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EDITORIAL

As this edition of the *Australian Army Journal* goes to print the Australian Army continues to be engaged in intense combat against the Taliban and other anti-coalition militia in Afghanistan. The operational tempo has increased during the warmer Northern Hemisphere months as NATO forces seek to wrest the initiative from the enemy. Inevitably more intense combat operations have resulted in heavier casualties.

Losses among US and British forces have been significant. Nor has the Australian Army been exempt from this trend. In the past few weeks Australia has lost five soldiers in the Afghanistan theatre. Their deaths remind all of us of the contract of unlimited liability between the soldier and the nation, which distinguishes this profession from all others.

As a small army we are acutely aware of losses. Ever since its bloody baptism at Gallipoli and on the Western Front during the Great War, the Australian Army has placed great emphasis on force preservation and economy of effort. Our leaders at all levels strive to adapt rapidly to tactical trends to minimise our losses while not compromising the mission. As a small army we must substitute agility and adaptability for mass and firepower. The history of the Australian Army since the Second World War—which is a history of almost uninterrupted ‘small wars’—exemplifies this approach.

Imbuing the Army with such institutional agility is one of the main aims of the Adaptive Army initiative led by the Chief of the Army. Recent events in Afghanistan reinforce the urgency of continual adaptation and the relentless self-examination required to match our adaptive enemy. Moreover, we need to conduct such rigorous analysis while implementing the Strategic Reform Program (SRP), which aims to reinvest efficiency savings in the future force.

Two points need to be made about the SRP. Firstly, it is here to stay; it is not an aberration or a slogan that will fade away before we return to business as usual. The pressure on public finances right across the developed world means that the days of ad hoc topping up of budgets are over forever.

Secondly, the SRP can be a real transformation tool rather than a cost cutting measure if we embrace it. Defence and Army are indeed fortunate that savings recovered from eliminating ineffective practices will fund new capabilities. In many other Western military forces brutal cuts in manpower and capability are already being implemented. We are growing and introducing new capabilities, but we need to be agile to remain in charge of our destiny. The Chief of the Army has been leading a process of rigorous self-examination by the Army since he assumed his post in 2008. The *Australian Army Journal* aspires to support this process.

Indeed, we are examining how we do business, as is the entire Army. We have recently surveyed a sample of the Army to canvass your views of how well we serve you. The Editorial Board is determined to raise the standard of writing in the Journal and to encourage a climate of vigorous debate. Moreover, we want to exploit the advantages of technological change. Although the *Australian Army Journal* has been online for some time, our survey revealed that many soldiers were unaware of this. Please note the address for the Journal at the bottom of this editorial and on its cover.

We intend to aggressively market our online version of the *Australian Army Journal* to the Army. In the near future we intend to provide advance warning of the release of the Journal to all ranks through messages into your DRN accounts. Likewise we welcome requests for hard copies of the *AAJ* to your units and work areas if you are not gaining access to it routinely. We have established a mechanism for online feedback and we are serious in asking you to tell us how we can improve the *Australian Army Journal* to serve you.

In that spirit we have great pleasure in bringing to you an article by Ross Buckley who examines the pitfalls of poor writing. Buckley challenges us to clarify our thoughts before committing them to print. We do not write well as a profession—and in recent years this weakness has been exacerbated by the proliferation of doctrinal jargon and acronyms imported from the US Army without much discrimination. Too often authors appear to use such language as a substitute for thought. The Board is determined to improve the standard of the writing in the *Australian Army Journal* even if this means publishing fewer, better quality articles. We also intend to bring relevant articles from the journals of our allies to you to offer differing perspectives on current operations.

However, this is not intended to discourage officers and soldiers against writing. The academic staff of the Land Warfare Studies Centre and the senior members of the Board are committed to providing mentoring and support to authors who are willing to make the effort to submit articles for consideration.

The Board considers this improvement of the *Australian Army Journal* to be an essential element of supporting the Chief of Army in developing an adaptive learning culture within Army. We have some ideas, but we need yours.

This is a very challenging time for the Army. The deaths and wounding of so many of our mates in recent weeks makes that all too clear. To the families, friends and loved ones of Sapper Jacob Moerland, Sapper Darren Smith, Private Tim Aplin, Private Ben Chuck and Private Scott Palmer, we extend our sincere condolences.

The *Australian Army Journal* is online at

http://www.defence.gov.au/army/lwsc/Australian_Army_Journal.asp

CROSSFIRE

OF FUZZY WRITING AND FATALITIES

ROSS BUCKLEY

ABSTRACT

To communicate effectively, one must write clearly. To write clearly, one must think clearly. To succeed in battle, one also must communicate effectively and think clearly. So one would think Army would place a premium on clarity of expression. Yet there is abundant evidence in the pages of this Journal that the clarity of military writing is in sharp decline. Why this might be so, and what can be done about it, is the subject of this article.

I have read every issue of the *Australian Army Journal* since its reintroduction in 2003. An eccentricity for a law professor, I know, but as an academic these are to be expected.

I have learned much from its pages about tactics and strategy and potential weaponry. But perhaps the clearest lesson from the eleven volumes is that most modern soldiers cannot write clearly.

You doubt this conclusion? Well, interpret, if you can, this concluding paragraph of a recent *AAJ* article:

As the AFP seeks to enhance its interoperability with the ADF, and establish IDG as a leading international CIVPOL organisation, the commonality of training, cooperation

and operational experiences of the RACMP makes it the most suitable organisation to contribute to, and lead, ADF-AFP interoperability initiatives. Extant development of operational and tactical interoperability frameworks such as the JIPCC will enable MP to address no less than seventeen recommendations made by the eight ADF-AFP interoperability working groups. Through the implementation of extant and developmental concepts, and greater contribution to future interoperability initiatives, the MP will maintain a fundamental role in enhancing ADF-AFP interoperability on peace and stability operations.¹

This paragraph is by no means unusual. I could have chosen another ten equally impenetrable others from the *Journal's* pages. So soldiers cannot write clearly. Does this matter? The role of infantry, after all, is 'to seek out and close with the enemy, to kill or capture him, to seize and hold ground, and to repel attack, by day or night, regardless of season, weather or terrain'.²

Do infantry need to be able to write clearly to do that?

The argument of this article is that their officers certainly need to be able to do so, if the troops are to know where to go, and when, and what to do once they get there. And it is officers, in the main, who write for the *Journal*.

The answer can be found in a comparison of the paragraph I have quoted above and the one following it. The former requires a real intellectual effort to decipher. The latter, from Australian Army doctrine, leaves no room for doubt, and lifts one's spirits with its clarity and call to action.

If you received orders cast in the language of the first quote, would you know instantly what to do?

I am not arguing that the first quoted officer would write orders in this style. He has been trained in how to give orders, and I expect he applies that training to keep them simple, structured and clear.

We humans so often think in words. And if the words one thinks in are 'extant', 'commonality' and 'interoperability', and one uses the latter five times in one paragraph, I fear for the effectiveness of the Army. However, if the words our officers think in are 'to kill or capture', 'to seize and hold ground', I, for one, will sleep better at night.

To show how utterly unnecessary obtuse language is, let me take a shot at clarifying the selected paragraph. What it really says, is:

The federal police seeks to work better with the defence force, and establish its international deployment group as a leading international policing organisation. The training and experience of the military police means it is the best organisation to assist the federal police by contributing to, and leading, joint operations. Frameworks exist, and are under development, to promote cooperation between agencies. This will enable the military police to address seventeen of the recommendations made by the working

group on federal police—defence force cooperation. The military police can play a major role in assisting the defence force and federal police to work better together on peace and stability operations.

There you go. About the same number of words. No jargon, no acronyms: real communication.

Military language wasn't always obtuse. The editorial written for the *Australian Army Journal* in October–November 1949 was by a soldier:

No jargon, no
acronyms: real
communication.

Ever since the first atomic bomb exploded over Hiroshima, millions and millions of words have been ... written ... [claiming] that a war fought with these weapons will result in the sudden extinction of civilisation. The historian, of course, knows better. He knows that few civilisations and few nations have been wiped out by mechanical means. Civilisations and nations die, as a rule, from a disease of the soul, a paralysis of the spiritual force that gave them birth and sustained their growth.

Gloriously clear language, and penetratingly insightful to boot.

So what has happened to our language over the past half a century? Certainly, the use of clear, effective language is in decline. Compare, if you will, the oratory of Gough Whitlam and Kevin Rudd. Both highly intelligent men, no doubt, but Mr Whitlam expresses himself clearly and effectively, while Mr Rudd speaks like a technocrat. A comparison of the language of Prime Ministers Menzies and Howard yields precisely the same result.

Don Watson knows why. He has identified 'managerialism' and the language of bureaucracy as the culprit. Don was Paul Keating's speech writer and, more recently, the author of *Death Sentence: The Decay of Public Language* and *Watson's Dictionary of Weasel Words, Contemporary Clichés, Cant and Managerial Jargon*. There is

The language of the modern
military officer, or business
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no need for me to replough these fields here. Suffice it to say that whoever wrote the 1949 editorial was drawing upon deep wells of language, from The King James Version of the Bible to Thomas Cranmer's *Book of Common Prayer* and from Shakespeare and other classical authors. The language of the modern military officer, or business executive, is shaped by reading memos written by other military officers or executives. It has no poetry. No ear for the rhythm of words. No simplicity or clarity. And it is the poorer for it.

Recently Don Watson considered the impact of this type of language on the effectiveness of the Country Fire Authority's warnings on Black Saturday in February, 2009.³ He argued that residents whose lives were at risk failed to understand how serious the fires were because of the language used in official warnings. As Don wrote,

when it came to telling people what they had to know, the management side of their training made their best inadequate. Telling people requires language whose meaning is plain and unmistakable. Managerial language is never this, and being without roots or provenance there is no past from which to learn.

Managerial language hides and obfuscates because it is meant to. One of its attractions is its deniability. It takes courage to say clearly what one means, for if wrong, one's error is apparent to all. 'Managerialism' is the art, in part, of saying enough to allow others to work out what you mean, if they are prepared to put in the effort, while allowing you lots of wiggle room if what you have said turns out to be wrong.

I had a graphic example of this once, with a foreign student. She had submitted an essay that I thought warranted a credit, but the English was very poor. So I referred her to the university service that assisted foreign students with their written expression. The paper came back, in much clearer language, but its content was barely worth a pass. The sophistication I had seen in it before had been mine, added subconsciously in places where the meaning was unclear.

Many of us, at some level, know that saying clearly what we mean will give us no place to hide should we turn out to be wrong. So we obfuscate, use jargon and, in short, write like the first quoted author above. I don't wish to criticise that article's author; to write for one's peers, particularly when one is not senior in the military hierarchy, must be challenging. Managerial language offers some refuge from the fears involved. But a real price must be paid for the comfort brought by such a lack of clarity.

When I teach post-graduate students how to write, I do so simply. There may be something in this that Army can use.

I have three primary messages: Size Does Matter, the KISS is crucial, and active beats passive every time. One can imagine Army personnel remembering these principles.

Size matters, because short words and short sentences are best. I tell students if they have used a word and aren't sure of its meaning, don't look it up in a dictionary,

Size Does Matter, the
KISS is crucial, and
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every time.

use a simpler word. Likewise, if they are struggling to punctuate a sentence, they should break it up into two or three sentences. Any punctuation problems will be solved. Size also matters, because less is more. The best way to write a top-rate 6000 word essay is to write an 8000 word essay and cut out the unnecessary 2000 words. Twenty-five per cent of the words in most student writing add nothing. ‘In respect of’ and ‘further to the earlier analysis’ should be deleted. The writer’s best friend is a red marker pen applied ruthlessly to inessential words. What remains will be far more readable.

The KISS is crucial, for KISS stands for Keep It Simple Sweetheart (or Stupid, depending on whom one is addressing). Simple words and simple sentences lie at the heart of clear communication. Consider these sentences from Donald Horne’s last book, *Dying: A Memoir*, about a graduation address he had delivered:

I think it goes down well. The microphone works. My breathing, sustained by the oxygen, is not laboured. The applause is long and seems appreciative.⁴

This comes from the author of ‘Australia is a lucky country, run mainly by second-rate people who share its luck.’ Simple words, simple sentences. One doubts ‘Australia is fortunate in its natural resources and geography although its people lack a number of desirable attributes’ would have entered the national lexicon.

Active refers to voice. ‘The platoon took the hill at 6.45 am’ is preferable to ‘The hill was taken at 6.45 am by the platoon.’ Passive voice is dull. It fails to carry the reader along with the message. Avoid it.

So these are my tips to students. Keep it short. Keep it simple. Keep the voice active.

These are attributes of writing. But of course writing and thinking inform each other. Clear thinking needs to precede clear writing. I’ve often said to a student, ‘You’ve worked out what you want to say by writing this paper, now you need to start again. This is a jumble. Toss it away, and write afresh, with your message clear in your head.’ (Students rarely do; one hopes that compliance in the military is more common.)

The flip side is that obtuse writing can, in turn, cloud thinking. Perhaps no environment places a higher premium on clarity of thinking than a battlefield. The fog and chaos of war is no place for anyone who doesn’t think and communicate in sharp, straight lines and clear, simple concepts. Writing in this way can only promote thinking in this way. Army clearly needs to train officers to write more clearly and simply. One day our national security may depend upon it.

ENDNOTES

- 1 Captain Damian Eaton, 'The Role of the Military Police in Enhancing ADF-AFP Interoperability on Peace and Stability Operations', *Australian Army Journal*, Vol. VI, No. 1, p. 71.
- 2 The Australian Army defines its role as such; see <<http://www.defencejobs.gov.au/army/jobs/infantryofficer/>>.
- 3 Don Watson, 'Language like this should be put to the torch', *Sydney Morning Herald*, 19 September 2009, p. 7.
- 4 Donald Horne and Myfanwy Horne, *Dying a Memoir*, Viking, Camberwell, p. 44.

THE AUTHOR

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CONCEPTS

CONTEMPORARY WARFARE, THE UTILITY OF INFANTRY, AND IMPLICATIONS FOR THE PROJECT LAND 400 COMBINED ARMS FIGHTING SYSTEM

LIEUTENANT COLONEL CHRIS SMITH, LIEUTENANT COLONEL TONY DUUS
AND LIEUTENANT COLONEL SIMEON WARD

ABSTRACT

This article examines the role of infantry in contemporary warfare, and finds that a highly trained infantry capability is essential for contemporary warfare. Infantry must operate in concert with other arms and services, but at times will be required to operate independently from vehicles. Therefore, the article proposes a balanced force model for the Army based on a single type of infantry battalion and a single type of cavalry regiment, or divided between more specialised reconnaissance cavalry and armoured personnel carrier regiments, with all forces designed to operate in combination with each other as well as independently.

INTRODUCTION

Project Land 400 Combined Arms Fighting System (Land 400 CAFS) is potentially the most significant change to the equipment and tactics of the combined arms team for the next twenty years. Consequently, this article asks two important questions: what are the characteristics that only the infantry capability can bring to a combined arms team in contemporary warfare; and what are the implications of these characteristics for Land 400 CAFS? This article offers a unique perspective on the Land 400 CAFS problem and seeks to enhance the intellectual discourse on one of the Army's greatest capability investments.

This article contends that the implications of the role of infantry in contemporary warfare, based upon Army's operational experiences since 1990, are that a highly trained infantry capability is essential for contemporary warfare. Infantry, however, must operate in concert with other arms and services but at times will be required to operate independently from vehicles. Therefore, the time and resources invested in the infantry capability that are not directly related to the infantry's primary role diminish the characteristic that makes the infantry a key component of combined arms teams.

The article analyses each of the key terms contained within the extant role of the infantry and tests their meaning and relevance in the context of the contemporary operating environment defined by the Army's Future Land Operating Concept – *Adaptive Campaigning*. This analysis of the role of the infantry in contemporary warfare is intended to distil the unique qualities, characteristics and functions the infantry provides to combined arms teams. The current armoured and infantry force types will then be examined to determine if the current structures are optimal in light of the review of infantry's role in contemporary warfare. This article will then suggest a possible force structure solution drawing on Army's recent operational experiences.

Infantry is capable of seeking out an enemy operating in complex physical terrain...

THE ROLE OF THE INFANTRY IN CONTEMPORARY WARFARE

TO SEEK OUT THE ENEMY

Infantry is capable of seeking out an enemy operating in complex physical terrain¹ and discriminating between the enemy and non-combatants in circumstances and in ways that other capability cannot. It is possible to discover an enemy by a wide and diverse range of technical and specialist reconnaissance, surveillance and intelligence means in a range of environmental conditions. However, the preference of many potential enemies to retreat into complex terrain limits the utility of many of these

means. The number of possible targets is likely to be too many, and the targets too dispersed, for scarce technical and specialist detection means to address. Moreover, the retreat into complex terrain is a deliberate choice by potential enemies to operate where many advanced reconnaissance, surveillance, and intelligence means cannot penetrate or where these means lack the fidelity to discriminate between an enemy and a non-combatant. Therefore, detection and identification of enemies is often only possible at close quarters by human beings. The ability to get close enough to an enemy often requires movement through spaces that vehicles (both ground and aerial) cannot move through or into, and technical means cannot penetrate (buildings, bunker systems, caves and jungle canopies for example). Therefore, infantry should be able to persist within and move through complex physical terrain on foot, and discover enemies and defeat them at close quarters in meeting engagements as part of a combined arms team.

The outcome of ... battles [in the early stages of the Afghanistan war] depended on factors beyond the influence of sensors and precision munitions. Geography was a critical factor in that the complexity of the terrain as well as the intermingling of Al Qaeda forces with civilians foiled attempts to kill or capture the enemy. Surveillance of the difficult terrain at Tora Bora, for example, could not compensate for the lack of ground forces to cover exfiltration routes. After a sixteen-day battle, many Al Qaeda forces, probably including Osama bin Laden, escaped across the Pakistan border.

As the fight developed over the next ten days, it became apparent that over half of the enemy positions and at least three hundred fifty Al Qaeda fighters had gone undetected. The enemy's reaction to the attack was also unexpected. American commanders had expected al Qaeda forces to withdraw upon contact with the superior allied force rather than defend as they did from fortified positions.²

An enemy's rationale for operating within complex terrain often relates to the ease with which they can disguise their identity by operating amongst a civilian population. Therefore, it is often difficult to discern an enemy from a non-combatant unless they reveal themselves in the prosecution of an attack, someone gives away their identity, or physical control measures (biometric scans or identity checks) compromise their anonymity. In these

circumstances, discriminating enemies from non-combatants will tend to necessitate a continuous physical presence among a population. Continuous and sufficiently pervasive physical presence among a population allows a force to recognise an

An enemy's rationale for operating within complex terrain often relates to the ease with which they can disguise their identity...

adversary against the background of normal patterns of life. It also provides protection and other inducements to vulnerable populations such that members of those populations are willing to collaborate and inform on enemies. The degrees of persistence, pervasiveness and proximity necessary to reveal the identities of enemies operating amongst the population and to protect the population from enemy coercion are only achievable by a relatively large number of appropriately trained soldiers operating on foot. These soldiers should be capable of interacting with, and operate continuously amongst the population. While non-infantry troops are capable of this function, they generally require additional training to be proficient. Moreover, the conduct of continuous security operations among the population comes at the expense of their ability to fulfil their core function. Each tactical component of infantry should be capable of protecting, controlling, interacting with, and operating continuously among vulnerable populations.

The instruments of Milosevic's ethnic cleansing campaign, small mobile groups of paramilitary and police, were intermingled with the innocent civilian objects of their terror and were, therefore, unidentifiable and immune to NATO air power. Intelligence analysts often had clear pictures of Albanian refugees cowering in the hills, but could not locate the Serbs who were terrorizing them. Aircraft looked for targets in vain, sometimes refuelling four times without dropping a bomb. Because aircraft could not land with bombs, millions of dollars of ordinance landed in the Adriatic Ocean or on the vacant countryside. Serbian Army tanks and other vehicles dispersed and hid. Even when Serbian tanks and artillery pieces were located, bombing might have provided an emotional catharsis, but the activity was irrelevant to stopping the Serbian ethnic cleansing campaign.³

...the vulnerability of
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manoeuvre is difficult.

TO CLOSE WITH THE ENEMY

Closing implies movement to within close range of an enemy and the possible application of force or the threat of force at close range. Combined arms teams will exploit the protection afforded by mobility platforms, automation, and precision offensive support where appropriate to close with an enemy. However, the vulnerability of vehicles increases in close physical terrain where manoeuvre is difficult. Enemies may also operate in environments that vehicles cannot navigate, potentially denying the opportunity to use land vehicles. Enemies operating in close proximity to non-combatants tend to limit the utility of indirect and aerial delivered offensive support, which are often not sufficiently precise to prevent the death of non-combatants or prevent the unnecessary destruction of property. Air power is of itself generally a transitory

battlefield effect and many contemporary warfighting capabilities are unreliable in certain climatic conditions. Furthermore, movement on foot is often much easier to conceal than movement by vehicles. Therefore, while it is often possible to close with an enemy from the relative protection of a vehicle (manned, unmanned, aerial or ground based), there are likely to be many occasions that it is advantageous or necessary to close with an enemy on foot. Infantry should be able to move to a point of decision⁴ through the most difficult terrain on foot (particularly enclosed spaces) independent of platform based support (air and/or ground), and may be reliant only upon direct fire weapon systems that are man-portable (including less than lethal weapons).

The fight for possession of the long boot of Italy was ... a struggle in which a force composed largely of North African and French mountain troops ... using only a few vehicles and pack animals, actually moved faster in difficult terrain than vehicle-clogged British divisions closer to the coast. Contrary to common expectation, modern equipment had not necessarily made an army more mobile. Road and weather conditions underscored the difference between physical and tactical mobility. In Italy, the unceasing winter rains turned the countryside ... into a quagmire that restricted even tracked vehicles to the roads. Most offensive action, therefore, had to be effected by infantry, sappers, and artillery, not always in sufficient numerical superiority.⁵

In some circumstances, it is necessary to modify terrain in order to gain a positional advantage over an enemy or to protect troops from the effects of enemy fire. These modifications might include the use of explosive demolitions and hand tools to create alternate avenues of approach (punching holes in walls and bunkers for example), hand tools to improve protection from fire (constructing field defences for example), and climbing tools to move vertically (ladders and ropes for scaling walls and cliffs, and entering tunnels). While all these skills reside with the engineers and other specialist capabilities, it is unlikely that there will be an appropriately skilled engineer within every infantry small team manoeuvring through complex terrain. Therefore, it is unlikely that the expertise will be available when and where it is needed, particularly during meeting engagements in built up areas. Every infantry grouping should be skilled in the use of some tools and explosives in order to modify terrain in close combat.

Every infantry grouping should be skilled in the use of some tools and explosives in order to modify terrain in close combat.

Choosing to defend only the north part of the town but leaving the southern half a nightmare of trapped and mined houses, the Germans made its defence into a miniature Stalingrad of interconnected and heavily mined strongpoints. Here the Panzerfaust, an

expendable infantry antitank weapon, made its appearance. Here, also, the Canadians adopted the German technique of “mouseholing,” using demolition charges to blow holes in walls so that troops could clear rows of houses without having to appear in the fire-swept streets. However, as the Germans often attempted to recapture houses by infiltrating through “mouseholes” of their own, captured buildings consequently had to be occupied in strength. Such practices naturally resulted in extremely close quarter combat ...⁶

TO KILL AND CAPTURE THE ENEMY

Killing and destroying an enemy is possible by any number of different means. However, an enemy’s use of physical terrain and civil populations (as described in *Adaptive Campaigning*) often functionally and physically dislocates the means to kill the enemy remotely or at long ranges. While aerial and ground vehicles allow for the application of the greatest firepower at the longest ranges, the infantry soldier is capable of engagements at close range in terrain that vehicles and platforms cannot penetrate or in which they lack the fidelity to discriminate between an enemy and non-combatant. This does not preclude infantry from applying remotely delivered munitions. Indeed, infantry must be able to communicate to orchestrate the application of other vehicle based direct fires and offensive support. However, infantry is distinguishable from other means of killing the enemy by its ability to close with and kill at *close quarters* with precision, proportionality and discrimination. Therefore, every infantry tactical grouping should be capable of accurate, proportional, and discriminating application of integral and remotely applied lethal (and non-lethal) force at close quarters.

