developed and those wishing to understand the reasoning behind the adoption of the varied small-arms calibres by different nations and nation groups should read the chapter prefaces to Rifles and Machine Guns. The explanations are clear though biased towards the British solutions.

Infantry Weapons is a new venture for Brassey's and is a workmanlike and valuable contribution on a subject about which little material is available. As Major Genral Owen has invited constructive comment on presentation, scope, and detail it should become soon the 'OED' of Infantry Weapons. All military reference libraries should hold copies, and the price may tempt specialists to buy their own.

The Defence Year Book 1974 is valuable in not only providing an assessment of an unstable world but also in providing the younger officers, both service and civilian, with an easily digested analysis of the technological activities of the three services and, therefore, a better understanding of each other.

# Letters to the Editor Dear Sir,

I read with interest Colonel Cocksedge's 13 page letter to the Editor (April 75) and I thank you for the courtesy of allowing me to reply.

Whilst Colonel Cocksedge's (from now on I will abbreviate) letter was crammed with statements, and in itself was a commendable effort, it has not rebutted my argument. For the benefit of military history students I would like to answer it, so that they may judge the respective merits of each side.

In order to do this I will reiterate my stand as to the Generalship of Field Marshal Montgomery, and then develop it by relating my argument to the verity or otherwise of certain assertions made by Cocksedge:

a. Ritchie's retreat from Gazala was an absolute disaster, in direct contrast to the masterly retreat of Rommel's Afrika Corps—burdened as they were with far greater disabilities— several months later. If the truth be known, and Auchinleck pays tribute to this in his biography (Connell Auchinleck p. 210) it was the allied air forces that saved the withdrawal after Gazala from ending in a complete rout. For instance, a determined brigade, staked out sangar wise, with supporting arms, and the air support we had, carrying out a blocking action at Hellfire Pass could have stopped the Germans, there and then, as had been done before in 1941. Instead it was left undefended and the Germans streamed through. The disorder was such that:

'Coningham (RAF Commander) had to arrange his own tactical reconnaisance in order to direct his fighter bombers and bombers. Auchinleck fully appreciated the position, but I feared it would take some time to clean out the army stable.'1

<sup>&</sup>lt;sup>1</sup> Lord Tedder, With Prejudice, (London 1966), p. 307.

Our troops were extremely lucky that the effects of the Russian campaign was beginning to weaken the Luftwaffe in the Middle East. Lord Tedder recounts further in his autobiography With Prejudice at page 307:

'On no occasion during this long retreat did the German air force scriously attack our retiring columns, although again and again there were horrifying congestions and blocks involving thousands of vehicles: "Thank God you didn't let the Huns Stuka us", said (General) Freyberg to me, "because we were an appalling target".'

It was solely through the tremendous energy of the around the clock bombing by Coningham's strike force:

From dusk till dawn the Wellingtons, assisted by Albacores, hammered away, and at seven o'clock in the morning the Bostons started an hourly service which went on through the hours of daylight. This treatment was continued the following night at the maximum intensity'.<sup>2</sup>

for the initial 36 hours after the Axis breakthrough, and the coolheadedness of General Auchinleck who now took field command, that enabled the Eighth Army to clear itself — and create some semblance of order to face Rommel at El Alamein. In direct comparison — with practically no supplies and equipment as well as being bombed relentlessly from air — the retreat of the Afrika Corps after El Alamein was masterly. On comparing the relative strengths and logistics of the remains of the Afrika Corps vis-à-vis the Eighth Army after that battle with Montgomery in command, one is left with the impression that this prolonged advance of the Eighth Army was a mock to British arms. I conjecture that such a state of affairs would never have occurred if we had had a Slim or a Wavell at the helm.

b. Montgomery never mastered the technique of Blitzkrieg, which I defined in an earlier article as follows:

'a theory of close co-operation between aircrast, artillery, insantry and armour — a highly mobile force, an all arms team under one commander — executing concentrated thrusts rather than advances on a broad front. The concept of paralysis [is] relied on as against attrition: full armoured protection [is] sacrificed for speed'.3

in the desert at El Alamein, or as a Field Marshal in Europe in 1944. Attrition became a hallmark of his battle procedure, planned or otherwise; 'Operation Market Garden', one of his few adventurous moves, was a costly failure in human life.

<sup>&</sup>lt;sup>2</sup> ibid, p. 304.

<sup>3</sup> Australian Army Journal, November 1973, 'Nature of Blitzkrieg: France 1940'. The definition, since it now refers to the past vis-à-vis the future contains the verbs 'was' as against 'is' in the last two sentences.

c. Von Thoma has stated 'In modern mobile warfare the tactics are not the main thing. The decisive factor is the organisation of one's resources, to maintain the momentum. Montgomery is the only Field Marshal in this war who won all his battles',4 and Cocksedge quotes this to substantiate his argument that Montgomery was really a good general. It is true Montgomery did not lose a battle in a purely military sense. No one would disagree with this, however it all depends on how wide a definition one gives to the word 'lose'. My argument, and those of other critics is that good or bad he could not lose in a military sense since at the time the Montgomery Legend arose there was an overwhelming logistic and supply balance in terms of men and equipment in favour of the allies - something that they had never had before. In terms of loss of men and equipment it can be argued that Montgomery did lose, and badly. For the very reason that he did not maintain momentum in the desert or elsewhere to the degree that he was able to exploit to the fullest -- and this is where we come to the heart of generalship — the weaknesses of his enemy with minimum loss to his own troops. His predictability was his own worst enemy. The following is from his desert campaigns:

'One night a truck-load of Middlesex hit an anti-tank mine; the survivors, jumping clear, found themselves in an 'S' minefield and were killed. During the night some Camerons sent out a patrol to bring in the bodies; they were fired on, took cover in a crater, and found it full of mines — six of them were killed. Once more the Camerons tried, but this time the Germans had attached 'S' mines to the bodies, and three more lives were lost. That particular spot is said to have cost 36 lives before it was cleared.'6

I would like now to traverse several points that are asserted in the text of Colonel Cocksedge.

1. Have discussed the Afrika Corps retreat, and my interpretations of its significance, above.

<sup>4</sup> Colonel Cocksedge does not give us any reference as to where this quote came from. Italics are mine.

<sup>&</sup>lt;sup>5</sup> By 'elsewhere' I refer specifically to his performance in Europe and especially to his 'no advance without security' dogma at places such as Caen which infuriated Generals Bradley and Patton. On this point Eisenhower's Bitter Woods and Bradley's A Soldier's Story and Patton's autobiography make interesting reading.

<sup>&</sup>lt;sup>6</sup> Purnell Weapons of War, p. 32. A statement made by an infantryman and was used by the above magazine to illustrate the skill and cunning of the Germans, when given time, to use booby traps in a devastating manner. Italics are mine.

- 2. It is necessary to comment on Cocksedge's 'One thing helped, the inexplicable inefficiency of the Luftwaffe' (p. 53). This quite seriously distorts the real picture, and this I have from RAF pilots who were there. As they point out:
  - a. By the time of Montgomery's advance the operational strength of the Luftwaffe was approximately 25 per cent of that of the RAF. The RAF through their most strenuous efforts had command of the air.
  - b. The Luftwaffe was having technical troubles with its latest aircraft, the FW190, and the ME 109G that were entering service at that stage.
  - c. As I made clear in my initial letter as recorded by the Italian historian Caccio-Dominioni:

'The Italian and German air forces could hardly have been expected to play any significant part in the great battle (El Alamein). They often had insufficient petrol to fly away when airfields were abandoned and many planes had to be destroyed where they stood'.7

eg, fuel supplies that had to come overland by tankers — continually harassed by the RAF — became extremely scarce.

d. The turning point for the Luftwaffe in the Middle East can be quite easily related to the high level German Marshal's conference at Sidi Barani 6 days after the fall of Tobruk in July of 1942. Rommel's reputation had never been higher. Extremely confident he believed he could be on the Nile in 10 days:

'Kesselring was less optimistic. He pointed out that to continue the advance at once — even if very little enemy resistance be encountered — would mean a great fallout in tanks and planes, both of which now required a pause for overhauling. In addition no further supplies on a big scale could be expected for some time. He was therefore in favour of a pause for consolidation. As far as his own forces were concerned, both men and machines had been stretched to the limit, and many of his planes were no longer fit for action'.8

Rommel had his way and made the fatal mistake of over extending his lines of communication. When he was held up by Auchinleck at Alamein, this latent weakness in his supply system was further

<sup>&</sup>lt;sup>7</sup> El Alamein, p. 254.