In the tactical arena, Hezbollah proved a worthy adversary for the IDF ground forces. Its use of swarming ATGMs and RPGs against Israeli tanks was both shrewd and inventive. Of the 114 IDF personnel killed during the war, 30 were tank crewmen. Out of the 400 tanks involved in the fighting in southern Lebanon, 48 were hit, 40 were damaged, and 20 penetrated ... Clearly, Hezbollah ... mastered the art of light infantry/ATGM tactics against heavy mechanised forces.⁷

Infantry can capture enemies in places and in ways that other capabilities cannot. To capture is to take by force or threat of force, which implies closing to within intimate range of an individual or group of enemy, taking them into custody, and holding them against their will. Only a dismounted soldier can detain another by force against his will (as opposed to surrendering enemy, who have given up the will to fight). While any soldier can capture another, it requires a particularly high level of perishable field craft to deliberately close with an adversary and take them as a prisoner from within a defended or secured location. Therefore, the almost ubiquitous requirement for combined arms teams to be able to capture enemies means that every tactical infantry grouping should be capable of infiltrating into

defended and secured locations, and taking individuals or groups of enemy into custody against their will.

Close combat costs lives. Close combat is inherently violent and by its very nature always involves significant danger. When appropriate, commanders will typically make every effort to employ a suitable combination of means to effect close combat that minimises the risk to lives. However, a decision to enter into complex terrain to close with and kill an enemy accepts the potential for a violent decision involving significant danger at close quarters. Success in close combat in all seasons, weather and terrain, demands high levels of perishable proficiency in close quarter battle, including ‘hand to hand’ combat, marksmanship, field craft, self-discipline, small group cohesion, courage, mental toughness, physical power and endurance. These characteristics are the basis for an effective infantry.

Only a dismounted soldier can detain another by force against his will...

TO SEIZE AND HOLD GROUND

Infantry can seize and hold certain terrain types and some infrastructure that other capabilities cannot. To seize is to clear a designated area and gain control of it. To hold is to maintain possession of a position or area by force. Combined arms team missions might require the seizing and holding of ground for a number of reasons. A combined arms team might need to seize a village controlled by an insurgent and hold it in order to protect the community from insurgent coercion and implement a range of initiatives to generate community collaboration. A combined arms team might need to seize and hold ground that has a decisive influence over other terrain and events, or provides an adversary a marked advantage. A combined arms team might need to seize and hold a critical piece of infrastructure that provides life-sustaining support to several communities. It is possible to fulfil these functions from platforms or with other means in some instances. However, some terrain will not be navigable by vehicles; the enemy will attempt to fortify their physical positions to reduce the effectiveness of ground based and aerial platforms (including the effects they are designed to generate); and the efficacy of seizing and holding terrain from aerial platforms is doubtful. Therefore, many circumstances will necessitate a persistent physical presence by a sufficient quantity of appropriately trained and equipped infantry soldiers.

Even when enemy concentrations were identified, complex terrain and the cover of fortified positions frustrated attempts to predict the effects of bombing and made ground attack the only option to defeat the enemy. At Keshendeh-ye Pa'in, for example, two days of bombing was not enough to prevent the enemy from halting a ground advance. At the Qala-i-Gangi fortress, despite air attacks involving multiple AC-130 ammunition loads

and seventy-two thousand-pound GPS-guided bombs, the defenders survived and resisted. From an American perspective, continued resistance was surprising. It took fighting the enemy in the close fight to determine his skill as well as determination to continue resisting.⁸

The term ‘hold’ is also suitable when used in relation to population protection.⁹ It is an accepted part of the contemporary lexicon¹⁰ and describes the function of maintaining physical control of a population to deny enemy influence over that population and to allow for the subsequent application of other means to generate community collaboration.

To this end, the term ‘ground’ in the function ‘seize and hold ground’ is inclusive of ground, infrastructure and population groups. The efficacy of applying a range of measures that protect the population from enemy influence, influence the population according to our narrative, and provide a range of life-sustaining and other support from behind armour, from the air, or through automated and robotic technologies is doubtful and unproven. Consequently, a continuous and pervasive combined arms presence taking advantage of all the elements of the arms is necessary to protect populations from enemy coercion.

Whatever government is in power and whatever your political leanings, unless you are confident in the ability of your government to enforce its peace then the man with a gun at your door at midnight is your master.¹¹

Infantry can control and protect populations to an extent that other capabilities cannot. ‘Holding’ communities for only a finite time and leaving them vulnerable to the coercive influences of enemies by returning forces to operating bases or other safe harbours (for any length of time) undermines any attempt to protect and support populations. Controlling the movement of peoples, enforcing curfews, diffusing and controlling crowds, and influencing and protecting populations from enemy influences are largely functions of maintaining a continuous presence with a sufficient quantity of soldiers in close proximity to the population. While other means are available to achieve these functions, only infantry is likely to be

...a continuous and pervasive combined arms presence taking advantage of all the elements of the arms is necessary to protect populations from enemy coercion.

Defeating attacks with a single arm is possible—but exposes the weakness of that single arm.

appropriately trained to maintain the necessary level of continuous presence with a sufficient troop density relative to the population. Therefore, infantry should be capable of continuous and pervasive operations among vulnerable populations.

TO REPEL ATTACK

Repelling attacks is implicit in the function 'hold'. It implies arraying a force to defend or secure something. An enemy must use force to wrest control of an area, piece of infrastructure, or community from a holding force, which implies attacking. Therefore, the imperative to repel attack nests within the function 'hold'. Repelling attacks also encompasses other acts to protect, defend, and secure. Counter ambush, for example, is nothing more than a mobile force's attempt to repel a surprise attack by an enemy laying in wait. Defeating attacks with a single arm is possible—but exposes the weakness of that single arm. Combining arms into the combined arms team maximises the strengths and protects the weaknesses of the individual arms. Therefore, infantry should be capable of repelling attacks in concert with other arms.

ACHIEVING AND MAINTAINING A HIGH LEVEL OF INFANTRY CAPABILITY

An infantry corps capable of fulfilling its role in contemporary warfare demands sophisticated and diverse training. Maintaining a high level of individual skills and characteristics—such as marksmanship, physical power and endurance, communications, reconnaissance techniques, patrolling techniques, movement through complex terrain, close quarter battle skills, combat first aid, field craft, population control techniques, cultural competence, and explosive entry among others—require time and resources. The achievement and maintenance of an adequate level of collective capability requires an even greater investment in resources and time.

The notion that competence in the techniques of the infantry is a baseline for all soldiers is a fallacy. The notion is perpetuated by those that mistake the combat skills and techniques of the soldier (effective use of one's personnel weapon, the techniques of patrolling, defence and attack) with the skills and techniques of the infantry. This flawed assumption tends to undervalue the infantry and leads to a harmful underestimation of the time and resources required to train individual infantrymen and infantry teams. Consequently, time spent by infantry doing things not directly related to achieving or maintaining collective infantry capability in the role described diminishes the quality of the infantry and therefore

Infantry is also a source of personnel support to communities before, during and after major crises, such as natural disasters.

diminishes the capability of combined arms teams. Likewise, time spent by other corps trying to achieve proficiency in infantry skills and techniques is wasteful.

VERSATILITY AND INFANTRY'S ABILITY TO FUNCTION BEYOND ITS ROLE

The above notwithstanding, the infantry is capable of fulfilling functions outside its defined role because of its ability to provide relatively large numbers of trained personnel with a functioning command structure. Its potential to provide continuous proximity to communities enables infantry to glean important information, such as the identities of influential community members and poorly functioning infrastructure, which might generate opportunities for actions by other elements of the force, both military and non-military. Individual infantrymen are a useful means of transmitting messages to groups and influential people because of their continuous proximity to communities. Infantry is also a source of personnel support to communities before, during and after major crises, such as natural disasters. Infantrymen are an obvious pool of appropriately trained soldiers for securing and enabling the evacuation of foreign nationals from strife-ridden countries. In certain circumstances infantrymen have trained to do some specific tasks normally undertaken by police; for example, riot control. Nonetheless, while the infantry is capable of fulfilling these functions with specific training, they are a *by-product* of the versatility infantry derives from fulfilling its primary role and do not constitute necessary additions to the role in themselves. Moreover, and critically, time spent preparing infantry to fulfil functions beyond its primary role comes at the expense of the quality of the infantry fulfilling its traditional roles in combined arms teams.

SUMMARY SO FAR

Infantry's unique characteristics are a function of its ability to operate at the point of decision on foot.¹² Infantry's characteristics enable it to mitigate many of the weaknesses and capitalise on the strengths of other arms in the combined arms team. Therefore, when combined with other capabilities in combined arms teams, infantry generates important tactical dilemmas for its enemies and synergies for the combined arms team. Other capabilities can achieve the same ends and produce the same effects that infantry can (and, of course, many that infantry cannot). However, infantry's value is not necessarily the ends it achieves or the effects it produces by itself but in its ability to achieve these in ways, circumstances and environments that others cannot. Therefore, the primary conclusions of the analysis so far are threefold. First, the defining characteristics of

...individual infantry
proficiency and collective
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infantry are its ability to function in all seasons, weather and terrain, its ability to hold, its ability to kill at close quarters and its ability to capture. Second, infantry is highly versatile, which is a function of its ability to generate soldiers trained to fight on foot. Third, individual infantry proficiency and collective infantry capability require a significant investment in time and resources.

The implications of these conclusions are that a highly trained infantry capability is imperative for contemporary warfare; infantry must be capable of functioning with other arms and services; and time and resources invested in the infantry that are not directly related to the infantry's primary role diminish the unique characteristics that make the infantry the core component of many combined arms teams. The next section of the article looks at the Land 400 Combined Arms Fighting System in light of these implications.

IMPLICATIONS FOR LAND 400 CAFS

INFANTRY INTEROPERABILITY WITHIN COMBINED ARMS TEAMS

The imperative for infantry to contribute to combined arms teams implies that every level of infantry manoeuvre grouping (section – battalion) must be capable of communicating with and achieving similar levels of tactical mobility and protection to the other arms and services within the combined arms team. This imperative is currently met by the diversity and multi-skilling of infantry across four basic configurations: mechanised infantry, motorised infantry, light infantry, and Special Forces.¹³

TYPES OF INFANTRY UNDER THE CURRENT FORCE MODEL

The mechanised infantry. Mechanised infantry closes with the point of decision mounted in integral armoured fighting vehicles (AFV). Mechanised infantry allows for the combination of the unique infantry functions with tanks without compromising armoured functionality and tactical mobility. Mechanised infantry has greater relative tactical mobility, firepower, protection and endurance than light infantry in many circumstances. It is generally less vulnerable, better protected, and possesses greater firepower than motorised infantry. However, the coupling of infantry with a vehicle limits its ability to operate in certain environments because there are places that armoured vehicles cannot move into or through, and a relatively large sustainment cost must be considered. Mechanised infantry additionally require greater amounts of strategic lift to deploy. It also requires different training regimes because of the requirement for the infantryman in mechanised battalions to be capable of operating and maintaining the AFVs.

The motorised infantry. Motorised infantry is a term used to describe infantry mounted in integral protected mobility vehicles (PMV). This configuration affords infantry levels of mobility and protection between light infantry and mechanised

infantry. It allows infantry to move to a location short of the point of decision protected as far as is safe to do so, then dismount and conduct operations on foot. However, unlike the mechanised infantry, motorised infantry is not configured to deliberately fight from its PMV at the point of decision. Because motorised infantry is coupled to an integral vehicle it also suffers from the same disadvantages as mechanised infantry to a greater or lesser extent.

The light infantry. Light infantry allows for an almost limitless range of operating environments. Light infantry possesses greater relative strategic mobility to mechanised and motorised infantry because of the relative simplicity of deployment, and the ability to move by a range of strategic means in relatively few lifts. Light infantry can conduct vertical manoeuvre, direct ship to objective manoeuvre, and dismounted infiltration. Light infantry closes with the point of decision and fights on foot, while retaining the capacity to operate with armour and cavalry as mounted infantry (currently mounted in Bushmasters from an armoured personnel carrier (APC) Squadron). However, once separated from its means of mobility, light infantry is relatively vulnerable, less mobile, and lacking in firepower and first line support.

Special Forces. Special Forces possess the key characteristics of motorised and light infantry but with the ability to function covertly, clandestinely, and unconventionally. Special Forces skills are highly refined allowing for greater precision, austerity, independence, innovation and discretion. Current levels of language competence, which are over and above that of the other infantry types, enhance Special Forces' ability to operate among the people. Therefore, Special Forces are the most versatile of all military forces. However, the selection and training requirements for Special Forces are such that they are relatively scarce. This fact, coupled with the lack of enablers to function for extended periods above sub-unit level, means that Special Forces are incapable of generating the critical mass that conventional infantry can.

...once separated from its means of mobility, light infantry is relatively vulnerable, less mobile, and lacking in firepower and first line support.

TYPES OF ARMOUR UNDER THE CURRENT FORCE MODEL

In addition to the four infantry types, the Australian Army's manoeuvre forces include three distinct types of armour. According to Land Warfare Doctrine 3-3-4, *Employment of Armour*,

armour is the generic term for the weapons systems that combine firepower, mobility and protection, and the military organisations that employ such systems.¹⁴

It also states that:

throughout history, all armour has been based on this combination, and the trading of one to increase another. In the 21st century, this combination has become a quartet of capability through the addition of networked communications.¹⁵

The role of armour is to locate, identify and destroy or capture the enemy, by day or night, in combination with other arms, using fire and manoeuvre.¹⁶ The three doctrinal types of armour include tanks, cavalry and armoured personnel carrier. Like the four types of infantry, the three types of armour provide different capabilities that contribute uniquely to combined arms teams. The Australian Army is not currently fielding any separate armoured personnel carrier capability at the moment—it currently provides protected mobility lift from a former APC unit equipped with PMV instead of APC.

Tanks. The role of tanks is, in coordination with other arms, to close with and destroy the enemy using firepower, manoeuvre and shock action.¹⁷ Tanks, like infantry, are capable of seeking out, closing with and killing the enemy. Tanks can repel attacks and are capable of operating by day and by night in a variety of terrains. However, there are certain terrain types that tanks cannot operate in without significant manoeuvre enhancement capabilities and there are some terrain types that tanks cannot operate in at all. Tanks are the best protected land platform available to the Army. Tanks also possess the greatest firepower of any manoeuvre element in the Army. The most significant and unique contribution of tanks to the combined arms team is the ability to produce the phenomenon of shock action.¹⁸ Tanks, like mechanised infantry, come with a significant logistic and strategic movement cost. Tanks never plan to fight as a single arm and always plan and configure to fight as a combined arms team, especially with other armoured elements.

Cavalry. The role of cavalry is to locate, dislocate, and disrupt the enemy through the conduct of offensive, defensive and security actions.¹⁹ Cavalry closes with an enemy in integral AFVs. Cavalry is an economy of force organisation; this means it is an austere organisation designed to perform its task over great distances in the face of a numerically superior foe. The trade off is that cavalry is less dense than infantry and therefore cannot accept decisive engagement and still perform its mission. Therefore, its role of locating, dislocating and disrupting implies actions that support other forces' attempts to seek decision. It is less vulnerable, better protected, and possesses greater firepower than light or motorised infantry.

The most significant and unique contribution of tanks to the combined arms team is the ability to produce the phenomenon of shock action.

Nevertheless, the cavalry shares, to a greater or lesser degree, some of the qualities and characteristics of mechanised infantry; particularly with respect to terrain limitations, sustainment costs and strategic lift. However, under the current force model, the cavalry vehicle provides a different capability to the mechanised infantry in two important respects. First, its sensor systems make cavalry far more effective at reconnaissance and surveillance than mechanised infantry. Second, its primary weapon system enables it to generate more suppressive and destructive firepower than mechanised infantry.

Three types of armour and four types of infantry seem to be excessive for a Regular Army that can generate just ten battle-groups. This excessive mix of types causes unnecessary force generation complexity, increases the breadth of skills that infantrymen and armoured troopers must be proficient in, consequently diminishing the quality of the armoured and infantry capabilities in some cases. Rationalising the seven types of manoeuvre forces is likely to enable Land 400 CAFS to achieve more than would be possible under the current paradigm.

Rationalising the seven types of manoeuvre forces is likely to enable Land 400 CAFS to achieve more...

PROJECT LAND 400 COMBINED ARMS FIGHTING SYSTEM AND THE TYPES OF INFANTRY AND ARMOUR

In light of the analysis of the current infantry and armour model, and in light of the analysis of the role of infantry in contemporary warfare, critics are likely to judge the success of Land 400 CAFS based on the extent that it achieves the following outcomes:

- it must provide for enhanced armoured reconnaissance and surveillance capability
- it must provide infantry and cavalry with improved levels of mobility and armoured protection, and increased firepower
- it must accommodate an infantry capable of its role on foot independent of vehicles when appropriate
- it should enable greater flexibility and a greater range of possible infantry/armour combinations in combined arms teams
- it should make it simpler and easier to generate and maintain task organised forces for operations and afloat amphibious platforms
- it should not diminish nor duplicate the unique contributions of tanks and Special Forces.

A short analysis of the employment of Australian infantry and armour on operations in the last half century reveals that the current structure of the Army's manoeuvre forces is misaligned with its function. The result has been an increase over time of

ad-hoc combined arms teams. In fact, the Army may well have inadvertently moved away from a more appropriate model, which it used throughout its operations in South Vietnam in the 1960s and early 1970s. The basis of this model was a single type of infantry battalion and a single type of APC squadron, each designed to operate in combination with each other and independent of each other. Under that model, the infantry was capable of dismounted infiltration independent of the APC squadron to seek out and close with the enemy undetected in complex terrain. This enabled the infantry to initiate over 80 per cent of engagements on its terms. It also enabled the APC squadron to conduct reconnaissance, flank protection, route security, convoy protection and escort, and other cavalry tasks independent of the infantry as appropriate. In combined arms teams the APC squadron provided accurate and sustained supporting machine gun fire, mobile mortar bases, ready reaction forces, armoured ambulances and resupply. The APC squadron inserted, redeployed and extracted infantry under fire. It also conducted insertions and extractions of Special Forces. And, of course, combined infantry and APC teams conducted attacks, defence, cordon and search, ambushes and advances to contact.

...the infantry was capable of dismounted infiltration independent of the APC squadron to seek out and close with the enemy undetected in complex terrain.

The Australian infantry encountered a strong force of Viet Cong during the afternoon and received supporting fire from artillery located at Nui Dat. 'D' Company, however, became pinned down and ran short of ammunition as the hostile force, now estimated at more than three companies, began to surround it. Because of the nearness to Nui Dat, the Australian infantry were on foot without armoured personnel carriers; there were no United States tanks in the area.

Back in Nui Dat, most of the personnel of No 3 Troop, 1st APC Squadron ... was 'scrambled' on an urgent call to pick up 'A' company of the 6th Battalion and go to the relief of 'D' in the rubber plantation about 1000 yards north-west of Long Tan.

As the line of armoured personnel carriers swept through the young rubber plantation in pouring rain, figures were seen at fairly close range. Corporal J A Carter, in charge of APC No 13 on the right of the line, said later: 'They looked like green uniforms. I thought they might be Delta Company.' Immediately the Australian carriers came under fire. Directed by Lieutenant Roberts they drove straight ahead with guns firing. The enemy, numbering about one hundred, broke and ran.

... Roberts continued the sweep northwards, firing on the move and over-running several other hostile groups. He then swung his carriers east to drive the enemy away from 'D' Company's position. Under heavy automatic fire from his front and left flank, Roberts caught a glimpse of 'D' Company as his carriers literally charged the enemy. This finally routed the opposition and they were seen no more.²⁰

The employment of infantry and armour has followed a similar pattern on operations in the last two decades (although under very different circumstances). It has followed this pattern despite restructures of infantry and armour in the 1980s, 1990s and 2000s leading to a range of very specific types. The 1 RAR Battalion Group in Somalia in 1993 operated according to the same model used in Vietnam to great effect. Recent operations in Timor Leste, Iraq and Afghanistan have also followed a similar pattern where APC, cavalry (sometimes operating in the APC role) and infantry have operated together and independent of each other in highly flexible combinations.

However, unlike 1965–72, recent combinations of infantry and armour have been ad-hoc. For example, infantrymen that have been trained to operate with an integral AFV have deployed as light infantry to operate from cavalry vehicles. In addition, crews of integral PMVs from a motorised infantry battalion have acted as PMV

crews for infantrymen from a light infantry battalion in an APC role. Tank crews have also acted as PMV crews on occasions. The cavalry/infantry combinations as used in Iraq and Afghanistan are not a normal part of 'steady state' training and only occur during the lead up to and conduct of operations. The reality is that the current structure of infantry and armour does not support the method of employment (the form does not follow the function). These ad-hoc arrangements diminish the quality of both the armour and the infantry, who, under the Vietnam model, would have been able to achieve much higher levels of core capability. In addition, force generation and task organisation for deployment would have been much simpler under the Vietnam model. Therefore, a Land 400 CAFS force structure consisting of a single type of infantry battalion and a single type of cavalry regiment, or divided between more specialised reconnaissance cavalry and APC regiments, with all forces designed to operate in combination with each other and independent of each other, is clearly worth exploring.

The cavalry/infantry combinations as used in Iraq and Afghanistan are not a normal part of 'steady state' training...

CONCLUSION

The analysis in this article supports an infantry configuration that can maximise the potential to operate with the highest levels of tactical skill independent of vehicles if required, while retaining the ability to operate with the full range of likely combined arms teams that Army might deploy (airmobile through to armoured). This demands the ability for each collective organisational level of the infantry—from fire team to battalion—to be able to execute successful tactical actions in accordance with its role. Implicit in this capability is the ability to move to the point of decision in whatever mobility means that circumstances demand. This might be on foot, airmobile, mounted in protected mobility vehicles, or in armoured fighting vehicles. To maximise versatility in a small army, it also demands common infantry procedures and equipment across the whole capability, which are also common across other arms and services where possible. This is not currently the case.

The Land 400 challenge is further complicated by the fact that both the current mechanised infantry and motorised infantry vehicles are inherently simple. There is a very real probability that the Land 400 CAFS will be as complex and technically demanding (if not more so) as a main battle tank. The current mechanised and motorised infantry model of APC and PMV crews rotating through crew positions as a part of career development and progression may not be achievable or cost efficient.²¹

A simplified model that combines expert infantrymen with expert vehicle crews within or between armoured and infantry units, is ideal. Such a model would conform to the function of armour and infantry in recent operations and is likely to enhance the quality and flexibility of combined arms teams. Moreover, a simplified model will alleviate many current force generation issues and will simplify the generation of future forces for the Amphibious Ready Group.

Acceptance of a new model will require a significant shift in mindset of both the infantry and the cavalry.

ENDNOTES

- 1 *Adaptive Campaigning* defines 'complex terrain' as the environment shaped by physical, human and informational factors that interact in a mutually-reinforcing fashion. It is terrain that limits the utility of technological intelligence, surveillance and reconnaissance and reduces opportunities for long range engagement with a consequent increased emphasis on close combat.
- 2 Colonel HR McMaster, *Crack in the Foundation: Defence Transformation and the Underlying Assumption of Dominant Knowledge in War*, Center for Strategic Leadership, Carlisle, 2003, p. 62.