<sup>8</sup> Swastika in the Air, K. Bartz (London 1956), p. 125. This book I regard as a rather brilliant exposition of the fate and fortunes of the Luftwaffe. Unfortunately, it is hard to obtain and I suggest those interested to read works by the author, Flight Lieutenant A. Price (RAF), who has written several comprehensive works on this air force. A paperback readily available by this author entitled The Luftwaffe is published by Purnell.

compounded by two factors, namely the success of the British convoy arriving in Malta on the 13th of August:

'From this period on Malta began to recover her old importance, and Italian merchant shipping losses in the Mediterranean again rose prohibitively. Whenever Italian ships showed themselves at sea they were attacked at once and often sunk. For example...three Italian tankers with oil for Rommel were attacked in the Mediterranean and all three sent to the bottom'.

and the failure the year before of Admiral Raeder and Rommel to convince Hitler that the best way to conquer Russia was through the Middle East, not the Polish approach. Hence, when Rommel came under renewed pressure from the Eighth Army late in 1942. Kesselring's words became prophetic, supplies were not forthcoming since at the time every man Germany could muster was urgently needed in the East. The Luftwaffe, now being bled white on that front, was unable to match the tenacity and energy of the RAF in this other theatre and consequently lost the initiative in the air.

Thus, it can be argued that Cocksedge's assertion that the Luftwaffe was 'inexplicably' inefficient in the Middle East clearly misses the point, and must therefore be discounted.

- 3. It could be argued that my reference above as to the skilful way the Germans used booby traps will belay the point that Cocksedge makes on page 54 as to whether or not Rommel allowed the British to 'advance too rapidly on his tail'. The fact was that Montgomery became as predictable as a clock, and it was for this reason that Rommel was able to make good use of Montgomery's inability to closely pursue him at a cost in lives for our side. Strangely the German view quoted by Cocksedge<sup>11</sup> merely states what the critics of Rommel say, but is not allowed by Cocksedge to say whether or not he agrees with the assertion that Rommel did allow the British to get 'close'. Such a view it is submitted would be in the distinct minority.
- 4. It can be said that Clifford's assertions which are put forward by Cocksedge that the Germans in the Desert 'were temperamentally unsuited for a job which required so much individualism, such loneliness and so much thinking for oneself' is a view that would be

<sup>9</sup> ibid, p. 127.

<sup>10</sup> One of the best books on Operation Barbarossa is currently in paperback by an Alan Clarke.

<sup>11</sup> Cocksedge does not give us his name.

- shared by very few historians of note.<sup>12</sup> The secret of Rommel's success in the desert was his long-range communication vehicles—the Sd Kfz 222, etc.
- 5. With respect, paragraph H is merely stating the obvious. No one is disputing Montgomery had a hand in depleting their strength. The argument is whether this could be done more speedily and without the losses that were actually incurred by the Eighth Army in terms of men and equipment.
- 6. With respect to paragraph K, I think this goes without saying and is really splitting hairs. The Afrika Corps and Rommel were synonymous in the newspapers in those years 1941-42. The Afrika Corps was substantially his creation and moulding. It was this entity which Montgomery was told to destroy, and yet they their remnants were to fight again at Tunisia.
- 7. To suggest as Cocksedge does that I have relied mainly on Thompson and Rommel is absurd.<sup>18</sup> It has been not only analysts and historians who have criticised Montgomery. Generals of high repute both British and American, with vested interests or otherwise have questioned his credibility. The following assessment of Montgomery's Memoirs appeared in the Spectator 7 Nov 1958:

<sup>12</sup> In fact, such a quotation could be used more characteristically by German writers as to the performance of the Eighth Army. Why did not Montgomery 'Blitzkreig', Rommel, ie, encircle his tront-line troops and cut their greatly extended lines of supply? The actual tank statistics for October 1942 bear out such a query. W. J. Speilberger's Armor in the Western Desert — A German Viewpoint, (New York 1968), gives the following figures concerning the relative strengths of the opposing forces as of 23 October, 1942:

British	German
170 Grants	85 Panzer, Mk III L/42
252 Shermans	80 Panzer, Mk III L/60
216 Crusaders, Mks I and II	8 Panzer, Mk IV L/24
78 Crusaders, Mk III	30 Panzer, Mk IV L/43
194 Valentines	, , , , , , , , , , , , , , , , , , , ,

1.029 tanks

Of the German tanks, only the 30 Panzer, Mk IVs with the high-velocity 75 mm Kwk 40 L/43 gun-mounts were able to penetrate the hulls of the Shermans. Three other authors confirm the authenticity of the belief that the Germans had only 30 such Panzers. They are — Barnett, The Desert Generals, p. 258; B. Collier, A Short History of the Second World War (London 1967), and Carver, El Alamein (London 1962). The later version of the L/43 gun, the L/48, was not available to Axis forces in the Mediterranean theatre until the closing stages of the African campaign.

211 tanks

13 See the British Army Quarterly and Defence Journal, July 1974, 'Monty — a critical assessment'.

"... a bold and readable assault on the verdict of history... his book is much less a work of art than Grant's personal Memoirs, and indeed is in places scandalously incomplete."

In the same year, in answer to Montgomery's assertions that all was chaos when he took over command of the Eighth Army in August, Auchinleck saw fit to write the following letter to the Sunday Times:

'It is incorrect and absurd to say that at that time I was contemplating a withdrawal from the Alamein position. Such a plan had ceased to be seriously considered since early in July 1942, when Rommel had been forced back on the defensive and the Eighth Army had regained the power attack'.

Montgomery never answered this letter, and I advise students in this area to read *Auchinleck* esp pp. 480-510. Rommel in a letter to his wife at the time clearly substantiates the truth of Auchinleck's assertions:

'Although the British losses in this Alamein fighting (first battle prior to Montgomery's arrival) had been higher than ours, yet the price to Auchinleck had not been excessive, for the one thing that mattered to him was to halt our advance and that unfortunately he had done'.14

8. It is necessary to answer certain assertions made by Cocksedge in point three. I would like to refer specifically to the following statement made by Cocksedge:

'In the background is the fact that Rommel flattered Liddell Hart by adopting the latter's theories when the Commonwealth Armies were not very enthusiastic about them, though that ought not to have affected L-Hart's judgement'. 15

I strongly suggest to any serious student of military history to read one of the classical biographies of this period. It is Guderian's Panzer Leader. Having read it, it will become obvious to the student that Rommel was a newcomer to the Blitzkrieg concept, at the start of the Second World War and that in fact it was Guderian, not his future protege Rommel, who can rightly be called the 'father of the Panzers'. It was Guderian who read a translation of Liddell Hart's 1926 paper entitled 'A New Model Army' and realised in 1929 on having gone on tour in Sweden, that Liddell Hart's theories would work in practice. It was Guderian who put on a scaled down display of a panzer division in action, and sold the idea to Hitler. Rommel, who as an officer in the East had seen a war of mobility in the First World War (vis-à-vis the trenches) did not become fully convinced as to the effectiveness of Panzers until he accompanied Hitler as his ADC in the Polish campaigns. So impressed was he at their perform-

<sup>&</sup>lt;sup>14</sup> B. H. Liddell Hart editor Rommel Papers (London 1953), p. 260.

<sup>15</sup> Army Journal, April 1975, p. 56.

ance, that when several light divisions were now reorganised as the 7th, 8th and 9th Panzer Divisions, he begged Hitler to have command of one. He was given one, the 7th, and this division subsequently became known as Rommel's Ghost Division. Thus, Cocksedge's statement above is quite misleadiing, it was Guderian who proved that Liddell Hart's theories would work: Rommel was merely the protege who showed, unlike Montgomery, how skilfully a commander can exploit the technological advances of the age. I therefore question the assertion that Liddell Hart's judgement was in any way affected. The fact that 'Some of us were enthusiastic about his theories, but we had neither the power nor opportunity to apply them'17 could not be said of Montgomery, since the apologists from their very premise argue that he became a genius at controlling all-arms forces. Was it not he who defeated the Desert Fox?

9. Any controversial work will always, by its very nature, receive rough treatment from traditional reviewers: bias and emotional involvement through personal experiences and beliefs are quite a natural phenomena that will affect any attempt to be objective. Colonel Cocksedge's reviewer<sup>18</sup> who has not been named, states the following as is quoted in Cocksedge's letter on page 57:

'the genius of the Commander lies in seizing and maintaining the initiative. This Montgomery did throughout the battle'. Many would disagree with this, and perhaps I could best myself disengage from this 'war of words' by referring to a comment made by Major General De Guingand, a person whom Cocksedge in his 'letter to the editor' regards as one man who was capable of giving a good human picture of the man.<sup>19</sup> This statement was made when the 2nd Battle of El Alamein<sup>20</sup> was concluding, and Montgomery's divisional commanders who at least realised the need for pursuit<sup>21</sup>

<sup>16</sup> The reason for this was because during the Flanders campaign Rommel insisted on his tanks continuing their advance at night.

<sup>&</sup>lt;sup>17</sup> Army Journal, April 1975, p. 56.

<sup>18</sup> We are to presume Colonel Cocksedge has written a book but we are not told about what.