- 3 Ibid., p. 46.
- 4 For the purpose of this article, a point of decision is defined as that portion of time and space at which the success or failure of a mission is in the balance—the outcome will be decided.
- 5 John A English and Bruce I Gudmundson, *On Infantry*, Revised Edition, Praeger, Westport, 1994, p. 110.
- 6 Ibid., p. 111.
- 7 Matt Matthews, *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War*, Combat Institute Studies Press, Fort Leavenworth, 2007, p. 64.
- 8 McMaster, *Crack in the Foundation*, p. 64.
- 9 *Adaptive Campaigning* uses the term ‘population protection’ to describe the act of maintaining physical control of a population to deny enemy influence over that population and to allow for the application of other means to gain community collaboration.
- 10 US Army FM 3-24, *Counterinsurgency*, 15 December 2006.
- 11 Justin Kelly, ‘How to win in Afghanistan’, *Quadrant Online*, Vol. LIII, No. 4, April 2009, <<http://www.quadrant.org.au/magazine/issue/2009/4/how-to-win-in-afghanistan>>
- 12 For the purpose of this article, a point of decision is defined as that portion of time and space at which the success or failure of a mission is in the balance—the outcome will be decided.
- 13 This model deliberately excludes Regional Force Surveillance Units for the sake of clarity.
- 14 Land Warfare Doctrine 3-3-4, *Employment of Armour*, Department of Defence, 2009, p. 1–2.
- 15 Ibid.
- 16 Ibid., p. 1–4.
- 17 Ibid.
- 18 Shock is the paralysing effect created by rapid and simultaneous actions that render an enemy incapable of making an effective response.
- 19 Ibid.
- 20 Major General RNL Hopkins, *Australian Armour: A History of the Royal Australian Armoured Corps 1927–1972*, Australian War Memorial Publishing Service, Canberra, 1978, pp. 242–43.
- 21 It currently takes five weeks to train a main battle tank driver, who then serves in a unit before undergoing five weeks training to become a gunner, followed by further service in a unit and a further eleven weeks training for a crew commander. If infantry were to continue the ‘streaming’ approach to the mech trade, the time spent in the mech crewman role may have to be extended.

THE AUTHORS

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CONCEPTS

WHO SHOULD DRIVE IN THE MOTORISED BATTALION?

WARRANT OFFICER CLASS TWO KENT DAVIES

ABSTRACT

This article discusses the option of crewing all Motorised Infantry Battalion Protected Mobility Vehicles with Royal Australian Corps of Transport (RACT) drivers to better realise the capability of the vehicle.

INTRODUCTION

The Protected Mobility Vehicle (PMV) has been in service for about five years. Originally conceived to provide protected battlefield mobility to an infantry section, the vehicle is now being used in a wide variety of roles across the Army and Air Force. It is an extremely versatile and capable vehicle which lends itself to a multitude of tasks outside its original design parameters. It is currently issued in six variants, with more on the drawing board. The vehicle's nature brings with it many challenges to commanders at unit and formation level, related to its employment and its impact upon manning and training in PMV equipped units.

The current doctrinal structure of the Motorised Infantry Battalion is contained in LWD 3-3-7 *Employment of Infantry*, 2008. The document itself indicates that the structure does not integrate the changes proposed by *Infantry 2012*, but it will

be used in this article as a baseline. The future structure of a Motorised Infantry Battalion may change but its general structure does not have an impact upon the thrust of this article.

The solution is clear: the Royal Australian Corps of Transport (RACT). As this article will show, the capability provided by the PMV will be enhanced by the introduction of RACT personnel into crew positions, which itself will improve the ability of the infantry to achieve their mission.

In essence the battalion has on establishment 67 PMV. The intent here is to discuss the methods by which those vehicles can be manned and crewed, how those personnel can be trained, and how sustainment of the appropriately trained personnel can be achieved. It is not the intent of this article to investigate the nature in which the vehicles are employed nor comment upon the relevance or otherwise of the current training regime.

VEHICLE CREWS

The primary challenge faced by commanders at all levels is crewing the vehicles. Within Australia, and in operational areas of low threat, the vehicle can be used as a simple troop carrier. That is, the crew consists of only the driver, with no requirement for a vehicle commander. Any variant can be moved by just the driver. In areas of high threat a vehicle commander is mandatory. With the addition of the Protected Weapon Station, FBCB2, CIED systems and the like to many vehicles, the requirement for a crew is obvious. The driver cannot both drive the vehicle and operate the ever-growing number of battle management systems being fitted to the vehicle.

What this means is that for every vehicle carrying an infantry section, two personnel from the section are required to crew the vehicle. The first question that springs to mind is: who from the section will crew the vehicle? This is important because it leads to so many more questions. What do we do when the section dismounts? Do we leave the crew with the vehicle, leaving the section two soldiers short? Do we leave just the driver with the vehicle with no ability to move and defend the vehicle at the same time? Do we leave a small protection party from the platoon with all the vehicles? Do we leave the vehicle unattended? What happens to the machine gun in the weapon mount? Who owns that weapon? A commander on the ground must decide who he needs least for his dismounted operations and balance that against placing one third of his platoon's mobility, strength and firepower, while mobile, under command of a member of a section who may not be the section commander.

**In areas of high threat
a vehicle commander
is mandatory.**

Units equipped with PMV who are required to conduct dismounted operations continue to struggle with these questions; however, what is highlighted is that the addition of a vehicle to an infantry section is not as easy as it may have appeared.

In numerical terms the crew requirement for the battalion's PMV could be as high as 134 personnel, given a driver and commander for each vehicle. On a worst case basis this means the commanding officer has a company worth of soldiers remaining with the vehicles when the troops dismount.

TRADE STRUCTURE

There is currently no trade structure in the Army that includes PMV qualifications. It is effectively an equipment course. To operate the equipment, personnel must be trained but the training is additional to the training and qualifications required by a member's trade. This has an impact on a unit's ability to crew the vehicles because everything contained within the trade structure mitigates against developing a pool of appropriately qualified and available vehicle crews.

Commanders must satisfy each member's trade training and career progression requirements as a primary duty. PMV training does not fit into this structure.

Commanders must satisfy each member's trade training and career progression requirements as a primary duty.

If, for example, we have a soldier trained to drive his section's PMV and he is promoted, does he still drive the vehicle? If not, another soldier must be trained. If a soldier is moved to another section, platoon or company he takes his qualification with him and his previous section is without a driver.

Promotions and internal postings are effected for good and necessary reasons but, over time, can have the effect of concentrating PMV qualifications in some areas while leaving others without qualified personnel.

For example, 1 Section, 1 Platoon could have five PMV drivers while 2 Section, 1 Platoon has none. Senior soldiers are routinely moved into Mortars or DFSW and again, they take their qualification with them, leaving their previous section's PMV without a driver.

At a higher level there is no motorised infantry trade within the RAIInf. Soldiers will routinely be posted from one battalion to another. If a PMV qualified soldier is posted from a motorised battalion to a light battalion, his qualification is effectively lost and another must be trained to replace him. This very issue has been the source of much angst in the mechanised battalions since the M113 was brought to charge. Many solutions have been tried and none have completely solved the problem.

ONGOING TRAINING REQUIREMENT

The issues highlighted above have the effect of producing an ongoing need for PMV training well above what the number of PMV on issue to a unit would indicate. It is not possible to examine the raw data and proclaim there are 180 trained drivers for the unit's sixty-seven PMVs; therefore the unit has no requirement for PMV training.

The devil, as always, is in the detail.

Internal and external postings, and competing demands for qualifications, will always inflate the PMV training requirement in a motorised infantry battalion.

This is also true for other units issued with the PMV. The movement of soldiers and their need for trade training will always take precedence over retention of PMV qualified personnel in positions where they require the PMV qualifications.

In terms of the skill sets involved, these will erode quickly if they are not practiced and reinforced. A qualified soldier will become less efficient as a driver if he is not practicing driving the vehicle. A vehicle commander will also have this erosion of skills and, combined with the driver, the net effect is a degradation of the capability of the unit.

There is also the issue of where the training will be conducted. Currently Motorised Combat Wing at the School of Artillery is the only training establishment providing PMV training. Given that over 700 vehicles will be purchased by Defence, the training capacity does not exist at MCW to train the requisite number of drivers. This means that decentralised training is a must. Who will conduct this training? Who in the motorised battalion can be spared from day-to-day duties and field and trade training to instruct on the courses? Can the battalion find the time to take twenty to thirty soldiers 'offline' to have them trained as PMV crews?

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driving the vehicle.

MAINTENANCE

The PMV was designed to require minimal operator maintenance, but there is still a maintenance bill. Like any vehicle the PMV will have component failures if basic maintenance is not routinely and correctly carried out. The burden imposed on the soldier by the PMV is in addition to other equipment maintenance duties and is often given a lower priority—particularly when the driver of the vehicle is 'in the seat' for only short periods during the year, and is unlikely to be responsible for a particular vehicle next year, or even next exercise.

As a movement asset in barracks, the PMV will spend a good deal of the time parked in a compound and ignored until needed, simply because of the competing demands on the soldier's time. Ongoing trade training will have a higher priority than either ongoing PMV training or maintenance.

For commanders, the PMV represents yet another corporate governance problem. The personnel available to conduct routine maintenance on the PMV are also required to conduct such maintenance on the rest of the unit's equipment. A commander cannot afford to have large numbers of soldiers dedicated to PMV maintenance at the exclusion of other duties.

A balancing act is required. Maintenance will not be conducted properly if soldiers are not skilled *and practiced* in doing so. As the PMV represents only a portion of a soldier's responsibilities, they are not routinely practicing maintenance skills and those skills will degrade quickly. The maintenance will not be conducted properly and the rate of equipment failure will rise. How does the unit commander balance these competing needs?

CAPABILITY

The PMV represents a significant capability boost to any unit issued with them. However, as we have seen, the capability is not the vehicle itself, but what it provides through trained and competent drivers and commanders.

The key to the capability is to maintain drivers and commanders who are themselves capable of operating and maintaining the vehicle.

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How can this be achieved? Many solutions have been proposed, from establishing a PMV or motorised trade stream within the RAInf, to increasing the number of riflemen in the battalion to provide the extra numbers required, or simply handing the vehicles over to the cavalry. All are possible, all would to an extent solve the problem, but all have risk.

MOTORISED INFANTRY TRADE

To introduce a new trade construct into the RAInf along these lines means much more than adding the PMV qualifications to the list already promulgated in Employment Category Standing Orders. It means, at the final analysis, removing a large number (two battalions) of soldiers from the rest of the infantry. These

members would not be able to be posted outside motorised battalions or all the problems and issues outlined above would simply continue. It also means that soldiers from outside the motorised battalions would not be able to be posted in, as they are not in the right trade. This solution does nothing but increase the requirement for PMV training, in addition to current trade training, far and above what it is now, as every rifleman will have to be qualified on the PMV.

INCREASE THE NUMBERS

Often seen as an easy fix to so many problems is a simple increase in manning. Increase the battalion's posted strength of riflemen and the problem would disappear. Again, all is not as it seems. Issues with trade qualifications, internal and external postings, promotions and so on would remain and, given the large numbers involved, would actually get worse.

Further, despite the best intentions of all involved, a rifleman is always a rifleman. His primary function is to seek out and close with the enemy. Day to day operational requirements will see the vehicle crews dismounted to put more boots on the battlefield. It is axiomatic that there are never enough troops to meet the operational requirement, and again these troops will be required to add the PMV skill sets to their trade skills, and practice them constantly to maintain currency.

CAVALRY CREWS

Simply giving the vehicles to a cavalry unit would appear to solve the problem. The cavalry have the requisite skill sets for vehicle command, and the training burden to convert drivers from ASLAV to PMV is significantly less than training another soldier from scratch. Cavalry soldiers have the ingrained vehicle culture to give the requisite priority to vehicle maintenance and, more importantly, the maintenance of the skill sets. However, the cavalry cannot be expected to sit idle, waiting for a task order from the infantry battalion. Troop lift will form part of the cavalry's responsibilities, but it will never be their primary task. The cavalry unit will also be conducting reconnaissance and screening and the myriad of other traditional cavalry functions. Requests for troop lift will simply be another task to be prioritised and fit into an already busy schedule.

This solution also flies in the face of the reason for having the vehicle and the motorised infantry concept itself. The capability is to provide *integral* protected mobility. It also does not account for the different variants of PMV. Would a cavalry unit be prepared to detach a crew to man the mortar variant or the ambulance? Will the brigade headquarters command variants be crewed by the cavalry? It is doubtful.

The crews for these vehicles must be available at all times to provide that integral support, not only to the infantry battalion, but to any unit issued with PMV.

THE SOLUTION

So, where lies the solution? The need is clearly for a pool of personnel posted to PMV crew positions who are:

- a. trained as PMV drivers, commanders and instructors;
- b. capable of conducting ongoing competency and currency training to maintain the capability;
- c. possessed of a vehicle culture;
- d. unlikely to be tasked as riflemen, signallers, mortar detachments and so on; and
- e. able to embed the PMV qualifications into their existing trade structure seamlessly.

Where can we find these personnel? In the RACT driver trade.

If we use the figure above as the standard number of PMV in an infantry battalion, the number of RACT personnel required could be as high as 134. This represents a significant increase to the unit's manning and many commanders would posit that an increase on that scale should be riflemen, not more support staff that cannot be used to fight the battle. But this is lazy thinking. PMV crews are in direct support of the riflemen. They are not working in an echelon or performing a support function at forward operating base. They are in the field with the sections providing the capability represented by the PMV itself.

Further, a modicum of intellectual effort expended on the actual crewing requirements would show that the battalion needs nowhere near 134 personnel dedicated primarily to manning the PMV fleet if RACT personnel are used.

MANNING

The issue with manning PMV positions revolves primarily around what happens when the section dismounts. How do we answer the questions posed above? The allocation of one RACT private per PMV as the driver immediately solves many of the problems.

When the sections dismount, the drivers remain with the vehicles. They have mobility as their primary defence and can move to a harbour area, or move away from contact if required. They have radio communications with the dismounted troops and can be called forward at any time. Now we add in a RACT corporal, trained as a vehicle commander. The corporal is positioned in one of the vehicles, and the other platoon vehicles have infantry section commanders as vehicle commanders while mounted. When the troops dismount, the RACT corporal becomes the section commander of the vehicles. That one vehicle has a machine gun allocated to it so that when the troops are dismounted the vehicles have the ability to return fire as they move away from enemy contact. The other vehicles use the section's weapons while the troops are aboard, but are unarmed once the troops

dismount. In terms of the platoon, two vehicles remain with only a driver and one vehicle with a driver and commander. At platoon headquarters level the two vehicles require a driver each and a RACT sergeant to command one of the platoon's vehicles. The rank here is important as the sergeant may need to take command, for movement, of the manoeuvre support and attachment vehicles as well. Again, one machine gun should remain with the vehicle commanded by the RACT sergeant. Manoeuvre support vehicles would require only a RACT driver and would remain with the other platoon vehicles if their troops are operating away from the vehicles. It is unlikely that manoeuvre support personnel will dismount and leave the vehicles, but the addition of the RACT driver will provide a soldier dedicated to the operation of a significant component of their capability which is distinct from the manoeuvre support they provide the platoon.

In broad numerical terms the addition to the battalion's manning would be in the order of five RACT soldiers for every four vehicles. Over the battalion's sixty-seven vehicles, this means an increase of about seventy-five personnel. Obviously these numbers are not exact and a good deal depends on the eventual structure of the battalion, but they are accurate enough to illustrate the point that 134 personnel are not required if the vehicles were crewed by infantry or cavalry soldiers.

The infusion of RACT personnel will have a corollary effect of providing a rank pyramid for the PMV crews. Each company would effectively have a transport platoon, and battalion headquarters could have an operations cell devoted to transport matters which encompasses not only the PMV, but all the battalion's transport assets. The inclusion of RACT officers in key positions would ensure seamless integration of all forms of lift (particularly with the advent of LAND 121) into operational planning, at all levels.

CAPABILITY

The inclusion of RACT personnel will actually provide a capability increase to the battalion. The infantry soldiers will be freed to concentrate on their primary functions and mission, while the platoon commander retains the flexibility to employ the vehicles as fighting platforms, as infantry commanders will still command the bulk of the vehicles while mounted.

The current training regime for the PMV will equip RACT soldiers to integrate into the sections and platoons, and provide a force multiplier for the infantry.

The issue with manning PMV positions revolves primarily around what happens when the section dismounts.

ONGOING TRAINING

By allocating RACT personnel as PMV crews, the posting cycle is now working in our favour in terms of ongoing training. These personnel will be posted into these positions for the entirety of a posting cycle. They will not be re-allocated to Direct Fire Support Weapons or sent away on a sniper course. Therefore the primary training bill will be at the beginning of the year when new, possibly unqualified, personnel are posted in. In any given year the maximum number to be trained would probably be no more than one third of the establishment.

The requirement for continual training of crews, as personnel are internally or externally posted, is gone. Unplanned personnel movement due to promotions, compassionate postings and the like are entirely manageable.

The other advantage to the allocation of RACT personnel to these positions in terms of training is the 'in built' capacity of the RACT to train. The Driver Testing Officer qualification trains and qualifies personnel to conduct decentralised driver training. All RACT driver trade sergeants and warrant officers hold this qualification, as do many corporals. This immediately gives the battalion an embedded training team, more than capable of conducting the ongoing training required to crew the unit's vehicles.

For the RACT trainee there is a direct training convergence of their trade skills to the PMV. This lessens the training requirement. Courses will be shorter, as Recognition of Current Competence (RCC) will be applicable. Currently it is difficult to apply RCC to a course because each trainee has different skill sets and different driving competencies. On a RACT course all trainees have the same start point.

This immediately gives the battalion an embedded training team, more than capable of conducting the ongoing training...

CURRENCY MAINTENANCE

The RACT already has a 'vehicle culture'. By posting RACT personnel to PMV crew positions, the battalion gains personnel whose sole purpose is to provide capability through the PMV. It is likely that each crew member will be assigned to a particular vehicle for the duration of the posting and therefore has a keen interest in maintenance of both the vehicle and the operating skills required.

The PMV qualification embeds perfectly into the RACT driver trade. The basic skills required are not significantly different from any other vehicle and these qualifications will fit the Employment Category Standing Orders for the driver trade. The additional skills, communications, formations and methods of movement will

also have direct relevance to the training that will be required for the LAND 121 protected vehicles when they are introduced into service.

NON INFANTRY UNITS

For non infantry units issued with the PMV, the benefits to assigning RACT personnel to PMV crew positions are identical to the motorised battalion. The issues are the same and this solution will again allow non RACT personnel to concentrate on their primary duties, be that as a signaller in a brigade headquarters or a medic in the PMV ambulance.

CONCLUSION

The PMV training can, and should be, integrated into the Employment Category Standing Orders for RACT drivers. Permanent PMV crew positions should be allocated to the RACT. Such a move would provide the capability increase represented by the PMV without a decrease in any other capability. In effect the RACT personnel would provide a force multiplier against the current situation where the PMV is a force divider.

The Army generally, and motorised units in particular, continue to struggle with integrating the PMV into their operations. The issues involved are diverse and vary according to the corps and trade of the personnel assigned as PMV crews. Possible solutions are just as varied but none appear to provide a long-term sustainable method of crewing the vehicles except the allocation of RACT personnel to PMV crew positions.

THE AUTHOR

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CONCEPTS

THE BLIND SPOT IN ROBOT-ENABLED WARFARE

DEEPER IMPLICATIONS OF THE IED CHALLENGE

DR PATRICK HEW

ABSTRACT

This article argues that Improvised Explosive Devices are robots. In declining to make this connection, Western militaries have been blind to their adversaries' use of robot-enabled warfare. The effect has been to render Western soldiers tactically and operationally reactive, and on the wrong end of attrition warfare. The resolution lies in understanding how robots are supervised, and how a robot-enabled force can enable its personnel to out-adapt their human foes.

INTRODUCTION

The rapid fielding of unmanned systems in current and recent operations has prompted an urgent call for concepts and doctrine.¹ However, the extant notion of a 'robot' assumes that they need to be of some minimum (but unspecified) sophistication to be worthy of attention. This assumption is self-imposed by the West, and constitutes a blind spot on how robots can be constructed and employed.

This article describes a space of possibilities for *robot-enabled warfare*, and locates the West's blind spot. Within this blind spot, the West's adversaries are already

exploiting robot-enabled warfare for structural advantage. That said, the West can still implement robot-enabled warfare for comparable advantages, without compromising existing strengths. The key is to understand how robots are actually an enabler to agility, and that robot-enabled warfare is inherently about out-adapting the human foe.

WHAT IS A 'ROBOT'?

We conceptualise a 'robot' in a manner that recognises both the technical and philosophical viewpoints. From a technical viewpoint, a 'robot' is a programmable machine that can sense and manipulate its environment.² A robot is intermittently programmed by one or more operators, in what engineers call *supervisory control*.³ Supervisory control defines the robot's degree of *autonomy*. This can be quantified as the time intervals between the operators' supervision of the robot. Short time intervals correspond to low autonomy, while longer time intervals correspond to higher autonomy. Informally, when autonomy is low, the human supervisor is 'in the loop', while 'on the loop' corresponds to high autonomy.⁴

In the philosophical schools of action and agency, *autonomy* has stronger connotations, relating to 'intentionality' and 'free will'.⁵ We can address this by introducing the notion of *self-supervision*. A *self-supervising robot* is one that can conduct supervisory control on itself. Self-supervision is thus more than 'supervision at infinite autonomy'. If a human programs and deploys a robot, but then never visits it again, the robot is being supervised at infinite autonomy.

To be self-supervising, the robot needs to have the capacity to inspect and rewrite programs, and the program needs to be able to take itself as its own input (without self-destructing). Currently, there are no known working examples of self-supervising robots, only thought experiments and fiction (for instance, the robots depicted in the *Terminator* movie series).⁶ We can place robots on a spectrum, with *human-supervised* robots ranging from zero up to infinity under the technical definition of autonomy, and then a 'beyond-infinity' class for self-supervising robots.

Currently, there are no known working examples of self-supervising robots, only thought experiments and fiction...

ROBOT-ENABLED WARFARE AND KILLER ROBOTS

Robot-enabled warfare is the application of robotics and automation to warfare, and especially to reach forms of warfare inaccessible to forces not equipped with robots. One form of robot-enabled warfare is to fit the robots with sensors and weapons,

and assemble them into sensor-shooter systems. The defining characteristic of a so-called *killer robot* is where the robot closes the firing loop from sensor to shooter. To emphasise an earlier point: self-supervising killer robots are a matter of fiction at this time. This may provide comfort to critics of military robotics.⁷

The potential from robotics is popularly summed up as Three Ds: Dull, Dirty and Dangerous. For a human-supervised robot, *autonomy* captures the spirit of Dull. That is, assign the robot to the Dull task, and free the human to do something else. An example is a radar warning receiver, in replacing gunners as employed on Second World War aircraft. The Dull (but stressful) aspect was in scanning the skies for enemy fighters, and warning the pilot to evade. A Second World War bomber typically dedicated two gunners to this task, while a modern aircraft uses electronics. Table 1 gives further examples.

The potential from robotics is popularly summed up as Three Ds: Dull, Dirty and Dangerous.

Table 1: Examples of killer robots at increasing autonomy.

System	Weapons	Sensors	Autonomy
Sentry Tech	0.5 cal. 7.62mm machine gun, anti-tank missiles	Electro-optical / Infrared with night vision	Zero autonomy (remote control), sentry operations on the Gaza strip.
Special Weapons Observation Reconnaissance Detection System (SWORDS)	Small arms from 5.56mm to 66mm	Electro-optical / Infrared with night vision	Zero autonomy (remote control), in infantry operations.
VIPeR	Small arms	Video camera	Zero autonomy (remote control), in infantry operations.
Predator, Reaper, Sky Warrior	Hellfire missile	Electro-optical / Infrared with night vision	Zero autonomy (remote control), direct attack and air support missions for counterinsurgency.
HARM (Lock-On After Launch)	Fragmentation warhead	Passive radar seeker, Laser-proximity/ impact fuse	Autonomy on the order of tens of seconds in Lock-On After Launch. Fired into airspace over a suspected air-defence site, HARM will home in on the radiation emitted by radars.

Table 1 (continued)

System	Weapons	Sensors	Autonomy
ASRAAM, AIM-9X	Fragmentation warhead	Imaging Infrared seeker, Laser-proximity / impact fuse	Autonomy on the order of tens of seconds in Lock-On After Launch. Launched as a fire-and-forget anti-aircraft missile.
ALARM (Loitre)	Fragmentation warhead	Passive radar seeker, Laser-proximity fuse	Autonomy on the order of minutes in Loitre mode. Like HARM, ALARM targets the radiation emitted by radars. If the target shuts down their radar, ALARM will loft to altitude and deploy a parachute. If the target then starts up, ALARM will re-attack.
Aegis Air-Warfare Combat System (Auto Special)	SM-2, SM-6 surface-to-air missiles	SPY-1 radar	Autonomy on the order of minutes, the interval between activating the 'Auto Special' mode. Designed as part of multi-layer defence of US carrier battlegroups against multi-regiment Backfire raids.
SGR-A1	M249 Squad Automatic Weapon	Colour camera	Autonomy on the order of minutes to hours, over some patrolling time. Deployed overlooking the Korean Demilitarised Zone.
Phalanx / Centurion Close-In Weapon System	20mm cannon	Radar, infrared	Autonomy on the order of minutes to hours, over some patrolling time. Deployed for last-ditch defence against missiles, rockets or artillery.
Captor mine	Mk 46 torpedo	Acoustic	Autonomy on the order of hours to days, deployed into contested waters.

We can then think of Dirty and Dangerous as a *distance* between the robot and its supervising human (if it has one). An example is a robot used by Explosive Ordnance Disposal technicians to inspect and disarm a suspected bomb. Historically, the technician would have had to work well within the potential blast radius of the bomb. The robot enables the technician to place distance between themselves and the immediate danger. Table 2 gives further examples.

Distance and autonomy are distinct. We can have robots operating at low or high autonomy from their humans, and also at short to long distances. For instance, if we compare Table 1 and Table 2, we see SWORDS and Reaper both being operated at zero autonomy, but at vastly different distances. Meanwhile, Aegis and CROWS are operated at similar distances, but at very different autonomies.

We can thus think of robot-enabled warfare as having (killer) robots deployed at some distance from their supervising humans, and at some degree of autonomy. Robot-enabled warfare is about exploiting both of these dimensions.

Table 2: Examples of killer robots at increasing distance.

System	Weapons	Sensors	Distance
Aegis Air-Warfare Combat System (Auto Special)	20mm cannon	Radar, infrared	Essentially zero distance. Aegis is supervised by the crew of warship.
Crew Remotely-Operated Weapon Station (CROWS)	Machine Gun	Video camera, thermal imager, laser rangefinder	Distance on the order of one metre, from the crew station in a vehicle to the external CROWS mount.
PackBot	Bomb Disposal Kit	Electro-optical camera, chemical vapour sniffer	Distance on order of tens to hundreds of metres.
Special Weapons Observation Reconnaissance Detection System (SWORDS)	Small arms from 5.56mm to 66mm	Electro-optical / Infrared with night vision	Distance on order of tens to hundreds of metres.
Predator, Reaper, Sky Warrior	Hellfire missile	Electro-optical / Infrared with night vision	Distance on order of thousands of kilometres. Current operations see aircraft over Afghanistan flown by operators in the continental US.

THE BLIND SPOT

The blind spot manifests in the following question: *Is the simple land mine a form of killer robot?* I contend that the answer is ‘yes’, and that answering ‘no’ constitutes a blind spot. There are two objections that have been raised by other commentators, and I address them here.

The first objection is that a mine is only ‘triggered’. They suggest that attention be restricted to entities that can ‘decide’ to kill.⁸ However, to disregard the mine as a killer robot is to dismiss all human-supervised killer robots. The delineation of ‘triggered’ from ‘decides’ merely repeats the line drawn between ‘autonomy’ and ‘intentionality’. Having distinguished between human-supervised robots and self-supervising ones for autonomy versus intentionality, we do not need a new classification for triggered versus decides.

The second objection is that a mine has an unsophisticated mechanism for closing the firing loop.⁹ This confuses mode-of-operation with effectiveness. Different killer robots may use different sensors, or have lesser or more sophisticated algorithms for finding, tracking and engaging a target. Moreover, the West has learned that unconventional does not mean ineffective.¹⁰ We ignore unsophisticated possibilities at our peril.

To build a killer robot, operating in some environment and at some autonomy, we only need sensors, weapons and sensor-to-weapon technologies of sufficient performance. If we are prepared to accept this premise, then we can see how the West’s adversaries are operating within the blind spot.

HOW ARE THE COALITION’S ADVERSARIES EXPLOITING ROBOT-ENABLED WARFARE?

Robot-enabled warfare is being employed today by al-Qaeda and the Taliban against Coalition forces in Iraq and Afghanistan. The implementation is via the car bomb, the roadside bomb and other forms of Improvised Explosive Device (IED).¹¹

The IED satisfies the critical requirement for being a ‘killer robot’, in closing a firing loop from sensor to shooter. In this case, the ‘shooter’ is an explosive, and the firing loop is closed by some form of trigger. The components need not be sophisticated. IED have been assembled from plastic explosive, blasting caps used for mining, or old artillery shells. Triggers have included washing machine timers, doorbell buzzers and parts from radio-controlled

The IED satisfies the critical requirement for being a ‘killer robot’, in closing a firing loop from sensor to shooter.

toy cars, with input from cell phone calls, pressure plates or passive infrared signals.¹² In 2007, the US military reported that the insurgents in Iraq had developed some ninety ways to trigger an IED.¹³

Once emplaced, the IED can wait autonomously to complete its mission, often without further intervention from the bomb-layer. At most, the IED might be remotely-detonated by the bomb-layer (a low-autonomy IED), otherwise it will be victim-activated (a high-autonomy IED).

The IED has been acknowledged by the Pentagon as 'the single most effective weapon against our deployed forces'.¹⁴ This reflects the warfighting advantages that a robot-enabled force can gain over a non-robot force, to include:

1. **Low-Cost Attrition Warfare.** A robot-enabled force can impose attrition warfare upon the enemy at low cost to the force. The key is to have robots that are cheap to assemble and deploy, compared to the effect that they create and the cost of countermeasures. The materials and skills for constructing an IED are readily obtained and replaced,¹⁵ with each IED having an estimated per-unit cost in the hundreds of dollars.¹⁶ For comparison, in 2004, an armoured Humvee cost roughly US\$150,000, or US\$1.8 billion to replace every Humvee then deployed in Iraq.¹⁷ Similarly, the annual budget for the US Joint IED Task Force (now US Joint IED Defeat Organization) rose from US\$100 million in 2004 to US\$1.3 billion in 2005.¹⁸
2. **Seizing the Initiative.** A robot-enabled force can distract its enemy from central goals into defeating the robots. The key is in the robots' autonomy; the enemy has to respect the robot as a threat, and thus split their attention between the robot and its human supervisor. Then, while the enemy is diverted by the robot, the human can make their next move. The distraction can be applied at all levels of conflict, from tactical through operational to strategic. As a soldier on the ground reacts to a recent or imminent IED, the bomb-layer may already be steps ahead in their playbook.¹⁹ Furthermore, al-Qaeda and the Taliban could be emplacing IED to sit undetected for years.

The counterinsurgency in Iraq and Afghanistan is, of course, more than the IED. However, we cannot address the deeper causes without acknowledging the symptoms, with the impact upon the West's forces and those whom they seek to protect.²⁰ The IED has certainly helped the Taliban and al-Qaeda to remain a viable adversary, and has arguably been decisive in doing so. Rather than scoffing at the IED as being an 'idiotic technology' (to quote one US general),²¹ we might regard the Taliban and al-Qaeda as being robot-enabled forces. This unfettered perspective

The IED has certainly helped the Taliban and al-Qaeda to remain a viable adversary...

invites us to consider other precedents for robot and counter-robot concepts, from other ‘non-conventional’ conflicts.

INFLUENCE OF THE BLIND SPOT ON CURRENT CONCEPTS

As a result of the blind spot, Western militaries have failed to recognise the autonomy dimension to robot-enabled warfare, and have failed to recognise the unique capabilities that their personnel have over robots. Currently, the West is headed down a path of *tele-warfare*—warfare fought at long distance. Tele-warfare is exemplified in remote-controlled systems like the Predator Unmanned Aerial Vehicle or the PackBot Explosive Ordnance Disposal robot, placing distance between a warfighter and the threat. This exploits the distance dimension, but not the autonomy dimension.

The West’s weakness in the autonomy dimension is characterised by fighting-in-the-now, as compared with fighting-in-the-future. Continuously watching a full-motion video feed (‘Predator crack’)²² to find, fix and track a target is fighting-in-the-now. To fight-in-the-future is to think about courses of action to take if a target is found, or if a target acts in a certain way. Fighting-in-the-now is ultimately reactive to the enemy—wait for something to happen, and then scramble to respond or counter. At best, fighting-in-the-now is a recipe for being highly stressed when events transpire.²³ The better alternative is to be proactive and fight-in-the-future—to think about what could happen, and then institute systems to shape or hedge.

The irony is twofold. First, humans are uniquely capable of being ‘on the loop’ to robots, with the human fighting-in-the-future to supervise the robot. Second, robots can fight-in-the-now at speeds and with effects that humans cannot match. Tele-warfare fails to recognise these two unique capabilities, and puts humans ‘in the loop’, fighting-in-the-now. Western militaries should recognise this situation, and reverse it.

DESIGN PRINCIPLES FOR ROBOT-ENABLED WARFARE

An al-Qaeda or Taliban insurgent can, within a matter of days, use modern, commercially-available technologies to construct and field a killer robot (IED). Said robot will be fit for its tactical, operational and strategic purposes. How does the West afford the same agility to its warfighters? In posing this question, we can postulate the West’s requirements from its robot-enabled force structure:

- **Enable human supervisory control at maximum possible autonomy.** Combat systems should support the warfighter to fight-in-the-future, and to have effective oversight of the robot as it fights-in-the-now. This is consistent with design for

command and control in the large,²⁴ in dynamically crafting the robot to the commander's intent, and controlling the risks of non-combatant or friendly casualties. Commanders need not be 'in the loop', micromanaging the robot's every action; rather they should be 'on the loop' of employing the robot to achieve the mission.

Systems design must cover both the technology and infrastructure of the human and robot, and the skills and training. A key element is likely to be in ethics, as part of ensuring that the robot has the 'right' program. Ethics has always been implicit in placing the weapon into a soldier's hands, but now the weapon can be dislocated from the soldier in both space and time. Robot-enabled warfare might thus serve as a rallying point for attaining focus and cohesion in military ethics programs.²⁵

- **Enable tactical innovation of the robot's construction and programming.** We need to regain the idea of *edge applications*, an idea proposed as part of network-centric warfare but subsequently watered down. Edge applications are constructed from services provided by the network, and tailored by individuals to their immediate needs at the 'edge'.²⁶ For the killer robot as an edge application, warfighters might draw on data and algorithms for automated target recognition,²⁷ or weapons including less-than-lethal options.²⁸

In contrast, the current acquisition processes are preoccupied with getting equipment into the field *at all*, let alone the idea that warfighters might assemble systems in ways not predicted when requirements were specified. Major infrastructure takes decades to acquire and deploy, and so-called 'rapid' acquisition can still take months.²⁹ This is too slow to match the 14–30 day cycle seen in contemporary conflicts, in the intellectual battle between system and counter-system.³⁰

These principles do not require new acquisition of major systems or infrastructure. They merely reconceptualise how systems can be assembled for warfighting effect.

CONCLUSION

It may be difficult to accept that the West is currently on the receiving end of robot-enabled warfare. The alternative is to attempt to prevail over an adversary that is fighting from a blind spot. That is not to say that the West should copy or even mirror adversary practices. Rather, it invites us to a deeper consideration of how capabilities can be built, and the assumptions behind the concepts for employment.

Systems design must cover both the technology and infrastructure of the human and robot, and the skills and training.

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FOOD FOR THOUGHT

RAT PACK CHAT

PRIVATE CAMERON ROBISON

ABSTRACT

Private Cameron Robison from 2nd Battalion, Royal Australian Regiment, is currently deployed with Alpha Company on Operation ASTUTE, and he is also a qualified fitness instructor. Like almost everyone who has ever eaten a combat ration pack, he has an opinion. However, the interesting points that Private Robison brings to this discussion are drawn from his own knowledge and experience in fitness.

‘C’est la soupe qui fait la soldat!’

– Napoleon

While attributed to Napoleon, the axiom ‘an army marches on its stomach’ is as relevant to military forces today as it has been to armies throughout history. Long ago, military leaders learned that the performance of soldiers on the battlefield was as much a reflection of their training, tactics and leadership as it was of the way that they were being nourished.

According to the Chief of Army’s Capability Intent (CACI), the Army, and individual soldiers by association, must be capable of engaging in sustained close combat in order to win the land battle.¹ Fundamental to CACI is the notion that the capacity

of Australian Army soldiers to engage in close combat must be both 'optimised' and 'sustainable'. While the provision of all classes of supply is important to optimising and sustaining the performance of soldiers engaged in close combat, the provision of Class 1 sustenance items, namely food and water, is vital to enhancing the capacity of soldiers to achieve enduring tactical success on the battlefield.

This article will attempt to provide an informed assessment to determine if Australian Army soldiers are being provided with the field rations that facilitate optimal performance over an extended period, optimising their capacity to achieve tactical success on the battlefield.

While no doubt an emotive issue, this article will refrain from a discussion of the palatability of the Australian Army Combat Ration Pack (CRP) as taste has no bearing on sustenance and nutrition but is based on personal opinion.

WHAT SOLDIERS NEED VERSUS WHAT THEY ARE GETTING

Fundamental to providing an informed assessment of the nutritional value of the Australian Army CRP is to describe the aspects of nutrition that are required to maintain a soldier in a field environment in order to keep them 'fighting fit'.

The average 21-year-old civilian male (178cm tall, 86kg, lightly active) is known to consume approximately 2700 calories on an average day. They have a diet of approximately 305g carbohydrates (45%), 105g of protein (30%) and 75g of fat (25%).² A 21-year-old infantry male soldier in the field, assuming they are of the same height and weight as the average civilian male, is expected to expend approximately 4000 calories a day. The requirement to consume an additional 1300 calories over and above that of the average civilian is due to the infantry soldier's exposure to mental and physical stress, lack of sleep and large physical output with minimal rest periods.³

In order to maintain a soldier's body weight, their intake of calories in the field environment/battlefield must match their 4000 calorie expenditure. If a soldier eats every item in an Australian Army CRP, which is exceedingly rare, they will consume approximately 2800 calories. This compares poorly to the United States Army Meal Ready to Eat (MRE), which contains approximately 3800 calories, the Mexican Army's Comida de Combate Individual Diaria Para Soldados, which contains between 3600 and 4050 calories and the Colombian Army's Ración de Campaña, which contains between 3100 and 3300 calories.⁴

In order to maintain a soldier's body weight, their intake of calories in the field environment/battlefield must match their 4000 calorie expenditure.

From a purely caloric perspective, not only will an Australian Army CRP not allow an average soldier to maintain their body composition but will force soldiers to go into a state described by nutritionists as ‘calorie deficit’, resulting in potentially dramatic weight loss and a decrease in fitness, strength and general wellbeing. Indeed, even if an Australian soldier consumes all of the contents of a CRP, it would mean that they suffer from a daily recommended calorie deficit of 1200 calories. Such an outcome is not conducive to optimising and sustaining the capacity of soldiers to achieve success in close combat.

ESSENTIAL NUTRIENTS

Vitamins and minerals play an important role in the health of a human, and their importance is often overlooked. Vitamins control chemical reactions that convert food into energy, and minerals primarily produce and regulate various hormones in the body. The body’s normal metabolism or ‘anabolic state’ is where the body recovers, increases fitness and potentially decreases fat. The opposite of this is to be in a catabolic state where the body does not recover, fitness decreases and fat potentially accumulates.⁵ In order to achieve anabolism, four important hormones are required, Human Growth Hormone (hGH), Testosterone, Insulin and Insulin-Like Growth Factor-1 (IGF-1).

hGH increases calcium retention; increases and maintains muscle mass; stimulates the immune system; stimulates organ growth and repair, including the brain; and promotes protein synthesis.⁶

Testosterone is similar to hGH in recovery and maintaining wellbeing. It contributes to mental and physical energy, increases and maintains cardiovascular health, increases and maintains muscle size and strength, and muscle synthesis. Testosterone also plays a role in the regulation of the ‘fight or flight’ response to stressful situations, which may assist a soldier to maintain aggression.⁷

Insulin is a hormone that has extensive effects on metabolism and other body functions. Insulin causes cells in the liver, muscle and fat tissue to take up glucose from the blood, storing it as glycogen in the liver and muscle, which is then burned as energy. Insulin will also increase amino acid uptake and arterial muscle strength.

IGF-1, as its name suggests, is similar to Insulin, but in addition to insulin-like effects IGF-1 can also regulate cell growth and development, especially in nerve cells, as well as cellular DNA synthesis.

Testosterone also plays a role in the regulation of the ‘fight or flight’ response to stressful situations...

In addition to vitamins and minerals, our body requires three main macronutrients to provide energy and nutrients: carbohydrates, protein and fat. Carbohydrates serve as a human's primary source of energy. There are 4.2 calories per gram of carbohydrate. They fuel all bodily functions and allow the body to operate. Carbohydrates are grouped into two categories: simple carbohydrates, which provide energy for short periods of time (such as glucose, sucrose, dextrose, found in confectionary); and complex carbohydrates, which take longer to digest (starches, such as breads and potatoes).

Protein is a part of every cell in the body, and no other nutrient plays as many different roles in keeping a human alive and healthy. Protein is responsible for the growth and repair of muscles, bones, skin, tendons, ligaments, hair, eyes and other tissues, and has the same 4.2 calories per gram as carbohydrates. It can also be used as an energy source, although not as effectively as the other two macronutrients.

Fats play a vital role in maintaining healthy skin and hair, insulating body organs against shock, maintaining body temperature and promoting healthy cell function. Vitamins A, D, E and K are fat soluble, which means they can only be digested, absorbed and transported in conjunction with consuming fats. Fats also serve as energy stores for the body, containing 9 calories per gram. They are broken down in the body to release glycerol and free fatty acids. The glycerol can be converted to glucose by the liver and thus used as an energy source.

NUTRIENT DEFICIENCIES

As previously stated, the average 21-year-old civilian male requires around 305g carbohydrates, 105g protein and 75g fat to fulfil their daily requirement of 2700 calories. As a soldier will burn, on average, 4000 calories a day, they will need to increase those figures by about 150 per cent. This translates to about 450g carbohydrates, 150g protein and 110g fat.

The majority of soldiers do not consume all of the contents of a CRP. The importance of this observation cannot be overemphasised. The indicative consumption of a CRP contents over a 24-hour period ranges from 1400–1500 calories. Of this, about 960 calories (229g) are from carbohydrates (with an overly large portion of that being sugar), 145 calories (34.5g) from protein and 320 calories (35g) from fat. Assuming a soldier of average build eats the average amount of food from their CRP, they are deficient of 221g of carbohydrates, 115g of protein and 75g of fat for every day they spend consuming CRP.

The amount eaten is not enough to even sustain the average 21-year-old sedentary civilian, let alone a soldier...

The amount eaten is not enough to even sustain the average 21-year-old sedentary civilian, let alone a soldier digging in, conducting fire and movement, and patrolling with minimal sleep.

An often discussed issue with the CRP is the large amount of sugar it contains. The benefit of adding such a large amount of sugar is an easy increase in carbohydrates and calories. However, purely increasing sugar content is not adequate to support a hard working soldier. A high sugar diet increases the chance of type 2 diabetes, tooth decay and cancer, decreases the body's production of the anabolic hormones Testosterone and hGH, and slows mental and muscular recovery. Complex carbohydrates differ from sugars as they release energy over a longer period of time.

Another problem with relying on sugar as a fuel source is its quick high, then equally quick low. During this low, the body becomes catabolic and burns muscle in an attempt to rectify the low blood sugar levels. Soldiers often make the mistake of trying to fix this problem by eating more sugar. The irregular spiking of blood sugar levels alters the normal release of Insulin and IGF-1, compounding the catabolic state the body is already in from poor diet and large calorie output. Coincidentally, the screening test for diabetes involves drinking a sugary solution that contains the exact same amount of sugar as the high energy sports drink found in a CRP (75g of sugar). It has been shown that the diabetes test lowers Testosterone for several hours.⁸

In addition to the high amount of sugar, the CRP also provides food containing artificial sweeteners. These chemically lower the brain's ability to interpret the total calories consumed.

On a subconscious level, the soldier's body will be unaware of the actual calories being consumed, making it harder for the soldier to maintain an adequate calorie intake. This is because the brain learns that it can gauge the calorie intake of food using characteristics, such as sweetness and viscosity. There are also a number of alleged side effects associated with consumption of artificial sweeteners including bloating, diarrhoea, nausea, skin irritations, wheezing, coughing, chest pains, heart palpitations, anxiety, anger, moods swings and depression.

Aside from the sugar levels, another important factor of the CRP is the level of salt. A person can lose 1–2g of salt per litre of sweat, and a soldier in the field can sweat a litre or more per hour. The total salt in a CRP is not listed in the nutritional information; however, it is estimated that an average soldier will only eat about 1–1.5g worth of salt from their CRP per day. As soldiers are not replacing salt lost

As soldiers are not replacing salt lost through sweat, there is a salt deficiency, greatly increasing the chance of heat injuries.

through sweat, there is a salt deficiency, greatly increasing the chance of heat injuries. Salt is required for muscles to contract and nerves to send and receive signals. A diet too low in salt leads to muscle aches, muscle cramping, dehydration, deterioration of mental awareness, confusion, headaches, nausea and low blood pressure.⁹

From the analysis provided above, it is my perspective that the current Australian Army CRP is failing to provide the nutritional requirements fundamental to optimising the performance of a soldier conducting close combat over a sustained period. In some cases, the evidence I have presented suggests that the high sugar content of the CRP is actively undermining the endurance and aggression (a by-product of Testosterone) in our soldiers. The good news is that the quality of nutrition provided by the CRP could be readily enhanced.

THE SOLUTION

Essential to enhancing the nutritional value of the CRP is increasing the protein, complex carbohydrates, fat and salt content, and decreasing the content of sugars and artificial sweeteners. An increase in protein content in the form of protein supplements derived from milk will promote enhanced recovery from arduous physical and mental activity. Whey in powder or snack bar form, for example, will afford fast digesting protein to increase recovery during rest periods and would also be appropriate for times when slow digesting protein is required to maintain the recovery process, such as pre-sleep or during piquets. Enhanced complex carbohydrate content will facilitate sustained energy release, thereby optimising a soldier's endurance. More fat will increase calorie intake and fat soluble vitamins. Increased salt content within pre-prepared foods will reduce the potential for heat illness and importantly, enhance the palatability of some meals.

Detailed below in Table 1 is an example CRP that rectifies the nutritional deficit defined previously. The crackers, muesli, tuna sachet, sports drink powder, two main meal sachets, salt 2g and tomato ketchup that feature in the extant CRP remain. However, the quantities of condensed milk, coffee and tea have all been halved. The M&Ms have been replaced with Peanut M&Ms. All other items listed in Table 1 are proposed additions to the extant CRP. These proposed additions have been bolded.

The nut mix would be a combination of salted peanuts, salted cashews, almonds, sunflower seeds and pumpkin seeds. This mix of nuts contains high amounts of

The introduction of a multi-vitamin tablet would increase a soldier's vitamin intake and would offset the nutrient deficit that is characteristic of pre-packaged foods.

Table 1: Proposed new CRP menu

Item	Calories	Protein (g)	Fat (g)	Sugars (g)	Carbo-hydrates (g)	Sodium (mg)
Crackers	150	3.3	4.5		25	140
Muesli	370	10.2	9.2		57.5	571
Tuna Sachet (unflavoured)	95	21.1	0.7	0.1	0.6	335
Sports Drink Powder	250	0	0	66	66	229
2 x Meal Sachet (variety)	262	27	12		17	N/A
Condensed Milk	143	4	3.5	25	25	40
Tomato Ketchup	19	0.2	0.5	2.6	3.6	107
M&Ms (Peanut)	253	4.6	12.9	24.9	29.6	24
50g Beef Jerky	205	17.5	12.5		5	1107
Protein Bar 1	301	25	10	5	30	160
Protein Bar 2	273	25	15	5	15	160
Mixed Nuts (175g)	1063	36	85		35	340
Dried Fruit (150g)	580	5	0	130	150	15
Coffee						
Tea						
Skim Milk Powder						
Sugar Sweetened Gum						
Sachet Table Salt 2g						
Multi Vitamin Tablet						
Totals	4378	185.3	177.8	258.6	465.7	3228

what is often referred to as ‘healthy fats’. They are all high in Testosterone building nutrients such as Iron and Magnesium.