<sup>19</sup> Army Journal, April 1975, p. 64.

<sup>20</sup> The first battle of El Alamein was fought in July 1942. It was here that Rommel was successfully stopped by the Eighth Army. Its Commander at that time was General Auchinleck.

The Clausewitz theory that the greatest damage to the enemy in terms of military gain is done not during the pitched battle, but rather when psychologically the enemy believing he has lost, commences to retreat. It is at that point the enemy is most vulnerable, and if pressured, his retreat will become a rout.

pleaded with him to make a bold sweep along O'Connor's desert tracks in order to cut off Rommel's line of retreat. With overwhelming firepower, airpower supremacy and unrestricted supplies they had nothing to lose. De Guingand as Montgomery's Chief of Staff recognized this:

'In fact early in the battle I had the supplies and transport already organised for such a move... but Montgomery was determined not to risk a reverse'.22

I now leave it for the Students who having read Colonel Varma's article (June 74), my letter (August 74), Colonel Cocksedge (April 75) and this my final reply to judge for themselves whether, on the balance of probabilities Montgomery had flexibility — the ability to adapt quickly and exploit new situations as they arise — the basic quality which in the eyes of Napoleon marked the great from the mediocre general.

A characteristic as desirable today as it was then.

A. L. Graeme-Evans, ♥ Lieutenant, RCMF

## The End of an Era in Australian Army History

With the recent death of Colonel Claude Cadman Easterbrook. DSO, MBE, MC, on the 8th May 1975 another era in the history of the Australian Army comes to an end. Claude would be, I believe, the last of the pre-war 1914 members of what was known as the AIS (Australian Administration and Instructional Staff), and what became in 1921 the Australian Instructional Corps, a body of dedicated men who by their energy, efficiency and devotion to duty helped to produce most of Australia's Army leaders. At the commencement of Compulsory training in 1911, following Lord Kitchener's recommendation, schools of instruction were held to produce instructors for the Scheme. Some officers who had served with the volunteer units were accepted with commissions, eg Sir Carl Jess in 1909, General John Whitman in 1910, who commanded Southern Command in 1940, General Hardie (appointed from 6th AIR in 1909) and many others who reached the rank of Major General or Lieutenant General. The students who qualified at the schools held at Albury in 1911 and 1913 were appointed as Warrant Officers Class II (generally known as Staff Sergeants Major) and were allocated to CMF units throughout Australia. They trained the first

<sup>&</sup>lt;sup>22</sup> De Guingand, Generals at War, (London 1954), p. 70.

intake of Universal Trainees, as the CMF was generally known, and the first intake had just about completed their training when the 1914-18 war commenced.

Claude Easterbrook was an early enlistment as a Warrant Officer with the Light Horse and was later commissioned. He served with 2nd Light Horse and 7th Light Horse, was awarded the Distinguished Service Order, Military Cross and was made a member of the Order of the British Empire. He served in various staff appointments after being wounded at Shellal in April 1917, and in March 1917 was Staff Captain 2nd Light Horse Brigade. In September he became Brigade Major - a posting he held until the end of hostilities. On return to Australia, under the existing regulations, he reverted to his substantive rank of Warrant Officer, but was granted the Honorary rank of Major Quartermaster and posted as Area Officer to the CMF. He served in various appointments mostly with Light Horse Units until 1926, when he became Brigade Major (Temporary) at 1 Cavalry Division and then in 1929 was posted to 1st Division AASC. In 1930 he became AD S&T in 2nd Military District where he remained until the Royal Military College moved to Victoria Barracks when he was appointed Quartermaster at the College. He stayed at Duntroon until 1940, when he was appointed AD S&T at Army HQ where he remained until his retirement. He was promoted to the rank of Lieutenant Colonel in June 1942 and to Temporary Colonel in July 1942. On retirement he was granted the rank of Colonel.

Claude Easterbrook was a model of the best of the AIC, a most popular figure, with a keen sense of humour, and one always ready to advise younger members of the Corps. He would, I am sure, be well remembered and admired by senior Army officers who were Staff Cadets during his period as QM at Duntroon.

H. L. Harnett MBE X Lieutenant Colonel (RAA) R

## More about Guerrillas

For some time I have been wondering when the Australian Army was going to produce an historical analysis of modern guerrilla warfare. The subject is important because over the last half century or so this type of conflict has become a highly developed form of the military art and achieved some striking successes. However, like any other effort at historical analysis, if it is to be of any practical military value it must be done thoroughly and ruthlessly with due regard to the whole truth,

not just little snippets of truth culled from a multitude of sources and covering a multitude of cases.