Protein Bar 1 would be comprised primarily of Whey Protein, which is a fast digesting protein. It also contains maltodextrin, which is a mid-range digesting carbohydrate, and would be ideal to consume in a time where recovery is most important, such as after the conduct of fire and movement. Protein Bar 2 is made of Casein, which is a much slower digesting protein. Importantly, it holds a higher fat content to further slow digestion. The optimal time to consume this item would be prior to sleep or during a low energy activity such as piquets.

Beef Jerky has been added due to its light weight and high ratio of protein, fat and sodium. The introduction of a multi-vitamin tablet would increase a soldier’s vitamin intake and would offset the nutrient deficit that is characteristic of pre-packaged foods. The coffee and tea—or what is colloquially known as ‘brew gear’—has been halved. This is due to the fact that indicative use of this portion of the CRP suggests that at least half of the current ‘brew gear’ is discarded.

Over 130g of the total sugar is fructose, which comes primarily from the dried fruit. The benefit of this type of sugar is that, although fast digesting, it will not spike insulin levels like dextrose, glucose and sucrose.

If the changes to the CRP menu proposed in Table 1 were adopted, the nutritional value of the daily diet of the average soldier consuming CRP would increase from 299g of carbohydrates to 465g, 34.5g of protein to 185.5g, 35g of fat to 177.8g, more than double the salt from 1500mg to 3228mg, and increase the total calories from about 1500 to 4378. This represents a significant enhancement to the nutritional value of the CRP. Moreover, an additional benefit of the proposed changes would be a reduction in the weight of the CRP by half to approximately 1kg. This is increasingly important due to the increased armour, communication equipment and weapon systems a soldier is required to carry on patrol.

The Army should investigate employing qualified nutritionists who specialise in advising professional athletes on their diets to educate soldiers and officers...

ADDITIONAL REQUIREMENTS

Fundamental to fully exploiting the nutritional enhancements to the CRP proposed in this paper is educating soldiers about basic nutrition, both in the barracks and field environments. In many cases, the key to optimising the value of what one is eating is knowing when to eat it. The Army should investigate employing qualified

nutritionists who specialise in advising professional athletes on their diets to educate soldiers and officers as to how to optimise their nutrition and, therefore, optimising their health and output capacity in the barracks and field environments. Ideally, this training would be delivered during foundation courses at institutions such as the Army Recruit Training Centre and the Royal Military College. Nutritional awareness continuation training could then be delivered by qualified nutritionists at unit/formation level annually as part of the suite of annual mandatory briefs.

CONCLUSION

The central theme of the CACI is that the capacity of Australian Army soldiers to engage in close combat must be both 'optimised' and 'sustainable'. Fundamental to achieving this is providing an optimal source of nutrition for our soldiers operating and fighting in the complex contemporary environment. The key means of delivering this sustenance is via the CRP. The evidence presented in this article outlines significant flaws in the current approach to providing nutrition that will not set up our soldiers for success when engaging in close combat. With some adjustment to the composition of the Australian Army's CRP, and the introduction of an education program to empower our soldiers to maximise the value of their nutrition in the field and barracks environment, our Army can ensure that it is optimising the capacity of its soldiers to fight and win on the battlefield.

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Private Cameron Robison enlisted into the Army Reserve on 29 June 2004. He was allocated to RAInf and was posted to Alpha Company 2nd/17th Battalion, Royal New South Wales Regiment. He completed his recruit course at the Army Recruit Training Centre and the Infantry Initial Employment Training (IET) during 2004 and 2005 respectively. As a Reservist, Private Robison participated in Operation DELUGE and Operation TESTAMENT. Private Robison transferred to the Regular Army and was allocated to the 2nd Battalion, The Royal Australian Regiment in 2008. He is currently deployed with Alpha Company on Operation ASTUTE.

Private Robison completed his Certificates 3 and 4 in Fitness through the Australian Institute of Fitness. Following his completion of these qualifications, Private Robison established and now manages a successful business called 'Body Blast Fitness Training'.

MILITARY HISTORY

THE HISTORY OF THE SOLDIER'S LOAD

LIEUTENANT ROB ORR

ABSTRACT

From the loads carried by the armies of antiquity to today's modern forces, this article explores and critically analyses soldier load carriage over two millennia. Historical misconceptions appearing in some military documents and literature regarding the context and weight of the soldier's load are also discussed. The author looks at how, even with changes in logistic practices, technology and the very nature of warfare, the soldier is still a beast of burden and suggests that relying on improved load carriage logistical aides and changes to equipment may not be the answer to this age-old problem.

INTRODUCTION

Throughout history there has been a complex relationship between the loads carried by soldiers and the requirements of their mission. Today, as in the distant past and the foreseeable future, the soldier is required to carry arms, ammunition, clothing and sustenance—the basic tools of their trade. In addition, the diversity and complexity of military operations often requires the soldier to carry mission-specific equipment and move, on foot, through various climates and terrains for long and continuous periods. While the equipment is

often crucial for mission success and survival, its weight, when in excess, has led to combat deaths.¹

The history of soldier load carriage provides the means of learning lessons from the past in order to avoid making the same mistakes in the future. This premise only holds true, however, if the history, and its interpretation, is accurate. A detailed review of the loads carried by soldiers throughout history identified several misconceptions found in both unclassified² and classified papers and journal articles—misconceptions which create and perpetuate erroneous beliefs regarding the soldier's load. These misconceptions, due possibly to the restrictions of article size and focus, include: the use of animals and carts to carry soldiers' loads; that soldiers' loads did not exceed 15 kilograms until the last 200 years; the loads carried by soldiers in Somalia and Grenada; and that modern soldiers' loads have increased in recent years.

The aim of this article is to provide an accurate and detailed history of the soldier's load to correct and prevent misconceptions by examining the context in which these loads were carried and thereby allow historical lessons to guide positive changes to load carriage practices.

CONSIDERATIONS WHEN REVIEWING LOADS

Before reviewing the soldier's load, several considerations need to be taken into account. First, these loads are the estimated 'dry' loads and may change in a given environment. In the trenches of the Great War, for example, the 3.2 kilogram British coat could absorb up to an additional 9 kilograms of water.³ British soldiers, who would start a march with 27.5 kilograms, could well finish with loads in excess of 43.5 kilograms when water saturation and mud were taken into account.⁴ The American overcoat in the Second World War would likewise increase in weight by around 3.6 kilograms.⁵

In most cases the loads carried by soldiers described in this article are based on an average. This may dilute the true appreciation of loads carried by individual soldiers, most notably those who had specific roles within their unit; a machine gunner or signal operator, for example, would usually carry a load noticeably heavier than a rifleman.⁶

LOADS CARRIED BY PRE-MUSKET SOLDIERS (700 BC – 1651 AD)

The first iron army was created by the Assyrian King, Sargon II in the seventh century BC.⁷ Dressed in iron scale armour, helmet, iron shinned boots, shield, sword and spear, the Assyrian spearman was thought to bear a load of between 27.5 and 36.5 kilograms.⁸

A century later, the Greek infantry soldier, the Hoplite, was thought to carry a load of between 22.5 and 32 kilograms when dressed in a complete *panoply* of breastplate, greaves, helmet, shield, spear and sword.⁹ For the Hoplites, who themselves may not have weighed more than 68 kilograms, this equated to a load of between 33–47 per cent of their body weight.¹⁰

The heavy Hoplite shield (6–8 kilograms) was often discarded when fleeing the battlefield, the action attributed to the saying of Spartan mothers: 'Come back with your shield or upon it.'¹¹ The Hoplites may not have carried this complete load while on the march as each soldier had one or more slaves.¹² These *skeuphoroi*, or baggage carriers, carried the soldier's provisions, bedding and personal kit and, when no threat was imminent, may have carried the soldier's shield, handing it to the soldier mere moments prior to a battle.¹³

In preparation for his war against the Greek Hoplites and the Persians, King Philip II of Macedon aimed to increase the mobility and speed of his army. Philip gave orders that all soldiers were to carry their own equipment and that wheeled vehicles were not to be used, replacing them with pack mule and horse—an order later echoed by his son Alexander.¹⁴ This action reduced the number of camp followers by as much as two thirds, consequently decreasing the army's logistical load and increased its march speed.¹⁵ The result was a Macedonian soldier who was a beast of burden, carrying 13.5 kilograms of grain (ten days' rations), plus their 22.5 kilograms of battle equipment and arms: a total load of 36 kilograms.¹⁶

Fortunately, in an attempt to reduce costs by enabling more Macedonian soldiers with the ability to purchase their own equipment, the more expensive components of the Hoplite armour were replaced with cheaper composite materials or simply abandoned altogether, lightening the soldier's load.¹⁷ The Macedonia spear, or *sarissa*, which was longer and heavier than its Hoplite counterpart, was introduced.¹⁸ Weighing between 5.5 and 7.5 kilograms depending on length, and being heavier than the 0.1 kilogram Hoplite spear,¹⁹ the *sarissa* was used as both an offensive and defensive weapon and allowed for the abandonment of the armoured breastplate.²⁰ Thus, while the weapon load increased, armour load decreased.

For the Macedonian soldier to effectively carry this load and yet still be able to function in combat, they needed to be physically conditioned. This was accomplished by vigorous battle hardening drills, which included marching 55–64 kilometres per day while carrying armour, weapons, equipment and food at a pace of

While the equipment is often crucial for mission success and survival, its weight, when in excess, has led to combat deaths.

8 kilometres per hour.²¹ The combined results of these changes was the creation of the fastest army the world had ever seen, with the entire army capable of covering 21 kilometres a day carrying a load of between 27.5 and 36.5 kilograms.²²

In around 100 BC, following the King Philip II trend, Gaius Marius introduced sweeping reforms to the Roman army, which included the reduction of pack animals in the baggage train to one mule per fifty soldiers.²³ With the maximum load a mule can carry over distance being around 113.5 kilograms, each soldier could only unload around 2.5 kilograms onto the mule.²⁴ This was of course, under the supposition that the mule was not carrying its own food or any additional supplies. The reform, aimed at increasing the logistical efficiency of the Roman army, led to the labelling of the Roman infantryman as *Muli Mariani*, or 'Marius mules'.²⁵

Now carrying their personal possessions and some food and drink, the Roman soldier hauled a load of up to 45.5 kilograms.²⁶ N V Lothian argues that the load was around 22.5 kilograms, with Legionnaires rarely carrying these loads themselves.²⁷ To support his argument,

For the Macedonian soldier to effectively carry this load and yet still be able to function in combat, they needed to be physically conditioned.

Lothian cites depictions of the Roman army in sculptures and reliefs. Depictions of carts hauled by beasts, carrying shields and warlike equipment, for example, were used to argue that the beasts may have carried these stores for the Roman Legionnaires. Alternatively, these beasts may have been hauling stores and spare equipment, needed when marching into foreign lands where future stores were in doubt or, as probable in the Arch of Severus relief, the baggage trains may have been hauling loot from captured cities along with Legionnaire equipment. Furthermore, a review by the author of Trajan's Column and the Column of Marcus Aurelius in Rome revealed 'Roman Legionnaires on the march' dressed in armour and carrying arms. Further supporting the view that these baggage trains did little to reduce the Legionnaire's load, Beth F Scott states that even with a baggage train of 520 pack animals, the Roman soldier still carried a load of up to 38.5 kilograms.²⁸

With regard to human baggage carriers, Lothian labels a fragment at the Louvre as 'Calo bearing his master's load',²⁹ yet inspection of this fragment shows the Roman soldier likewise carrying a slung sack (as well as his own shield). Was the slave carrying his master's load or perhaps his own food and water supplies?

Samuel Marshall, while quoting a Legionnaire's load of 36.5 kilograms, cites Cole who suggests a lighter load based on operational requirements. Cole, using terms similar to those in use by the US military today, describes a 'road marching load' of 26 kilograms; an 'approach marching load' of 20 kilograms; and a 'tactical combat

load, with which the Legionnaires could engage the enemy in physical contact for an entire day, of 15 kilograms.³⁰

While there are understandable variations in the estimations of the Roman Legionnaire's load, most references agree with a load of around 36.5 kilograms.³¹ Based on specimen samples from Pompeii and Herculaneum, which estimate the average Roman male body weight of the era as 66 kilograms, the average Roman soldier would have carried a load of around 55 per cent of their body weight.³²

As the Roman Legionnaires could be expected to march up to 32 kilometres per day and then fortify their night camp, they needed to be physically conditioned for such a task.³³ To prepare the Roman soldier to carry such loads and march long distances, Flavius Vegetius, in his work *Epitoma rei militaris* (Epitome of Military Science), recommended that recruits carry a load of up to 60 Roman pounds (19.6 kilograms), route marching at the 'military step' of 32 kilometres for five hours (a pace of 6.4 kilometres per hour) or at the 'full step' of 39 kilometres in the same time (a pace of 7.7 kilometres per hour).³⁴ This load did not include the soldier's clothing and weapons, and was designed to condition the soldier to carry rations as well as arms during campaigns.³⁵

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Defeat of the Roman Legion at the Battle of Adrianople in 378 AD by the Gothic rebels saw a re-emergence of cavalry dominance on the battlefield.³⁶ Where the Roman infantry failed, the Roman cavalry became the answer to combat the dual threat of fast mounted assaults and missile weapons.³⁷ Thus the horse archer replaced the Legionnaire as the principal soldier of the Eastern Roman (or Byzantine) Empire.³⁸ However, the infantry soldier did still serve. The Byzantine *scutati*, or heavy infantrymen, wore a mail shirt or armour weighing 16 kilograms, with or without greaves and gauntlets, and carried a spear or lance, sword and spiked axe—an approximate total load of between 19.5 and 36.5 kilograms.³⁹ Following the Roman army trend, each soldier was required to carry their own equipment of warcraft, personal necessities and several days' food.⁴⁰ Although baggage trains did still accompany the army, they carried the equipment and supplies needed for sustained operations and siege craft and did little to reduce the individual soldier's load.⁴¹ With the infantry unable to provide the rapid shock action of the cavalry, infantry forces and marching soldiers became a subsidiary arm and the armoured mounted knight became the centre point on the battlefield.⁴²

It was the longbow, crossbow and invention of powdered weapons that were to lead to the return of the foot soldier.⁴³ Initially, these missile-based infantry could not withstand the shock attack of mounted cavalry, thus pikemen were used to

provide protection, especially during the vulnerable period needed to rearm.⁴⁴ Also paving the way for a return of the infantry armies was the cheaper cost to train and arm a soldier with a pike compared to that of a mounted knight.⁴⁵ Hence, it was not only the advancing weaponry but the sheer numbers of infantry soldiers that led to the re-emergence of the infantry as the dominant land force.⁴⁶

During the English Civil War (1638–51), the English pikemen took to the field. Typically dressed in Corselet armour,⁴⁷ which together with helmets and leg guards weighed around 11 kilograms, these foot soldiers carried a knapsack containing food and spare clothing that brought their carried load to between 22.5 to 27.5 kilograms—this excluded the weight of their pike and other melee weapons (sword or axe).⁴⁸ With the shorter seven foot pike (as opposed to the traditional 16.5–18 foot pike⁴⁹) weighing between 1.8 and 2.3 kilograms, the total load carried by the pikemen is considered to be at least 29.5 kilograms.⁵⁰

It was the longbow, crossbow and invention of powdered weapons that were to lead to the return of the foot soldier.

LOADS CARRIED BY MUSKETEERS (1651–1865 AD)

By the start of the Spanish War of Succession (1702–14), the pike was replaced by Flintlock muskets and socket bayonets.⁵¹ Armed with muskets, shot and powder, the British Redcoats carried a load of around 36.5 kilograms through the American War of Independence and into the French Revolutionary wars.⁵² During the Napoleonic wars, the Redcoat's loads fluctuated between 22.5 and 36.5 kilograms with the load at the landmark Battle of Waterloo in 1815 being between 27.5 and 32 kilograms.⁵³

The Redcoat's counterparts, the French, carried a slightly lighter load of around 27.5 kilograms during the French Revolutionary wars and similar loads into the Napoleonic wars, before loads dropped slightly to around 25 kilograms during the decisive Battle of Waterloo.⁵⁴ Under the command of Napoleon, French troops routinely marched 16–43 kilometres per day and were expected to be fit for fighting at the end of the march.⁵⁵ Marshal Davoust, a French Marshal under Napoleon, generally expected his men to march in column at a pace of 4 kilometres per hour for up to ten hours a day.⁵⁶ In a sixteen-day period, Marshal Davoust marched his soldiers 280 kilometres in order to engage the Prussians.⁵⁷ Likewise, to win the Battle of Dresden, Napoleon reportedly marched his army a staggering 144 kilometres in 72 hours.⁵⁸ With these long continuous marches, it is of little wonder that the French soldiers quipped that 'Our emperor makes war not with our arms but with our legs.'⁵⁹

The British loads during the Crimean War (1853–56) remained similar to those at Waterloo, ranging from 26–31 kilograms.⁶⁰ The French loads, however, increased to between 33–36.5 kilograms.⁶¹ A few years later, in 1861, the American Civil War began. Armed with shoulder arms, sixty rounds of ammunition, a piece of shelter tent and 7–11.5 kilograms in their knapsack, the soldiers of the Union Army of the Potomac carried a total load of between 20.5 and 22.5 kilograms.⁶² In addition to this load, each eight-man section also had to carry additional stores of picks, kettle, axes and various other tools.⁶³ However Union Army loads were not universal; the 24th Wisconsin Volunteer Infantry Regiment of the Union Army's Middle Military Division, for example, were noted as carrying around 22.5 kilograms in their knapsacks plus their 4.5 kilogram musket: a total load of around 27.5 kilograms.⁶⁴ Union Army soldiers were known to discard equipment throughout the conflict in order to lighten their loads.⁶⁵

...French soldiers quipped that 'Our emperor makes war not with our arms but with our legs.'

The load of the Confederate army's infantry soldier varied greatly, ranging between 13.5–36.5 kilograms.⁶⁶ The 21st Virginia Infantry F Company, for example, were claimed to carry loads of 13.5–18 kilograms, and in some cases up to 22.5 kilograms, in their knapsacks.⁶⁷ However, limited supplies and laxer regulations meant that the Confederate soldier often carried less weight than his Union counterpart, and their 7–11.5 kilogram knapsacks vanished early in the war.⁶⁸ With the average weight of the American soldier in the Civil War being around 62 kilograms⁶⁹ the average Confederate soldier's load ranged between 22–59 per cent of their body weight, while the Union Army soldier's load ranged between 33–44 per cent of their body weight.

LOADS CARRIED THROUGH THE WORLD WARS (1914 – 1945 AD)

In the Great War, heavy loading reduced the marching ability of the average soldier and was claimed to have altered the tactics of war.⁷⁰ The Battles of Cambrai and Amiens provide examples in which forward movement, limited by physical exertion, was reduced to 9–12 kilometres per day.⁷¹

During this conflict, German troops carried loads ranging 25–45.5 kilograms, although a load of around 32 kilograms was considered average.⁷² Hauling this load, the German Fusiliers were said to have marched for twenty-seven consecutive days, covering a distance of 656 kilometres, averaging 24 kilometres per day.⁷³ French soldiers, meanwhile, carried heavier loads of up to 38.5 kilograms,⁷⁴ with the French 6th Army once marching 70 kilometres with only a single three-hour halt. During

their North African campaign, the specialised French Foreign Legion were required to carry loads even greater, around 45.5 kilograms, for up to 40 kilometres per day.⁷⁵ Both of these forces carried not only heavy loads but had to traverse substantial distances under this weight.

The loads carried by American troops were claimed to leave soldiers exhausted during the short distance assaults between trenches, even before contact with the enemy.⁷⁶ With the average American soldier weighing around 64.5 kilograms, and carrying a load between 22 and 32 kilograms, these soldiers carried a load between 34–50 per cent of their body weight.⁷⁷ The British soldiers in 1914 started off with similar loads (20.5–27 kilograms)⁷⁸ but soon found their loads increasing to 30–40 kilograms.⁷⁹ With British recruits of the era weighing an average of 60 kilograms,⁸⁰ these soldiers were carrying a load equal to around 50–57.5 per cent of their body weight.

The Australians and Canadians carried equivalent loads. Moving to Quinn's Post, the Australian soldiers at Gallipoli carried a load of 33.5 kilograms while the Canadian soldiers carried a load of 30–36 kilograms.⁸¹ For the Australian soldiers of the 6th Australian Infantry Division assaulting Mont St Quentin, loads were a little lighter, ranging between an estimated 27 and 28.5 kilograms.⁸²

Little changed leading into the Second World War. During the D-Day landings at Omaha Beach the American troops landed with a load of around 27.5–41 kilograms—a load attributed with causing deaths in the water.⁸³ The Canadian and British soldiers carried similar loads.⁸⁴ Even if the soldiers made it to the beach, they faced another problem: getting across the beach quickly and under intense enemy fire. Again, weight was against the soldiers as 'The GIs were so laden with ammunition and equipment that every step was a strain.'⁸⁵ With an average body weight of 65.5 kilograms,⁸⁶ the American soldier carried a load between 41.6–62.5 per cent of their body weight, while charging through chest deep water and then across sands, all while exposed to heavy enemy fire.

On the Eastern Front, Russian soldiers carried loads of 28–35.5 kilograms, while in the North African desert, Australian troops carried loads of between 22 and 32 kilograms into the battles at Bardia and El Alamein (1941–42).⁸⁷ In the Pacific theatre, the loads carried by Australian soldiers were similar: 20.5–41 kilograms in Papua New Guinea (1942) and up to 37.5 kilograms in Borneo (1945).⁸⁸ Operating behind the lines in Burma, the British 'Chindits' likewise carried loads of between 32 to 41 kilograms.⁸⁹

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The opposing forces in the Pacific theatre, the Japanese soldiers, also carried heavy loads, ranging from the standard 28 kilograms up to 56 kilograms for machine gun units.⁹⁰ With the average Japanese soldier weighing around 53 kilograms this equated to a load of between 52 per cent and a staggering 105 per cent of their body weight.⁹¹

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Of interest, after viewing a Canadian Exercise conducted in May 1942, Field Marshal Montgomery, in a letter to General Crerar (a Canadian General), recommended a load that would not have an impact on the soldier's fighting ability—a maximum 22.5 kilograms.⁹²

For the Canadians, with an average body weight below 72 kilograms,⁹³ this would suggest a load of around 31 per cent of their body weight. The Canadians were to carry precisely that recommended load, a maximum of 22.5 kilograms, into the Korean War in 1950.⁹⁴

LOADS CARRIED THROUGH MODERN CONFLICTS (1950 AD – PRESENT)

When, in the Korean War, the American soldier's load rose from 18 to 22.5 kilograms, the straggler effect was noticed, with soldiers falling behind the main column of march. Infantry troops arrived at their march destination in a state of fatigue, with men complaining that they straggled as a result of carrying things they never used in combat.⁹⁵ Even so, the loads kept climbing, with claims that American soldiers had to carry 37.5 kilograms at a speed of around 4 kilometres per hour (during the day when on roads) for a distance of 19–32 kilometres per day.⁹⁶ Moreover, in December 1950, the American 7th Marines of the 1st Battalion were reportedly required to carry loads of around 54.5 kilograms through the snows and steep slopes of Toktong Ridge.⁹⁷

While the South Koreans of the Republic of Korea's army carried heavy loads of over 36.5 kilograms,⁹⁸ the North Korean People's Army (NKPA) and the Chinese Communist Forces (CCF) carried lighter loads of around 18.5 kilograms.⁹⁹ With these lighter loads the NKPA and CCF were able to move faster and further per day than their American counterparts—4.8 kilometres per hour for 35–40 kilometres per day. There was an exception to the lighter Chinese loads, with the Chinese People's Volunteers Force (CPVF) having to carry loads of around 27.5–32 kilograms when their logistic support let them down.¹⁰⁰

During the Vietnam War (1959–75), just as the Roman Legionnaires had adopted the term 'Marius Mules', the American soldiers adopted the term 'grunt'.¹⁰¹

The typical load for the American infantry soldier patrolling through the jungles of Vietnam was 27.5–32 kilograms.¹⁰² For the Marines, loads were in excess of 22.5 kilograms and more likely 36.5 to 45.5 kilograms.¹⁰³ Australian troops generally carried heavier loads of 32–32.5 kilograms and in some cases more.¹⁰⁴ Several members from the 8th Battalion, Royal Australian Regiment (RAR) weighed their packs and found they carried loads of between 36.5 and 54 kilograms.¹⁰⁵ Interestingly, even when their mission changed from reconnaissance to pacification, and the content of the loads changed, the overall load weight remained the same.¹⁰⁶ As such, Australian soldiers were constantly taking measures to lighten their loads by removing non-essential stores.¹⁰⁷ These loads were similar for the soldiers of the 4th Battalion, RAR, who likewise carried loads of 30–40 kilograms for a rifleman and up to 47.5–56 kilograms for the radio operators.¹⁰⁸

Australian soldiers were constantly taking measures to lighten their loads by removing non-essential stores.

The native Viet Cong were not so encumbered. Unlike the heavy loads carried by soldiers from foreign forces, the Viet Cong reportedly carried noticeably lighter loads of around 12 kilograms.¹⁰⁹ These loads are perhaps indicative of the advantages of fighting on 'own' soil.

During the Falklands conflict in 1982, the British infantry and Royal Marines carried loads between 32–36.5 kilograms in Fighting Order (essential fighting stores) and 45.5–54.5 kilograms in Marching Order (short duration sustainment stores together with fighting stores).¹¹⁰ In a well known 'yomp', the 45 Royal Commando Marines, carrying a load between 54.5–66 kilograms,¹¹¹ marched a distance of 129 kilometres, crossing terrain that ranged from marshland to rocky scree, in a period of just three days.¹¹²

A year later, carrying loads of up to 54.5 kilograms, American troops in Grenada landed; for Operation URGENT FURY.¹¹³ One of the assaulting soldiers described the assault on the airhead: "There were all those guys sitting on the side of the road with IV tubes in them. There's no way the guys could [have gone on]".¹¹⁴ During the same operation, American Army Rangers parachuted onto the runway at Salinas airfield, carrying even heavier loads of around 76 kilograms.¹¹⁵

In Somalia, during Operation UNITED SHIELD, American Army infantry soldiers came ashore with a load of around 49.5 kilograms. Weighing an average of 75 kilograms, these soldiers were carrying a load of around 70 per cent of their body weight.¹¹⁶

Little has changed in the more recent conflicts. In East Timor, on Operation CITADEL, Australian soldiers carried loads in excess of 45 kilograms, with gunners

and signallers carrying loads in excess of 50 kilograms. During Operation DESERT SHIELD and DESERT STORM, American soldiers carried loads up to 45.5 kilograms and today continue to carry loads between 45.5–54.5 kilograms in Afghanistan and Iraq, and ‘march’ around 10–15 kilometres per day.¹¹⁷

A recent comprehensive study of the 82nd Airborne Division, on Operation ENDURING FREEDOM III in Afghanistan, found that the soldiers carried a ‘fighting load’ of 29 kilograms, an ‘approach march load’ of 43.5 kilograms, and an ‘emergence approach march load’ of 57.5 kilograms.¹¹⁸ With the average weight of the soldiers in this study being 79.5 kilograms, this equated to loads of 36 per cent, 55 per cent and 73 per cent of body weight respectively.

ENCAPSULATION

As encapsulated in Figure 1, the soldier's load, for most but not all countries, appears to have remained generally unchanged for over two millennia, until increasing noticeably after the Vietnam War. It should be noted, however, that several of these later load measurements may be somewhat misleading. The loads found for Grenada and Somalia, for example, are for forces coming ashore and not necessarily for the duration of the campaign. These loads are therefore more than likely ‘emergency approach march loads’, which is defined by the US Army Manual FM 21-18 *Foot Marches* as loads carried by soldiers acting as porters for several days over distances of 20 kilometres a day.¹¹⁹

Furthermore, in the context of relative loads, it can be seen that the Roman loads of around 36.5 kilograms or 55 per cent of their body weight is very similar to the ‘approach march loads’ of the 82nd Airborne Division in Afghanistan, where the soldiers carried loads of 43.5 kilograms or 55 per cent of their body weight. This example shows how absolute loads may have increased in recent times, while the relative loads carried by the soldier may have in fact stayed the same.

Finally, although logistical aides (like carts, mules, motorised vehicles and aircraft) have changed through history, the soldier's load has not reduced noticeably. A plausible reason for this lack of load reduction may be due to the fact that these logistical aides did little to unload the soldier in the first instance and were used primarily to carry other logistical stores.

Addressing the aforementioned misconceptions, it can be seen that soldiers' loads may have indeed exceeded 15 kilograms prior to the last 200 years; absolute

...the soldier's load, for most but not all countries, appears to have remained generally unchanged for over two millennia...

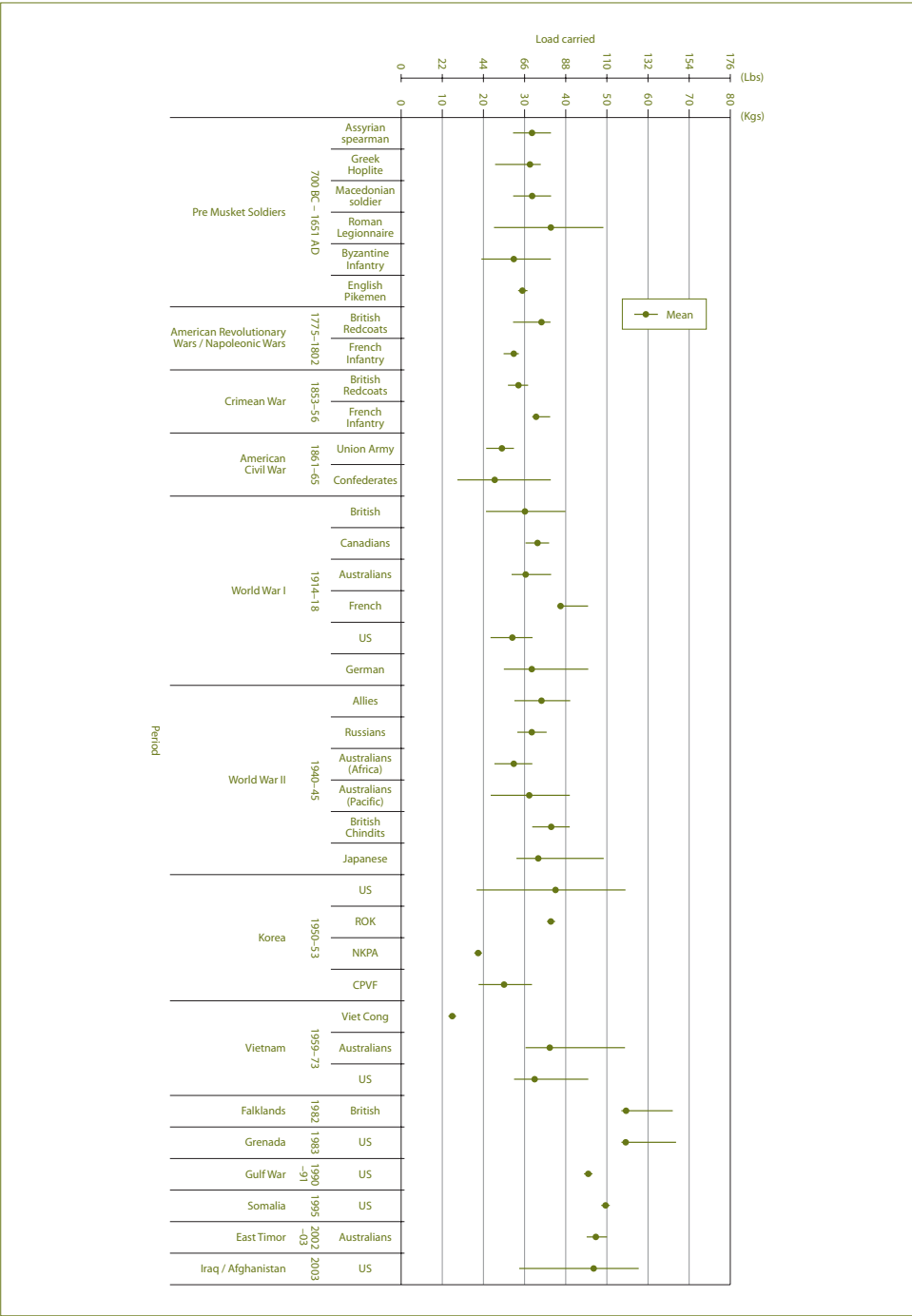


Figure 1. An encapsulation of the means and ranges of loads carried by soldiers through history as found in this article.

loads may have increased recently, while some relative loads are similar to those carried by soldiers two millennia ago; animals and carts, which may have been used extensively by the armies of antiquity, may not have reduced the soldier's load noticeably; and the presented loads carried on some recent operations (for example, Somalia and Grenada) may have not been the loads carried for the duration of the campaign.

CONCLUSION

The soldier's load has not reduced noticeably in the last two millennia. Where the soldier's protective and lethality equipment and sustainment stores have changed through necessity and technology, the soldier's load has not reduced. Where logistical and technological transport aides have changed over the last two millennia, the soldier's load has not reduced. Even where the nature of warfare has changed, from converging phalanxes and trench warfare to today's complex battlefield, the soldier's load has not reduced. History therefore suggests that relying on improved load carriage logistical aides and changes to equipment may not be the answer to this age-old problem, and that perhaps the military answer to the problem of the soldier's load may lie elsewhere; for example, within the mindset and decision-making process of military commanders.

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MILITARY HISTORY

OPERATION LAVARACK

PHUOC TUY PROVINCE, VIETNAM, 1969

LEN JOHNSON

ABSTRACT

Operation LAVARACK was an ambushing and reconnaissance-in-force operation conducted by the 6th Battalion, The Royal Australian Regiment – New Zealand (Anzac) in Area of Operations (AO) Vincent in Phuoc Tuy Province from 30 May to 1 July 1969. During thirty-two days of continuous patrolling and ambushing, 6RAR-NZ defeated in battle two main force regiments and a district company, captured and destroyed hundreds of enemy bunkers, disrupted the Viet Cong administrative system in Phuoc Tuy Province by denying the enemy his vital lines of communication and supply, and irreparably damaged the military and political position of the Viet Cong in Phuoc Tuy Province.

INTRODUCTION

In June 2009, at a gathering of Vietnam veterans at the Australian War Memorial, a senior military historian described Operation LAVARACK as a ‘spectacularly effective, milestone operation.’¹ Apart from this one public recognition, Operation LAVARACK’s achievements have been lost to history. During the past forty years Australian military operations in Vietnam have been characterised by Long Tan, Coral, Balmoral and Binh Ba. These were striking successes, deserving

of distinction, but their dramatic nature has distracted historical attention from the significant military successes of Operation LAVARACK. The aim of this article is to correct this historical omission.

There are many convincing reasons why Operation LAVARACK should be recognised as a uniquely successful operation. During thirty-two days of continuous ambushing and patrolling, 6 Royal Australian Regiment – New Zealand (Anzac) Battalion (6RAR-NZ) attacked and defeated 33 North Vietnamese Army Regiment in a series of continuous company actions, attacked and ambushed 274 Viet Cong Regiment on three occasions, and drove C41 Chau Duc Viet Cong District Company from its ‘home base’ bunkers. On conclusion of Operation LAVARACK on 1 July, 6RAR-NZ soldiers had been involved in eighty-five contacts with the enemy: 102 North Vietnamese Army and Viet Cong had been killed in action and at least twenty-two wounded, ten had been taken prisoner and one surrendered. Seventy-one weapons and 330 bunkers had been captured, and 202 destroyed.² The 6RAR-NZ losses were three killed in action and twenty-nine wounded.

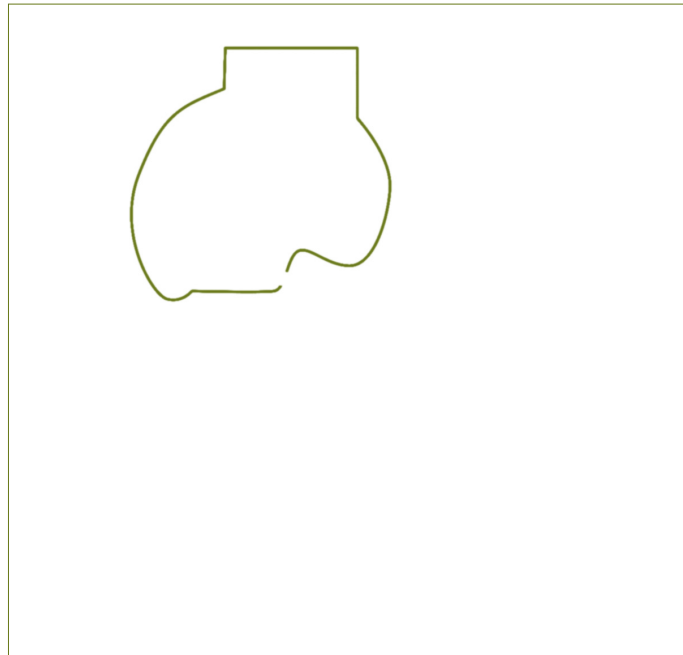
An additional unexpected outcome of Operation LAVARACK was that it brought about a severe disruption of the Viet Cong administrative system in Phuoc Tuy Province. Supply points were destroyed, vital lines of communication were denied, the logistics system was irreparably damaged, and rear services groups were unable to carry out their objective—support of main force Viet Cong units in Phuoc Tuy, Bien Hoa and Long Khanh Provinces.

These were remarkable results. They had a disastrous effect on Viet Cong military and political activities in Phuoc Tuy Province.

Operation LAVARACK
was an ambushing and
reconnaissance-in-force
operation...

THE PLAN

Operation LAVARACK was an ambushing and reconnaissance-in-force operation conducted by 6RAR-NZ³ in Area of Operations (AO) Vincent in Phuoc Tuy Province from 30 May to 1 July 1969 (Map 1).⁴ The mission was ‘to ambush major Viet Cong routes’ and the plan was based on a captured map which showed their general directions. The commanding officer of 6RAR-NZ, Lieutenant Colonel Butler, placed all five rifle companies on these routes, and positioned Fire Support Patrol Base (FSPB) Virginia in the centre of AO Vincent where it could provide artillery fire support over the whole of the area of operations (Map 2).⁵ AO Vincent was unusually large when compared with previous task force operations, resulting in the five rifle companies being widely dispersed throughout western and northern Phuoc Tuy Province. This broad spread of companies was of concern to Brigadier Pearson,



Map 1. Area of Operations (AO) Vincent.

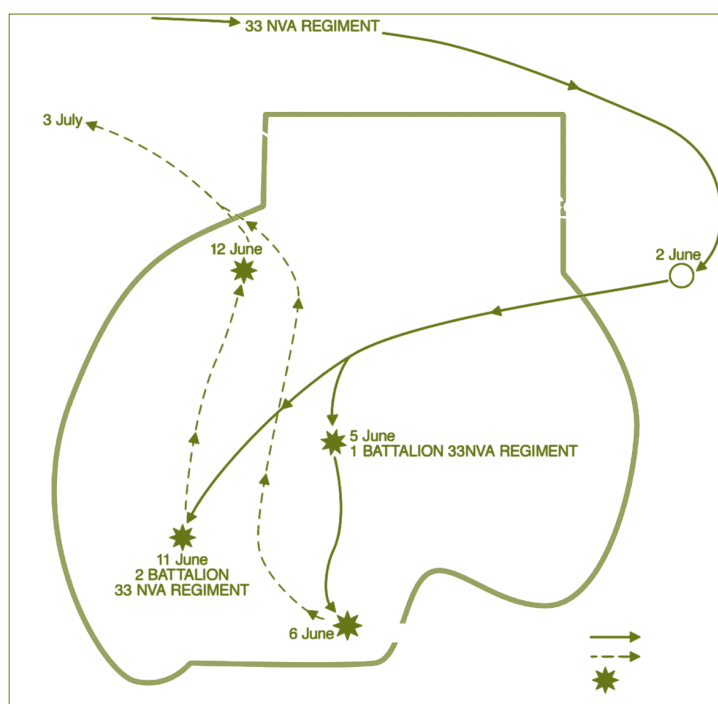


Map 2. 6RAR-NZ(Anzac) Battalion Deployment.

the commander of 1 Australian Task Force (1ATF), who thought separation would minimise mutual support. Nevertheless, it was precisely appropriate to the mission—to cover all enemy routes at the same time. It was an unexpected tactic and achieved surprise.

THE ENEMY

During Operation LAVARACK there were four Viet Cong military groups that could be expected to operate against 6RAR-NZ. The first was 33 NVA Regiment, a main force unit of 1130 North Vietnamese regulars organised into three battalions and eight support companies: 82mm mortar, 12.7mm heavy machine gun, 75mm recoil-less rifle, communications, transport, medical, rear services and engineer companies. 33 NVA Regiment had been in Phuoc Tuy Province only once prior to Operation LAVARACK; on 12 May 1969 it had briefly crossed the northern boundary without any military success. In late May 1969, aerial sensors had detected its regimental headquarters and two battalions west of the American base Blackhorse in Long Khanh Province (Map 3), and a third battalion near the Viet Cong logistics centre in Nui May Tao (Map 1).



Map 3. Area of Operations (AO) Vincent, 33 NVA Regiment - 274 VC Regiment.

The second main force unit was 274 VC Regiment, about 900 strong. In May 1969 its headquarters was in the Hat Dich area in Bien Hoa Province, one of its battalions was identified near the Binh Son Rubber Plantation in Long Khanh Province, and the remainder was in a 'home base' about ten kilometres west of Blackhorse. The third enemy unit was D440 Local Force Battalion of 200 guerrillas dispersed in bunkers, tunnels and hides along Route 2 in Phuoc Tuy Province; and the fourth was C41 Chau Duc District Company, about sixty strong and known to be in a 'home base' north of the Nui Thi Vai and Nui Dinh Hills (Map 1).

Main force units operating in Military Region T7⁶ were supported by the Ba Long Province Rear Services Group, an administrative organisation based in Nui May Tao.⁷ In late May it was reinforced by 84 Rear Services Group. These groups were responsible for the procurement, storage, maintenance, control and delivery of all war stores and communal services such as medical, surgical and hospital treatment.

The east-west route across the north of Phuoc Tuy Province (Map 2) connected the great rear services storehouses in Nui May Tao to North Vietnamese and Viet Cong main force units in Phuoc Tuy, Bien Hoa and Long Khanh Provinces.⁸ It passed through the gap between the 199 Light Infantry Brigade (US) area of responsibility in Long Khanh Province and the 1ATF area of responsibility in Phuoc Tuy Province, and was the Viet Cong's critical ground for the efficient delivery of services essential for their military and administrative survival.

On 28 May HQ 1ATF indicated to 6RAR-NZ that the locations of most enemy forces usually found in Phuoc Tuy Province had been identified, that it was unlikely any main force units would enter Phuoc Tuy Province or concentrate for a major operation during June, and that local forces would not be a threat to 6RAR-NZ during Operation LAVARACK.⁹ Consequently, the HQ IATF assessment was that AO Vincent would be a suitable 'work-up' area for an 'introductory' operation by 6RAR-NZ. It would allow the battalion time to quietly 'settle in', become accustomed to unfamiliar conditions and test its operational drills and tactical procedures in a relatively 'safe' area. As a result, Brigadier Pearson casually told Lieutenant Colonel Butler to 'nip in there and bang about a bit'.¹⁰

During Operation LAVARACK there were four Viet Cong military groups that could be expected to operate against 6RAR-NZ.

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THE ARRIVAL OF 33 NVA REGIMENT IN AO VINCENT

However, after 6RAR-NZ had deployed into Operation LAVARACK and contrary to all previous intelligence assessments, the enemy threat changed dramatically on 2 June when 33 NVA Regiment unexpectedly entered Phuoc Tuy Province. Its headquarters and two battalions halted briefly in a concentration area on the Song Rai River where they made final preparations for a bold but high-risk advance into AO Vincent. A signals intelligence operator said:

I will never forget the tension on 2 June 1969 when we briefed the G2 Intelligence and his staff that 33 NVA Regiment had crossed the Song Rai River and was located near Binh Gia Hamlet only a few kilometres from Binh Ba.¹¹

On 3 June the leading battalion crossed Route 2. By last light on 4 June the headquarters, two battalions and at least three heavy weapons companies had occupied prepared bunker systems inside AO Vincent: one near W Company (NZ) about 4000 metres north of FSPB Virginia, the other in B Company's area of operations 5000 metres west of the village of Xa Binh Ba (Maps 2 and 3).

The reason for 33 NVA Regiment's entry was primarily political. It was responding to a Central Office for South Vietnam (COSVN) directive that main force units be involved in a series of 'cyclical high points' during the communist summer offensive from May to July by demonstrating that 'the Viet Cong were able to enter

villages at will despite the presence of 1ATF and increased pacification effort'.¹² The Viet Cong plan was for 1 Battalion 33 NVA Regiment to occupy and proselytise¹³ Xa Binh Ba in coordination with C41 Chau Duc District Company's simultaneous occupation of the village of Xa Hoa Long, and for 2 Battalion 33 NVA Regiment to secure a base for their safe withdrawal afterwards.

The subsequent defeat of 33 NVA Regiment was a significant feature of Operation LAVARACK. It was not achieved in one single dramatic action but during a series of four battles which lasted from 3 June when 33 NVA Regiment arrived in AO Vincent until 12 June when it was driven out of Phuoc Tuy Province.

The subsequent defeat of 33 NVA Regiment was a significant feature of Operation LAVARACK.

5 JUNE: SLOPE 30 – THE FIRST BATTLE WITH 33 NVA REGIMENT

The first battle began at 1030 hrs on 5 June, when patrols from W Company (NZ) found and attacked 1 Battalion 33 NVA Regiment, two heavy weapons companies and A57 Rear Services Support Company¹⁴ in a defended bunker system in thick bamboo

about 4000 metres north of FSPB Virginia (Map 3). When W Company penetrated the bunker system, the North Vietnamese reacted with an intense volume of fire from small arms, grenades, 12.7mm heavy machine guns and rocket-propelled grenades from both front and flanks. During the attack, Major Williams, the NZ company commander, engaged the enemy with artillery and two helicopter light fire teams.¹⁵ One Bushranger helicopter from the Royal Australian Air Force light fire team was shot down by 12.7mm machine gun fire; the crew were rescued by the 6RAR-NZ anti-tank platoon and the helicopter recovered.

By mid-afternoon, when still involved in a heavy firefight, Major Williams called for an airstrike but due to heavy monsoonal rain, low cloud cover, difficulties of target identification in thick bamboo, and the enemy's use of different coloured smoke to confuse air support, the Jade air controller cancelled the airstrike at 1737 hrs. At last light, badly battered by W Company's attack and by accurate and heavy artillery, mortar and light fire team support, the North Vietnamese broke contact, abandoned their bunkers and withdrew, moving southwards in darkness towards their political target, the village of Xa Binh Ba.¹⁶

6 JUNE: XA BINH BA – THE SECOND BATTLE WITH 33 NVA REGIMENT

The second of the continuum of battles was the clearance of the village of Xa Binh Ba. At first light on 6 June, delayed and disorganised by W Company's attack the night before, 1 Battalion 33 NVA Regiment entered Xa Binh Ba (Maps 3 and 4). At 0720 hrs a NVA group, on top of a house on the left of Provincial Route 2, fired a rocket-propelled grenade, disabling a Centurion tank passing Xa Binh Ba on its way along Route 2 to FSPB

Virginia. The rocket penetrated the tank's turret and wounded the loader-operator who collapsed across the breech of the main armament, preventing the tank's turret from traversing. The tank commander instinctively returned fire with bursts from his Browning machine gun, as did the craftsman on the armoured recovery vehicle about 100 metres behind. The recovery vehicle reversed out of the contact area and returned to Nui Dat. The Centurion's commander ordered his driver to accelerate north along Route 2 to the Duc Thanh Regional Force Post where the wounded operator was evacuated by helicopter. The battle for Xa Binh Ba had begun.