Unfortunately the author of 'Urban Guerrillas' (AJ No. 311) seems to be unaware of this basic requirement. He skates briskly and very, very lightly over much tricky ground without ever pausing long enough to examine in depth one of the examples he touches upon in his rapid passage. And some of his authorities have let him down so badly as to cast deep shadows over all the examples given. For instance, the suggestion that Grivas' campaign in Cyprus was 'an inspirational source for the IRA' (p. 44) would be received with derisive laughter in any Dublin pub. The historical fact, as undeniable as the fact of sunshine outside my window, is that some 30 years before Grivas made the headlines the Irish Republican Army had decisively defeated the armed forces of the occupying power and established Irish liberty after 6 centuries of exploitation and oppression.

There is today a sloppy tendency to toss words about without any regard to their true meaning. Some of us apparently agree with Tweedledum, or was it Tweedledee, that a word has the meaning we choose to give it and that everybody ought to understand what we mean. Take the word 'terrorist' for instance. This word is now being used to denote individuals or small groups attempting to further their views or interests by intimidation, the intimidation usually taking the form of some violent act. This is perfectly correct, the word does mean that. But if we let ourselves drift into believing that that is its only meaning, we tend to place other kinds of terrorism in a different category of human action. Not only does this impair our capacity to think clearly, it can and has placed professional and national honour at hazard. Once you start to fiddle with words like that there is not much that you cannot persuade yourself is justified.

My dictionary gives this definition of terrorist — 'Person attempting to further his views or to rule by coercive intimidation.'

In any serious discussion of terrorism we must keep the full definition steadily in mind. Unless we do this we shall probably fail to discern the interplay between the two forms and thus fail to learn any useful lessons. Worse, we may blunt our moral judgement.

Any study of modern guerrilla warfare should start with the Irish War of Independence. This war was fought in the physical and social environment generally common to most of the developed countries

of Western society. It was a straight out conflict between guerrilla forces and conventional forces. There was no direct intervention by third parties. All that will be attempted here is a brief outline of the war with a view to demonstrating the dangers inherent in the concept of terrorism as a weapon.

On Easter Monday 1916 there began in Dublin another armed rising, another of those hopeless blows for liberty that had become so bitterly familiar to Ireland throughout the centuries of oppression. As usual the rebels took on the forces of the Crown in strictly conventional fashion. By the Thursday it was all over, just another very gallant, very romantic, but quite hopeless rising that would soon pass quietly into Ireland's sad memories.

Then General Maxwell killed his prisoners. Even if the proceedings were legally covered by some pretty sketchy courts martial, the manner in which the executions were carried out leaves little room for doubt about what Maxwell had in mind. The shootings were irregularly spread over 10 days or so. First a couple, then a break, then three more, then one, then three or four and so on, spaced out to extract the maximum effect from the tension and the agony of waiting. The whole effort was crowned by the execution of the dying James Connolly. Badly wounded, Connolly had been denied proper medical attention. His wounds became gangrenous before he was finally taken away in an ambulance, propped up in a chair and shot to death.

No doubt General Maxwell intended to 'Teach the Irish a lesson they will not forget.' They didn't.

By his act of terrorism, Maxwell accomplished in a fortnight what Irishmen had failed to achieve in 500 years. He provided the catalyst which at long last united in a single entity the numerous organizations, creeds and individuals which hitherto had never been able to act in unison. Within a year or so the Sinn Fein Party had welded them all into a resolute, disciplined organization steadily developing its infrastructure throughout the country and through all levels of society. Michael Collins, a soldier with rare strategic and tactical gifts and a talent for organization, built up and trained his underground army. This time he trained them to fight as guerrillas and he planned to fight a guerrilla war. So far as he was concerned there would be no more conventional battles in Ireland.

In the general elections held throughout the British Isles in December 1918, 73 of the 105 candidates returned for Irish constituencies were Sinn Feiners (Republicans).

With this massive vote of approval for their programme behind them, Sinn Fein set up an Irish Republican Government in open opposition to the British Government in London. The London Government moved their armed forces against the government of the Republic and its administration. The Irish Republican Army (IRA) moved to defend them by guerrilla strategy and tactics.

It was by no means a pushover for the IRA, but in the end their tactics and discipline prevailed. The forces of the Crown controlled nothing but the ground on which they stood.

The London Government reverted to terrorism by introducing into the conflict two irregular military organizations — the notorious Black and Tans and the Auxiliary Cadets. These formations promptly engaged in a campaign of murder, loot, rape and arson. If this campaign temporarily relieved the regular forces of some of the pressure, it also relieved the Republican Government of any necessity to engage in propaganda. All that their public relations people had to do was to provide facilities for British, American and European journalists. After the Black and Tans burned and looted Cork, only one daily newspaper in England still supported the British Government. In Ireland the terror was counter-productive. It brought more people into Sinn Fein and strengthened the infrastructure of the IRA.

In months of fighting the forces of the Crown killed a lot of people and burned a lot of houses but they came no nearer to defeating the IRA or curtailing the activities of the Republican Government. But they did succeed in developing a hostile public opinion in the United States, Canada, Australia and western European countries. In the end the British Government accepted defeat and Irish independence became a reality.

It was a straight victory for guerrilla strategy and tactics. Michael Collins emerges as one of the great guerrilla leaders of modern times. A solid, comprehensive study of his campaigns would be much more rewarding than all this name-dropping around the world.

Other references to the IRA are even more misleading in that they gravely distort truth and ignore history. To suggest that the aim of the IRA is the establishment by force of a Marxist or a socialist state is to

misapprehend the causes and the character of the conflict in Ulster. The aim of the IRA always has been the establishment of an independent, united Ireland, an aim fully supported by 75 to 80 per cent of the population of the whole island. But because the IRA is a political as well as a military organization — guerrilla forces nearly always are — it naturally has some political ideas. Socialism is simply a long-range political aim to be achieved by normal diplomatic processes, and has nothing whatever to do with current events in Ulster. The split between the two wings was brought about, not by any differences in political ideology, but by a difference of opinion about the conduct of military operations in Ulster.

In 1956 the IRA made an attempt to achieve unification by force. The attempt never really got off the ground, primarily because they lacked a firm base, their infrastructure was far too weak and was badly organized. IRA stocks slumped and its numbers dwindled. The gravely disadvantaged Catholic minority in Ulster began to pin their hopes for redress on political action through the Civil Rights Movement.

The growth of the Civil Rights Movement alarmed the establishment and they began their usual tactics of terrorism, unofficial but obviously connived at. Physical attacks on the minority groups increased in violence and number, and the Royal Ulster Constabulary always seemed to be looking the other way. On the night of 19 April 1969 the RUC ran amuck in a Catholic enclave in Derry. The events of that night quickly became known — there were plenty of newspaper reporters on the spot — but the authorities took no action at all. It seemed to many people, to those directly and indirectly involved and to neutral observers, that the stage was set for another series of the pogroms for which Belfast is notorious.

It was in these circumstances that the IRA again became an active military force. Units were formed and a sound infrastructure quickly developed for the purpose of defending the minority enclaves against attacks by majority groups, the RUC and the paramilitary organization known as the 'B' Specials. Thus, officially inspired, or at any rate officially condoned, terrorism produced the inevitable response. Ever since then the IRA has been heavily engaged in guerrilla action with the objects of defending the Catholic minority and bringing about a united independent Ireland. It is doubtful if they give a passing thought to socialism or Marxism. It is even more doubtful if they ever heard of Marighela. To suggest that IRA violence caused so

much 'disgust' amongst the hard-pressed Catholic minority that they began to regard the foreign army of occupation with a shade less hostility is to disregard the whole course of Trish history and to misapprehend current events in Ulster.

Ulster is but one more example of what happens when a foreign power attempts to divide a people by throwing across their country an arbitrary and artificial frontier. Such frontiers rarely endure. In the end the usual solution will take place in Ireland — the withdrawal of the foreign troops. In this case the withdrawal could possibly be followed by a period of adjustment supervised by the United Nations.

(For a definitive account of events in Ulster from 1969 to 1972 the Penguin Special *Ulster* by the London *Sunday Times* Insight Team, is recommended. A study in greater historical depth is the Pelican publication *Divided Ulster* by Liam de Paor. The quotations from General Clutterbuck do not suggest any understanding of the situation or even knowledge of events.)

The important lesson from Iteland is that terrorism was first employed by the established authority (... to rule by coercive intimidation) and that in every case all it succeeded in doing was to provoke an even more violent response. In 1916 the killing of the prisoners led immediately and directly to the development of the political and military organizations which fought the War of Independence. In 1920 the terrorist campaign of the Black and Tans failed to achieve any significant degree of intimidation but it did strengthen the IRA's infrastructure. In 1969 the unpunished rampage of the establishment's own police force led to the activation and intervention of the IRA. Any chance of compromise that still existed was ruined by the army's methods of interrogating its prisoners and by acts of religious fanaticism instigated by professional stirrers.