This first rocket was not the result of panic by a lone and nervous Viet Cong but a deliberate act by a well-trained NVA veteran who had selected with care his high firing point on the tiled roof of a house, calculated the distance to the target area

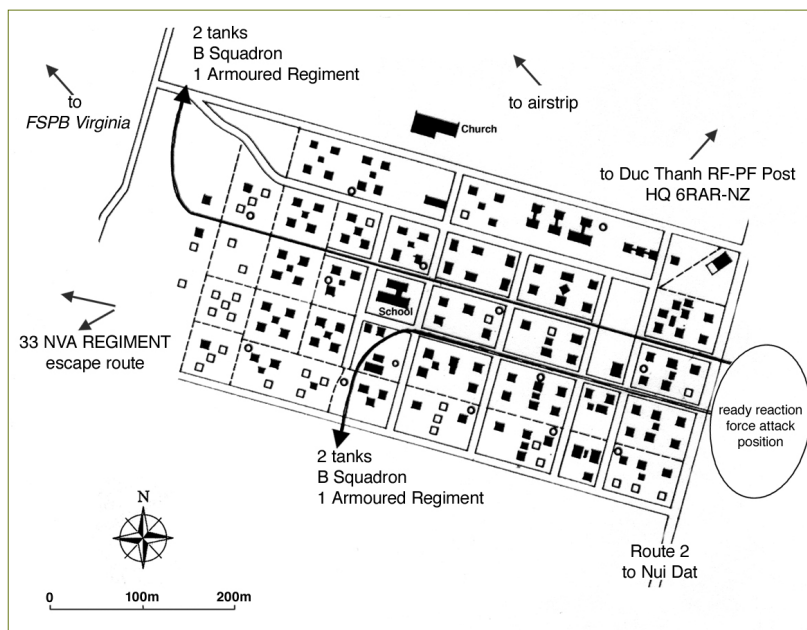
The second of the continuum of battles was the clearance of the village of Xa Binh Ba.

with precision, adjusted his sights exactly, and knew where to hit the tank with his first shot.¹⁷

Soon after 0800 hrs, Major Ngo, the District Chief, requested assistance from 1ATE, and within minutes Brigadier Pearson instructed Lieutenant Colonel Butler to use 6RAR-NZ to clear the village.¹⁸ This was a practical decision because Xa Binh Ba was inside AO Vincent, and 33 NVA Regiment's presence was an extension of 6RAR-NZ's ongoing activities for Operation LAVARACK. However, at the time, all 6RAR-NZ companies were involved in close contacts with Viet Cong so at 0820 hrs Brigadier Pearson agreed to the request that the ready reaction force be placed under command of 6RAR-NZ to deal with Xa Binh Ba.¹⁹

After the ready reaction force had arrived and the district chief was satisfied that as many villagers as possible had been evacuated, Lieutenant Colonel Butler gave the order to attack. At 1130 hrs the ready reaction force crossed Provincial Route 2 and swept into the village from east to west in two mobile columns, each with a half troop of two tanks leading, followed by infantry mounted in armoured personnel carriers (Map 4). The North Vietnamese

The North Vietnamese were not expecting a sudden and vigorous reaction to their occupation...



Map 4. Attack Routes at Binh Ba

were not expecting a sudden and vigorous reaction to their occupation and many tried to ‘break out to the south-west’, ‘were trickling out into the rubber to the south-west’ and ‘seeking shelter in the Catholic church to north’. Those who could not escape the tank assault were forced to seek protection in tunnels and bunkers beneath the village.²⁰ By 1230 hrs the battle for Xa Binh Ba had been decided. The tanks had been decisive; they had cleared two routes through the village and drastically reduced 33 NVA Regiment’s ability to respond in any organised military way.²¹

At 1300 hrs the involvement of the ready reaction force under command of 6RAR-NZ in Operation LAVARACK ended, the civilian access area around Xa Binh Ba was excised from AO Vincent and named AO Anvil, and the operation was renamed Hammer.²² During the afternoon of 6 June and on 7 June 5RAR, B Squadron 3 Cavalry Regiment and B Squadron 1 Armoured Regiment conducted sweeps and searches to clear surviving North Vietnamese out of spider holes, bunkers and tunnels around and under houses until resistance ended.²³

Two external factors affected the action at Xa Binh Ba. First, following its defeat the previous night at Slope 30, 1 Battalion 33 NVA Regiment needed time to reorganise, restructure, resupply and reconsider its plan, a delay which resulted in a late arrival at Xa Binh Ba and consequent haste in defensive preparation.

Second, the occupation of Xa Binh Ba had been coordinated with C41 Chau Duc District Company’s entry into Xa Hoa Long, a tactic which the Viet Cong hoped would split the size and aim of a 1ATF reaction force. However, this stratagem failed.

Late in the afternoon of 4 June, A Company 6RAR-NZ found C41 Chau Duc District Company’s home base in a bunker system 5000 metres west of Xa Binh Ba. To gain surprise, the company commander, Major Belt, decided on a silent attack using two platoons: one to assault, the other to give fire support from a flank. The assault platoon was detected by the Viet Cong as it crossed the start line so the platoon commander immediately launched his attack, penetrating well

The assault platoon was detected by the Viet Cong as it crossed the start line...

into the bunker system. The Viet Cong replied with automatic weapons, hand grenades, rocket-propelled grenades and small arms fire from the front and flanks and from snipers in trees. Soon both the assault and support platoons were in close contact inside the bunker system and involved in fierce firefights.

The company commander now realised that the bunker system extended over a wider and deeper area than expected and was occupied by a large enemy force. Failing light and monsoonal rain made identification of enemy targets difficult so Major Belt called for close artillery fire support to destroy the bunkers, and withdrew

the assault platoon by fire and movement while under attack from three Viet Cong groups firing automatic weapons. Battered by the company attack and artillery fire, the C41 Chau Duc District Company withdrew under the cover of darkness, carrying their casualties and abandoning their bunkers, leaving behind a large amount of ammunition, weapons, documents, maps, clothing and general stores.²⁴

This attack disorganised C41 Chau Duc District Company and delayed its entry into Xa Hoa Long, resulting in the whole of 1ATF ready reaction force being available to be deployed against 1 Battalion 33 NVA Regiment in Xa Binh Ba.²⁵

The military purpose of the Viet Cong occupations of Xa Binh Ba and Xa Hoa Long was not to 'relieve 6RAR-NZ pressure on its headquarters'; nor were the occupations 'feints to draw 6RAR-NZ away from 1 Battalion 33 NVA Regiment to allow the remainder ... to cross Route 2'.²⁶ The aim was to demonstrate the inability of both the South Vietnamese Government and 1ATF to prevent Viet Cong from occupying villages and imposing temporary communist political control over the villagers. This was confirmed by the interrogation of prisoners taken at Xa Hoa Long who stated:

The intention was to overrun the Regional Force Post and hold it for two to three days to demonstrate the ineffectiveness of the Government of Vietnam and 1ATF in preventing Viet Cong incursions into populated areas.²⁷

The result was a political failure and military disaster for both 33 NVA Regiment and C41 Chau Duc District Company.

11 JUNE: A DEFENDED BUNKER SYSTEM – THE THIRD BATTLE WITH 33 NVA REGIMENT

The third battle began at 1445 hrs on 11 June when B company 6RAR-NZ found and attacked 2 Battalion 33 NVA Regiment in a strongly defended bunker system 5000 metres west of FSPB Virginia (Map 3). When patrolling along the axis of a Viet Cong communications route in the western half of AO Vincent, a forward scout from the leading platoon saw a small group of North Vietnamese in bunkers at a distance of forty-five metres, and at ten metres a sentry sheltering from the monsoonal rain under plastic sheeting. The company commander, Major Holland, decided to make a silent platoon attack from a flank, but surprise was lost when the sentry looked up and saw the forward scout. B Company immediately attacked with one platoon and, on penetrating the system, came under heavy fire from more bunkers. The objective

Battered by the company attack and artillery fire, the C41 Chau Duc District Company withdrew...

was larger than first realised, so at 1700 hrs the company commander reinforced the attack with a second platoon. The enemy reaction was fierce and relentless: B Company was met by an intense volume of small arms fire and rocket-propelled grenades from the front, flanks and snipers in trees.

During a two-hour firefight in failing light and monsoonal rain, Major Holland, though wounded, coordinated a heavy concentration of artillery fire: 7.62 mini-gun fire from US Army Spooky aircraft, flares from a US Army Firefly aircraft, and rocket and machine gun fire from a gunship escort for Dustoff helicopters evacuating the wounded.²⁸

The continued artillery fire and pressure by B Company on the enemy's bunkers was so aggressive and relentless that soon after dark the North Vietnamese abandoned their defensive position and withdrew northwards, leaving their dead behind and carrying their wounded on litters. When B Company advanced into the bunker system, Major Harris, the new company commander, found it had been occupied by more than 200 North Vietnamese.²⁹

This was a decisive battle. It drove 2 Battalion 33 NVA Regiment out of a secure, well defended, tactical position, forced it into a hasty retreat, and prevented it from providing a secure base for survivors from 1 Battalion 33 NVA Regiment and C41 Chau Duc Company after their failed occupations of Xa Binh Ba and Xa Hoa Long.

B Company was met by an intense volume of small arms fire and rocket-propelled grenades...

12 JUNE: AMBUSH IN THE OPEN – THE FOURTH BATTLE WITH 33 NVA REGIMENT

The fourth battle was a continuation of the previous night's attack by B Company on 2 Battalion 33 NVA Regiment's bunker system (Map 3). It began at 0930 hrs on 12 June when V Company (NZ), deployed in a series of platoon ambush positions, observed a column of more than 200 North Vietnamese moving along a well-used Viet Cong communications route near LZ Soot in the north-west of AO Vincent. They were carrying about twenty-five casualties on litters and holding pieces of green bush over their heads for camouflage. When the column entered the first of the ambushes, Major Lynch, the NZ company commander, called the 6RAR-NZ command post, demanding 'all available air urgently', explaining that light fire teams would be better weapons than artillery to use against a long, straggling line of North Vietnamese in the open. The command post immediately ordered three light fire teams for close air support and an airborne observer, Jade, to direct an airstrike.

When a passing Sioux helicopter flew overhead, the enemy column split into two: the rear half fled back along the track and went to ground in thick scrub; the leading half ran forward and found cover in dead ground in a dry creek bed. Surprise was lost. Though the North Vietnamese were more than 300 metres away, V Company engaged them with small arms, machine guns and M79 grenades. During the hour-long firefight, the North Vietnamese regrouped for a counterattack but were forced to retreat under pressure from V Company and from rocket and heavy machine gun fire from helicopters. At 1130 hrs two platoons of V Company attacked the enemy, killing small groups and forcing the survivors to abandon their positions, leaving behind a large amount of equipment scattered over the site. Bodies and documents identified 2 Battalion 33 NVA Regiment supported by at least two heavy weapons companies.³⁰

This was the final contact with 33 NVA Regiment during Operation LAVARACK. Soon afterwards, 547 Signals Troop in Nui Dat intercepted a message from the regimental headquarters rebuking the commander of 2 Battalion for his poor performance on 12 June, saying that he had demonstrated a 'lack of battlefield discipline in breaking and running in daylight'.³¹ The survivors from 33 NVA Regiment crossed the northern border of Phuoc Tuy Province and retreated to their home base in Long Khanh Province where, in late June, they were identified by US Army electronic intelligence.³²

...light fire teams would be better weapons than artillery to use against a long, straggling line of North Vietnamese in the open.

5-20 JUNE: 274 VC REGIMENT IN THE BOTTLENECK AND COURTENAY

The frequency of contacts with elements of 274 VC Regiment demonstrated that it was fully integrated into the communist operational and administrative structure in Phuoc Tuy Province. It operated freely as a matter of routine, using communication routes, staging areas, bunker systems, resupply points, rest areas and medical installations, and made use of 'home bases' in Phuoc Tuy Province when there was a need for re-arming and reorganising before and after conducting offensive operations. During Operation LAVARACK, 6RAR-NZ had thirteen contacts with elements of 274 VC Regiment, some with its rifle companies and others with subordinate units such as 2089 Infiltration Unit, C21 Sapper Recce Company, C22 Transport Company, C24 Convalescent Company and C25 Assault Youth Company. On occasions its presence was identified from prisoners, documents, bodies or abandoned equipment. Three of the contacts were decisive battles.

5 JUNE: THE COURTENAY – FIRST AMBUSH OF 274 VC REGIMENT

The first major contact occurred on the east-west communications route in the Courtenay at 1930 hrs on 5 June when the headquarters and a platoon of D Company 6RAR-NZ ambushed more than 100 Viet Cong. Because the incoming direction of the enemy was not known, the company commander, Major Stewart, used a triangular shaped ambush which covered all approaches, and sited a series of claymores which would be fired to initiate contact. During stand-to, an enemy column was seen moving in darkness in single file on one side of the ambush position. The sentries allowed the first thirty Viet Cong through and when the main group was in the killing ground a flare was set off and claymores fired. Surviving Viet Cong withdrew to dead ground about twenty metres in front of the ambush position and were engaged by small arms, M79 grenades and artillery. A sweep at first light found six bodies and captured two wounded.

One of the prisoners, Nguyen Van Sung, identified the Viet Cong as a composite group from 274 VC Regiment: C22 Transport Company and 2 Company 2 Battalion; and staff officers from HQ 274 VC Regiment: Ut Thang, a unit commander, and Ba Thanh, a staff officer. The column was moving to Nui May Tao to be resupplied with weapons and ammunition in preparation for an unspecified attack, possibly against FSPB Grey in Long Khan province.³³

17 JUNE: THE BOTTLENECK – ATTACK ON 1 BATTALION 274 VC REGIMENT

The second major contact with 274 VC Regiment occurred on 17 June following an 'aerial radio direction finding' by 547 Signals Troop in Nui Dat when tracking the movement of HQ 274 VC Regiment from its 'home base' in Long Khanh Province towards the Royal Thai Army base at FSPB Grey.³⁴ 274 VC Regiment was expected to enter Phuoc Tuy Province on its way to attack FSPB Grey. To disrupt its entry, 6RAR-NZ inserted V Company (NZ) about 3000 metres west of the Bottleneck to conduct a block, search and ambush operation.³⁵

On 17 June V Company contacted elements of 1 Battalion 274 VC Regiment in three separate areas north-west of the Bottleneck. The first battle occurred late in the afternoon when a group of Viet Cong were killed as they entered a platoon ambush site. Four hours later a second and larger group entered the same ambush position and was engaged by a

The first battle occurred late in the afternoon when a group of Viet Cong were killed as they entered a platoon ambush site.

platoon of V Company in darkness at a distance of ten metres. The Viet Cong returned fire, probed the ambush from the flanks and continued attacking in darkness despite close artillery support and 7.62 machine gun fire from Spooky. The platoon held its position until 0200 hrs when all Viet Cong attacks failed and they withdrew.

The second battle occurred nearby at 1630 hrs on a high ridge beside a river when V Company's lead platoon contacted a lone Viet Cong beside a stream and killed him. When the platoon conducted a sweep of the contact site it came under accurate rocket-propelled grenade and small arms fire from a large group of Viet Cong in bunkers on the other side of a stream. Despite the heavy volume of fire, two platoons of V Company attacked the enemy position. The firefight was intense and continued until last light when the enemy abandoned their bunkers and withdrew.³⁶ Documents and bodies identified 1 Battalion 274 VC Regiment, which was probably using the area as a convenient operational staging point in support of the regimental attack on FSPB Grey.

20 JUNE: THE COURTENAY – SECOND AMBUSH OF 274 VC REGIMENT

The final contact with 274 VC Regiment occurred on 20 June. It was also a consequence of the Viet Cong attack on FSPB Grey on 17 June. The intelligence expectation was that Viet Cong survivors would pass along the secure east-west route through the Bottleneck, Triangle and Courtenay to deliver casualties and be resupplied from the logistics support bases in Nui May Tao. Major Stewart, the company commander of D Company 6RAR-NZ, positioned his platoons in a series of ambushes along this route but was concerned that his platoon-sized ambushes would be opposed by larger sized enemy forces. To neutralise enemy superiority in numbers, he used series of banked claymores as an integral part of D Company's ambushing tactic.³⁷

Just after first light on 20 June, a platoon of D Company ambushed a large group of Viet Cong from 1 Battalion 274 VC Regiment: C32 Company, C24 Convalescent Company, C12 Assault Youth Company and K21 Sapper Recce Company. The ambush, which had been in position for three days, was sited on the edge of thick bamboo overlooking the well-used Viet Cong pathway in the Courtenay Rubber Plantation. It was about sixty metres long with banks of claymores angled in series along the track. Towards last light more than 100 Viet Cong were seen moving from the Triangle towards Nui May Tao. The leading elements were allowed through the ambush position and when the

The firefight was intense and continued until last light when the enemy abandoned their bunkers and withdrew.

main body was inside the killing ground the claymores were fired and the area swept with machine gun and small arms fire. Viet Cong survivors scattered to the south and west, some returning fire as they fled. A sweep recovered twenty-two bodies including two officers, a non-commissioned officer, an intelligence clerk and large quantities of weapons, ammunition, litters, medical stores, food and documents. One document was a letter from 1 Battalion 274 VC Regiment, referring its casualties to K76A hospital.

Nearby, a second large group of Viet Cong was seen moving through the same area. Due to an overflight by helicopters from a light fire team, the group scattered and as a result was unidentified, though abandoned litters and equipment indicated they were porters carrying wounded to K76A hospital, and were protected by elements of 274 VC Regiment.³⁸ There were a number of blood trails.

DISRUPTION OF THE VC ADMINISTRATIVE SYSTEM

An unacknowledged achievement of Operation LAVARACK was that it severely disrupted the Viet Cong administrative system in Phuoc Tuy Province. Before 1969 the 1ATF operational focus was on the Long Hai Hills, Route 44 and operations with United States forces outside Phuoc Tuy Province. The west and north of Phuoc Tuy Province were neglected and became relatively safe for the Viet Cong, who took the opportunity to extend their administrative systems into these areas.

By mid-1969 they had built a series of bunkers for use as staging depots, rest and recovery camps, medical facilities, courier posts, supply points and caches for food, medical supplies, weapons, ammunition and general military equipment. These installations were positioned along Viet Cong routes connected to major storehouses in Nui May Tao, and serviced main force units when they entered Phuoc Tuy Province.³⁹ Three important elements of this administrative system were the east-west communication route across the north of Phuoc Tuy Province, logistics installations inside Phuoc Tuy Province, and the casualty evacuation system.

An unacknowledged achievement of Operation LAVARACK was that it severely disrupted the Viet Cong administrative system in Phuoc Tuy Province.

THE EAST-WEST COMMUNICATIONS ROUTE

The east-west communications route was an active, secure logistics pathway through the Triangle, the Bottleneck and the Courtenay (Map 2).⁴⁰ Information from casualties, prisoners, documents and equipment identified many support units and

installations such as: Post B6, a Viet Cong supply depot at the western entrance to the Bottleneck; C5 Forward Supply Unit from Ba Long Province Rear Services Group; the Baria Provincial Party Chapter, Ba Long Province Forward Supply Council; and the B1 and B2 Cao Xu Postal Units, which operated a mail delivery system from Nui May Tao to forward supply units in Phuoc Tuy, Bien Hoa and Long Khanh Provinces.⁴¹

The abandoned village of Xa Cam My was used by the Ba Long Province Forward Supply Council as a central control point for their administrative system. One of its storage bunkers held a large supply of food—rice, peas, salt, gelatine, flour, maize, dried fruit, soya bean oil and tinned fish—and recently had issued forty-four short tons of rice, sufficient for 1800 Viet Cong for one month.⁴²

C195 Company was a Viet Cong ‘Special Delivery Unit’ from Military Region T7. Its ‘supply’ task was the delivery of military equipment, weapons, ammunition, general stores, food and clothing; its ‘operational’ tasks were reconnaissance, portage, battlefield recovery and casualty evacuation. During Operation LAVARACK, 6RAR-NZ

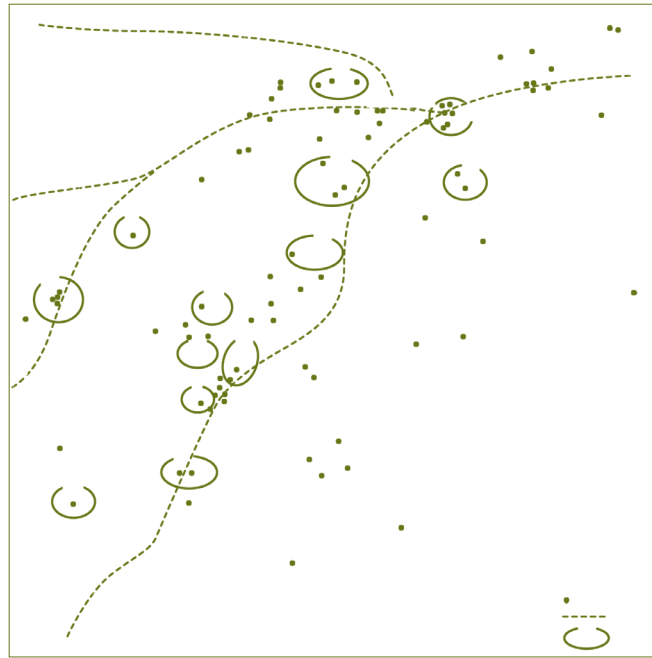
identified the frequent involvement of C195 Company in contacts: in a bunker system on the east-west communications route north of LZ Ash;⁴³ from the body of ‘squad leader of C195 Company’ at the western entrance to the Bottleneck;⁴⁴ in K76B hospital bunkers 2000 metres south of LZ Ash; at Xa Binh Ba with 33 NVA Regiment on 6 June, when twelve were killed and eleven wounded; and in late June with 67 Engineer Battalion conducting a reconnaissance of Regional Force Post Phu My 5 in preparation for an attack by 274 VC Regiment.⁴⁵

Successful contacts by 6RAR-NZ during Operation LAVARACK inflicted many casualties on C195 Company, reducing its effectiveness in both its administrative and operational roles, and severely damaging its ability to service main force units.

The abandoned village of Xa Cam My was used by the Ba Long Province Forward Supply Council as a central control point for their administrative system.

BUNKER SYSTEMS

Bunker systems in Phuoc Tuy Province were an important part of the Viet Cong administrative system (Map 5). Some were for accommodation, others for storage. Accommodation bunkers were built above ground and designed for protection from artillery fire and bombing.⁴⁶ They usually covered large areas such as the C41 Chau Duc District Company’s ‘home base’ of nineteen large bunkers spread over an area 120 by 150 metres and occupied by over forty Viet Cong,⁴⁷ and a system captured by B Company which was occupied by more than 200 North Vietnamese from



Map 5. Attack Routes at Binh Ba

2 Battalion 33 NVA Regiment.⁴⁸ Storage bunkers usually had shelving and contained caches of ammunition, weapons, documents, maps, clothing, food and general stores. A storage bunker captured in the Bottleneck contained plastic explosive, Bangalore torpedoes, grenades, anti-tank mines and mortar bombs; and another in the Courtenay was an ammunition point holding a large quantity of grenades, anti-tank mines, plastic explosive, mortar bombs and 75mm recoilless rifle rockets. Bunkers were the basis of the Viet Cong distribution system and their destruction during Operation LAVARACK was a severe setback for Viet Cong administration.