Actually the use of terror in this sense — ... rule by coercive intimidation — is much more common than the terror attempted by guerrilla or subversive organizations. It always has been a common method of keeping a subject people in order. It always has been a favourite method for the ruling section of a society to maintain its privileged position. When General Dyer ordered his troops to open fire at Amritsar he no doubt had in mind the old aristocratic dictum — 'A whiff of grape quickly brings the mob to its senses'. In the short term Dyer succeeded. In the long run he drove another nail into the coffin of the British Raj in India.

Historically terrorism has been employed as a weapon of repression much more than as a weapon of redress or liberation. There is in to-day's world plenty of 'rule by coercive intimidation', by no means all of it on the left of the political spectrum.

Quotations from numerous writers and brief references to conflicts going on in various places scarcely teach us much about guerrilla warfare. Before we can begin to evaluate the methods employed we need to be thoroughly briefed on the physical and social environment in which the action is taking place. We must have some idea of the social conditions the guerrillas under examination are trying to change. Before we start talking about the pronouncements and methods of any particular guerrilla leader we need to know what his war is about. Unless we do this we can easily drift into the position of supposing that all guerrillas and all subversive activists are 'baddies'. Having regard to the known facts about the masses of dreadful poverty surmounted by superstructures of privileged elites in many parts of the world, such a position is untenable. Yet we can, by over-generalisation, talk ourselves into it easily enough.

Every guerrilla movement fights for something tangible. We must see and appreciate the reality that lies behind the guerrilla movement in terms of human needs and aspirations. Preference for technical jargon instead of real understanding may well lead us to a situation where we are perturbed by the army's position on the ladder of public esteem.

E. G. Keogh, MBE, ED **X**Colonel, Royal Australian Infantry (RL)

## Lieutenant Colonel Peters comments:

My article concerned methods only, not which side is morally right in any particular situation. The above letter seeks to introduce questions of morality and justice which did not have a place in my article, by means of emotion (for example, describing the British troops of today as a 'foreign army of occupation' ignores two facts about Northern Ireland, which are unavoidable despite what one's belief may be on the justice of the situation: that it is at present a part of the United Kingdom, and that most of its people do not want union with the Republic).

My purpose was to consider in one article the effectiveness of various methods used by urban guerrilla movements; this cannot be done by consideration of one area.

I concur with the generalization that terrorism is often practised by governments (but my article concerned guerrilla and not counterguerrilla methods). If the reader believes my article does not take into account the effect upon guerrilla methods which harsher measures by counter-guerrilla forces have had, I would ask him to note my references to 'death squads' in Latin America, to the OAS and to French methods in Algiers, and to government measures in Brazil, Uruguay and Guatemala. A key point in my article was that unduly harsh reactions by the authorities can be counter-productive, in that they help in the development of an effective guerrilla movement.

I appreciate Colonel Keogh's interest in my article. 🛠

## OFFICERS' QUARTERS

The Committee on Barrack Accommodation, in its recent report to the Secretary of State for War, recommends that the commanding officer of a regiment should have barrack accommodation to the extent of two sitting-rooms, two bed-rooms, dressing-closet, kitchenstore-closet, water-closet, and two servants' rooms; the majors, paymaster, and surgeon, each one sitting-room; and the remainder the same as the commanding officer, with but one servant's room each; that three captains, adjutant, quartermaster, and two subalterns, have a sitting-room, bed-room, dressing-closet, store-closet, kitchen and water-closet each; that the quarters for the unmarried officers be classified into those for captains and those for subalterns, including amongst the latter, the assistant-surgeon, and seven captains, consist of a sitting-room, a bed-room, kitchen, and a store-closet between two; that eighteen subalterns and two assistant-surgeons, to have one room with a dressing-closet and kitchen between two, and one store-closet to every four quarters. It is also recommended that the officers' quarters should be provided with furniture as in the French service; that there should be placed in each bed-room a good bedstead, two tables, four chairs, a chest of drawers, a wash-stand with metal fittings, a hip-bath, fender and fire-irons, etc. The windows to be furnished with either shutters, curtains, or blinds, and curtain-rods, and the rooms and closets to be fitted up with convenient cupboards, pegs, and shelves.

(From Colburn's United Services Magazine, January, 1856.)