HOSPITALS

The main hospital for Military Region T7 was K76A in Nui May Tao. It accepted casualties from main force units in Phuoc Tuy, Long Khanh, Bien Hoa and Binh Tuy Provinces. During Operation LAVARACK, 6RAR-NZ uncovered a second major hospital in the west of Phuoc Tuy Province. On 22 June, W Company (NZ) entered a bunker system on a Viet Cong route about 2000 metres south of LZ Soot and came under heavy fire from small arms, machine guns and rocket-propelled grenades. After a fierce firefight, Major Williams, the company commander, called for artillery support, a light fire team and an airstrike. By 1310 hrs the Viet Cong

had been driven out of the bunkers. On entering the system, W Company found thirty-one bunkers, an operating theatre, two wards and a number of fighting pits sited for all-round defence; and recovered large quantities of food, clothing, military equipment, grenades, bottles of plasma, medicines, drugs, hospital instruments and medical appliances. Captured documents identified K76B hospital, a medical installation for casualties from 33 NVA Regiment, 274 and 275 VC Regiments and D440 LF Battalion.⁴⁹ An associated medical facility, K10 dispensary, was found by B Company in a large bunker system 2000 metres south of K76B hospital.⁵⁰ These attacks on bunker systems during Operation LAVARACK destroyed the ability of K76B hospital and K10 dispensary to function, and forced both medical facilities to withdraw to K76A hospital in Nui May Tao.⁵¹

VIET CONG CASUALTY EVACUATION SYSTEM

In June 1969, radio direction-finding operators in 547 Signals Troop in Nui Dat tracked the movement of 274 VC Regiment from its base in Long Khanh Province towards Bien Hoa City, and decoded a message from the regiment's commander to 84 Rear Services Group: '...after contact you are to take wounded to Nui May Tao as discussed at the meeting.'⁵² This signals intelligence information was passed to FSPB Grey, where a strong defence inflicted a large number of casualties on 274 VC Regiment. The Viet Cong plan was to evacuate the wounded by porter parties to casualty-collecting stations in the Bottleneck and then to K76A hospital.

At 0710 hrs on 20 June, a D Company platoon ambushed over 100 Viet Cong porters and armed escorts, capturing a porter, Khuat Duy Don.

Khuat Duy Don, age 21, was an infiltrator from North Vietnam. During interrogation he confirmed that stretcher-bearers conducted a casualty evacuation system through the Courtenay Rubber Plantation to hospitals in Nui May Tao. With seven others he was led to Phuoc Tuy

Province by guides. His unit was 2089 Mobile Company. He arrived in a base camp on 13 June 1969 with his platoon of twelve, and on the afternoon of 19 June, a group of ninety Viet Cong joined them. They carried light machine guns and AK47s. On the evening of 19 June he was issued with eight litres of rice. At 0450 hrs on 20 June, his group moved through a rubber plantation across two roads and at first light arrived at an RV where they collected wounded Viet Cong. With five of his party to each wounded on a litter they moved east, but at 0700 hrs they were ambushed. He dropped his litter and with eleven others fled north.⁵³

The Viet Cong plan was to evacuate the wounded by porter parties to casualty-collecting stations in the Bottleneck and then to K76A hospital.

During the sweep, a second large group of Viet Cong was identified moving through the same area; abandoned litters and equipment indicated that they were also porters carrying wounded to K76A hospital.⁵⁴

EFFECT ON VIET CONG MORALE

Successful ambushing along the east-west route during Operation LAVARACK denied the Viet Cong safe use of a previously secure casualty evacuation route, and added to the general disruption of Viet Cong administration. The subsequent decline in support for operational units in Phuoc Tuy Province affected morale and efficiency. Le Van Khanh, a platoon commander in 33 NVA Regiment,⁵⁵ told interrogators:

Life was very difficult with the Viet Cong, morale was very low and most of the battalion wanted to surrender but did not know how. Food was scarce and supply of rice was difficult because of Australian activity, so carriers were sent on a three day march [to Xa Thai Thien on National Route 15] each way for food. Rations were very short and mainly consisted of dry cod and noodles; ammunition for 33 NVA Regiment's mortars was very short with only about twenty rounds for each mortar; and small arms ammunition was available but had to be picked up from the Cambodian border.⁵⁶

Documents recovered from K76B hospital recorded that the wards were in poor condition, staff morale was low and patients complained of scarcity of medical drugs, poor quality of medicines, unsatisfactory treatment and military operations that were 'causing difficulties in obtaining food'.⁵⁷ One Viet Cong diarist wrote that he was eating 'plant shoots and fern roots'. Khuat Duy Don a stretcher-bearer in 2089 Mobile Company said, 'his unit was short of food and he often had to eat just rice and vegetables', and he was 'not happy as a soldier'.⁵⁸

...the wards were in poor condition, staff morale was low and patients complained of scarcity of medical drugs, poor quality of medicines, unsatisfactory treatment...

Constant pressure by 6RAR-NZ on the Viet Cong administrative system during Operation LAVARACK had been effective. There were eighty-five contacts between 6RAR-NZ and Viet Cong groups, and of these more than thirty-four occurred along the east-west route. They brought normal Viet Cong administrative traffic to a halt and severely weakened the ability of rear service groups to supply Viet Cong units. The resultant ineffective administration contributed to a strategic redeployment of Viet Cong main force units: the survivors of 33 NVA Regiment retreated to a 'home base' in the Ong Que Rubber Plantation in Long Khanh Province;⁵⁹ the second main force unit, 274 VC Regiment,

was dispersed into safe 'home bases' in Long Khanh and Bien Hoa Provinces;⁶⁰ 84 Rear Services Group, due to operational inefficiencies and a shortage of food, was moved out of Military Region T7 and sent north to War Zone D;⁶¹ and in early July, HQ 5 VC Division (which commanded 33 NVA Regiment and 274 and 275 VC Regiments) withdrew from Military Region T7 'because of lack of food and supply difficulties' and moved north into War Zone D.⁶²

CONCLUSION

A major contribution to these military successes was the 'spectacularly effective'⁶³ tactical positioning of the five rifle companies on all enemy routes throughout western and northern Phuoc Tuy Province. Though this broad spread of rifle companies minimised mutual support, it resulted in an unusually large number of contacts with Viet Cong, and demonstrated that the advantages of a numerically superior enemy over isolated rifle companies could be neutralised by effective, timely fire support.

Operation LAVARACK was a unique military success. During thirty-two days of continuous patrolling and ambushing, results were remarkable: the defeat in battle of two main force regiments and a district company with crippling losses; the capture and destruction of hundreds of enemy bunkers; the disruption of the Viet Cong administrative system in Phuoc Tuy Province; the denial to the enemy of vital lines of communication and supply; and the irreparable reduction of the military and political position of the Viet Cong in Phuoc Tuy Province. The outcomes of Operation LAVARACK were so strikingly exceptional that they are deserving of serious historical recognition.

A major contribution to these military successes was the 'spectacularly effective' tactical positioning of the five rifle companies...

ENDNOTES

- 1 Ashley Ekins, Head, Military History Section, at 'A symposium to commemorate the 40th anniversary of the Battle of Binh Ba, South Vietnam, 6–8 June 1969'.
- 2 This summary does not include enemy casualties at Xa Binh Ba on 6 June.
- 3 6RAR-NZ (Anzac) Battalion was a combined Australian and New Zealand battalion; there were three Australian rifle companies (A, B and D) and two New Zealand (V and W), and additional New Zealand headquarters and support company personnel. 6RAR-NZ was supported by B Squadron 3 Cavalry Regiment, B Squadron 1 Armoured Regiment, 101 Field Battery RAA, 1 Field Squadron RAE and 161 Reconnaissance Flight.

- 4 War Diary HQ 1ATF, 1-4-151, op instr 49/69 (op Lavarack), 29 May 1969, pp. 175–81; and War Diary 6RAR, 7-6-17, opo 1 (op Lavarack), 29 May 1969, pp. 89–114.
- 5 During June the two other battalions in 1ATF, 5RAR and 9RAR conducted operations in AO Illawarra, in the Nui Thi Vai Hills to the south of AO Vincent, and AO Aldgate and AO Block in the Long Hai Hills, Route 44 and Dat Do to the south-east.
- 6 For efficiency of command and control, COSVN—the Central Office for South Vietnam (Viet Cong)—divided South Vietnam into military regions. Phuoc Tuy Province was in Military Region T7. See L Johnson (ed.), *The History of 6RAR-NZ (ANZAC) Battalion, Volume Two, 1967 to 1970*, 6 RAR/NZ Bn, Enoggera, 1972, pp. 39–42, and the pocket enclosed map, ‘Enemy Districts, Base Areas and Units’.
- 7 COSVN divided South Vietnam into Viet Cong provinces. Ba Long Province included all Phuoc Tuy and parts of Bien Hoa, Long Khanh and Binh Tuy Provinces. See Johnson, *The History of 6RAR-NZ (ANZAC) Battalion*, pp. 40–42, and the pocket enclosed map, ‘Enemy Districts, Base Areas and Units’.
- 8 For detailed descriptions of the storehouses and K76A hospital in Nui May Tao, see Johnson, *The History of 6RAR-NZ (Anzac) Battalion*, pp. 95–109.
- 9 War Diary HQ 1ATF, 1-4-156, Vietnam digest 19/69, 24–31 May 1969, pp. 165–168; War Diary HQ 1ATF, 1-4-151, op instr 49/69 (op Lavarack), 29 May 1969, p. 181; War Diary 6RAR, 7-6-17, opo 1 (op Lavarack), 29 May 1969, p. 106; Johnson, *The History of 6RAR-NZ (ANZAC) Battalion*, pp. 39–42, 47–48, 51–53.
- 10 DM Butler, Interview with author, 1 December 1969.
- 11 A Bishop, Interview with author, 20 June 2009.
- 12 War Diary HQ 1ATF, 1-4-156, Vietnam digest 19/69, 24–31 May 1969, paras 11–12, p. 2, assessment of enemy intentions, p. 167; Vietnam Digest 20/69, 17–24 May, para 8–9, p. 3, assessment of enemy intentions, p. 172; Vietnam digest 23/69, 7–14 June 1969, paras 8–11, p. 3, assessment of enemy intentions, p. 186; War Diary HQ 1ATF, 1-4-156, enemy situation, 1–8 June 1969, paras 2e and 2g, p. 157.
- 13 Proselytisers from the Ba Long Province Proselytising Unit accompanied 1 Battalion 33 NVA Regiment into Binh Ba and began instructing villagers on arrival. War Diary HQ 1ATF, 1-4-156, intsum 160/69, 9 June 1969, p. 106.
- 14 A57 Rear Services Company was attached to 1 Battalion 33 NVA Regiment. It was probably on a resupply mission because captured documents included an indent for rice from C5 Company 84 Rear Services Group in Nui May Tao.
- 15 A light fire team consisted of two helicopter gunships and a heavy fire team three. 9 Squadron RAAF named their gunships Bushrangers.
- 16 War Diary 6RAR, 7-6-18, ops log, 5 June 1969, sheets 3–15, pp. 48–61; 6RAR War Diary, 7-6-22, contact after action report (W Company NZ), 5 June 1969, pp. 145–47; Johnson, *The History of 6RAR-NZ (ANZAC) Battalion*, p. 48; Brian Avery, *We Too Were Anzacs*, Slouch Hat Publications, Rosebud, 2004, pp. 97–98.
- 17 A H Smith, Interview with author, 27 November 2008.

- 18 War Diary HQ 1ATF, 1-4-156, ground commander's daily situation report, 6 June 1969, paras 1a(6-7), p. 15; D M Butler, Interview with author, 28 October 2009. The decision to deploy the ready reaction force was made during two radio discussions between the commanders of 1ATF and 6RAR-NZ at 0815 and 0820 hrs on 6 June 1969.
- 19 The ready reaction force consisted of D Company 5RAR, a composite troop from B Squadron 1 Armoured Regiment and 3 Troop B Squadron 3 Cavalry Regiment, supported by 105 Field Battery RAA. The 6RAR-NZ command post in FSPB Virginia expected the ready reaction force to join the 6RAR-NZ command net as another sub-unit under command for orders, coordination of fire support from artillery, mortars and offensive air, and for casualty evacuation and reporting.
- 20 A H Smith, Interview with author, 27 November 2008; War Diary, B Squadron 1 Armoured Regiment, 2-2-5, ops log, 1-30 June 1969; War Diary 1ATF, 1-4-153, ops log, 5-6 June 1969, sheets 37-43, pp. 49-55; War Diary 6RAR, 7-6-18, ops log, 6 June 1969, serials 7-62, pp. 62-67; A Perriman, 'The Battle of Binh Ba', *Australian Infantry*, September 1969, pp. 5-7.
- 21 At this stage the enemy casualties caused by the tank troop were: '27 KIA and 2 PW'; A H Smith, Interview with author, 27 November 2008; War Diary, B Squadron 1 Armoured Regiment, 2-2-5, ops log, 6 June 1969; 'Heritage, The Battle at Binh Ba, Operation Hammer, South Vietnam 6-8 June 1969', *Ironsides*, The Magazine of the Royal Australian Armoured Corps, Combat Arms No. 2, 1983, pp. 3-10.
- 22 War Diary HQ 1ATF, 1-4-153, ops log, 6 June 1969, sheets 38-42, pp. 52-56; and War Diary 6RAR, 7-6-18, ops log, 6 June 1969, pp. 62-68.
- 23 War Diary 5RAR, 7-5-27, combat after action report 6/69 (op Hammer), 11 June 1969, pp. 84-92.
- 24 War Diary 6RAR, 7-6-22, contact after action report (A Company), 4 June 1969, pp. 7-9.
- 25 War Diary HQ 1ATF, 1-4-156, enemy situation in Phuoc Tuy Province, 1-8 June 1969, pp. 157-58; C H Ducker, Officer Commanding C Company 5RAR during Operation TONG in June 1969, Interview with author, 25 November 2008; War Diary 5RAR, 7-5-27, contact after action report 8/69, Operation TONG, 7 June 1969.
- 26 War Diary 5RAR, 7-5-27, combat after action report 6/69 (op Hammer), Annex A, para 6b, 11 June 1969, p. 89; War Diary 6RAR, 7-6-22, after action report, para 4a(1)(b), 1-30 June 1969, p. 165; War Diary HQ 1ATF, 1-4-156, Vietnam digest 19/69, 24-31 May 1969, paras 11-12, p. 2, assessment of enemy intentions, p. 167; Vietnam Digest 20/69, 17-24 May, para 8-9, p. 3, assessment of enemy intentions, p. 172; Vietnam digest 23/69, 7-14 June 1969, paras 8-11, p. 3, assessment of enemy intentions, p. 186; War Diary HQ 1ATF, 1-4-156, enemy situation, 1-8 June 1969, paras 2e and 2g, p. 157.
- 27 Interrogation of prisoners at Xa Hoa Long on 7 June; War Diary HQ 1ATF, 1-4-156, enemy situation, 1-8 June 1969, para 2g, p. 157.

- 28 Spooky, or Puff the Magic Dragon, was a C47 Douglas DC3 with flares and three Gatling mini-guns each of eighteen barrels. Firefly was a C130 with lights and cluster flares. Dustoffs were Iroquois helicopters with an onboard medical crew for casualty evacuation.
- 29 War Diary 6RAR, 7-6-22, contact after action report (B Company), 11 June 1969, pp. 28–30; War Diary HQ 1ATF, 1-4-154, ops log, sheets 87–90, June 69, pp. 19–22; Johnson, *The History of 6RAR-NZ (ANZAC) Battalion*, p. 49; Avery, *We Too Were Anzacs*, pp. 98–99.
- 30 War Diary 6RAR, 7-6-18, ops logs, 12 June 1969, pp. 104–07; War Diary 6RAR, 7-6-22, contact after action report (V Company NZ), 12 June 1969, pp. 74–77; War Diary HQ 1ATF, 1-4-154, ops log, 12 June 1969, sheets 90–93, pp. 22–25; Johnson, *The History of 6RAR-NZ (ANZAC) Battalion*, pp. 49–51; Avery, *We Too Were Anzacs*, pp. 106–07.
- 31 D M Butler, Interview with author, August 2009.
- 32 War Diary HQ 1ATF, 1-4-160, Vietnam digest, issue 25/69, 21–28 June 1969, para 7, p. 178.
- 33 War Diary HQ 1ATF, 1-4-156, intsum 158/69, 7 June 1969, para 7, p. 102; War Diary 6RAR, 7-6-22, after action report 1–30 June 1969, pp. 94–95; War Diary 6RAR, 7-6-18, ops log, 5–6 June 1969, pp. 60–63; War Diary HQ 1ATF, 1-4-153, ops log, 5–6 June 1969, sheets 37–39, pp. 49–53; Johnson, *The History of 6RAR-NZ (ANZAC) Battalion*, p. 51; Avery, *We Too Were Anzacs*, pp. 98–99.
- 34 FSPB Grey was about twenty kilometres west of Xuan Loc city in Long Khanh Province. In June 1969 FSPB Grey was occupied and defended by the Royal Thai Army.
- 35 A Bishop, Interview with author, 20 June 2009; War Diary 6RAR, 7-6-20, operation order, 16 June 1969, p. 67.
- 36 War Diary 6RAR, 7-6-18, ops log, 17 June 1969, pp. 106–08; War Diary 6RAR, 7-6-22, contact after action report (V Company NZ), 17 June 1969, pp. 78–85; War Diary 6RAR, 7-6-22, after action report 1–30 June 1969, pp. 165–67; Avery, *We Too Were Anzacs*, p. 109.
- 37 I Stewart, AWM, oral history recording, 2 May 1996.
- 38 War Diary 6RAR, 7-6-19, ops log, 20 June 1969, serials 1–32, sheets 1–6, pp. 44–49; War Diary 6RAR, 7-6-22, after action report 1–30 June 1969, pp. 94–95; War Diary HQ 1ATF, 1-4-154, ops log, 20 June 1969, pp. 78–82; War Diary 6RAR, 7-6-22, contact after action report (D Company), 20 June 1969, pp. 103–05; War Diary HQ 1ATF, 1-4-156, intsum 171/69, 20 June 1969, para 3a, p. 130; A Bishop, Interview with author, 20 June 2009.
- 39 War Diary 6RAR, 7-6-22, after action report, intelligence summary, 1–30 June 1969, pp. 165–67.
- 40 War Diary 6RAR, 7-6-17, enemy situation, opo 1 (op Lavarack), 29 May 1969, pp. 106–07; War Diary 6RAR, 7-6-22, after action report, 1–30 June 1969, pp. 165–80; Johnson, *The History of 6RAR-NZ (ANZAC) Battalion*, p. 50, and the pocket enclosed map, 'Operation Lavarack enemy situation'.

- 41 War Diary 6RAR, 7-6-22, after action report, para 4b(1)(d), 1–30 June 1969, p. 165; War Diary HQ 1ATF, 1-4-156, intsum 155/69, para 7, 1–30 June 1969, p. 93.
- 42 The rice had been provided by suppliers in Dat Do and Provincial Route 44 villages. War Diary HQ 1ATF, 1-4-156, intsum 162/69, para 7, 11 June 1969, p. 111. Xa Cam My was on Provincial Route 2 north of the large village of Xa Binh Gia. B Squadron 1 Armoured Regiment on operations near Xa Binh Gia and Xa Cam My found a plantation of maize being tended by a Viet Cong man with a rifle. When challenged he fired one shot and fled. On harvesting the crop, the Duc Thanh Regional Force Company recovered eight 5-ton truck loads of maize cobs. A H Smith, Interview with author, 28 June 2009.
- 43 War Diary HQ 1ATF, 1-4-156, intsum 157/69 para 7, 6 June 1969, p. 98. In this contact C195 Company was (mistakenly) identified in the intelligence summary as a 'Postal Unit subordinate to HQ MRT7'.
- 44 War Diary HQ 1ATF, 1-4-156, intsum 158/69 para 7, 7 June 1969, p. 102.
- 45 War Diary HQ 1ATF, 1-4-160, intsum 195/69 para 12e(2), 14 July 1969, p. 120.
- 46 MJ Harris, Interview with author, 16 October 2009. Usually Viet Cong did not sleep in bunkers but in hammocks outside. Weapon pits or 'special bunkers' were tactically sited on likely approaches.
- 47 War Diary 6RAR, 7-6-22, contact after action report (A Company), pp. 7–9, 4 June 1969, p. 166.
- 48 War Diary 6RAR, 7-6-18, ops logs, 5 June 1969, pp. 98–102; War Diary 6RAR, 7-6-22, contact after action report (B Company), 11 June 1969, pp. 28–30; Johnson, *The History of 6RAR-NZ (ANZAC) Battalion*, p. 49; Avery, *We Too Were Anzacs*, pp. 98–99.
- 49 War Diary 6RAR, 7-6-22, after action report, para 4b(1)(c) and 4b(2), 1–30 June 1969, p. 167; War Diary HQ 1ATF, 1-4-154, ops log, sheet 171, p. 103.
- 50 Documents recovered from the body of Cao Van Tich, the 'political officer of K10', confirmed its identification; War Diary HQ 1ATF, 1-4-156, intsum 176/69, para 7, 25 June 1969, pp. 143–44.
- 51 War Diary HQ 1ATF, 1-4-156, intsum 158/69, para 7, 7 June 1969, p. 102, and intsum 160/69, June 1969, p. 106; War Diary 6RAR, 7-6-22, after action report, para 4b(1)(c) and 4b(2), 1–30 June 1969, p. 167.
- 52 A Bishop, Interview with author, 20 June 2009.
- 53 War Diary HQ 1ATF, 1-4-156, intsum 174/69, para 4, 23 June 1969, pp. 138–39, interrogation Khuat Duy Don.
- 54 War Diary 6RAR, 7-6-19, ops log, 20 June 1969, serials 1–32, sheets 1–6, pp. 44–49; War Diary 6RAR, 7-6-22, contact after action report (D Company), 20 June 1969, pp. 103–05; War Diary HQ 1ATF, 1-4-154, ops logs, sheets 146–150, 20 June 1969, pp. 78–82.
- 55 Le Van Khanh was the platoon commander of 8 platoon 8 heavy weapons company, D440 LF Battalion and was attached to C2 heavy weapons company 33 NVA Regiment for the occupation of Xa Binh Ba.

- 56 War Diary HQ 1ATF, 1-4-160, intsum 198/69, 17 July 1969, pp.212–13, interrogation Le Van Khanh.
- 57 War Diary HQ 1ATF, 1-4-156, intsum 176/69, 25 June 1969, pp. 143–44, documents captured at K76B hospital.
- 58 War Diary HQ 1ATF, 1-4-156, intsum 174/69, 23 June 1969, pp. 138–39, interrogation Khuat Duy Don.
- 59 War Diary HQ 1ATF, 1-4-160, Vietnam digest, 25/29, 21–28 June 1969, pp. 177–79.
- 60 In July 1969, HQ 274 VC Regiment returned to Phuoc Tuy Province to a 'freshly renovated base camp' north of the Nui Thi Vai Hills; War Diary HQ 1ATF, 1-4-160, Vietnam digest 26/29, para 7, 28 June to 5 July 1969, p. 184.
- 61 The Xuan Loc Worksite, C125 Transport Company, K76A and K1500 Hospitals, and Z300 Workshop remained in place in Nui May Tao.
- 62 War Diary HQ 1ATF, 1-4-160, Vietnam digest 26/29, paras 6 and 13, 28 June to 5 July 1969, pp. 184, 186.
- 63 Ashley Ekins, Head, Military History Section, at 'A symposium to commemorate the 40th anniversary of the Battle of Binh Ba, South Vietnam, 6–8 June 1969'.

THE AUTHOR

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MILITARY HISTORY

SLAUGHTER OF THE INNOCENTS

THE DESTRUCTION OF THE 18TH BATTALION AT GALLIPOLI, AUGUST 1915

TONY CUNNEEN

ABSTRACT

This article outlines the massacre of the 18th Battalion at Gallipoli in August 1914 and argues that the soldiers of that unit were needlessly lost as a result of being sent unprepared into battle and that their Commanding Officer, Lieutenant Colonel Chapman was made a scapegoat for the debacle. The article refers to a number of eyewitness accounts of the battle and provides a rare glimpse into the behind the scenes interactions of those officers responsible for the operation.

There was still something contemptible about the way the 18th Battalion had been sent out to die.¹

THE 18TH BATTALION: NEVER A 'ROMANTIC TRAGEDY'

The Gallipoli campaign during the First World War is a well-worked field of research, but there are still important stories to be told. One such topic concerns the fate of the 18th Battalion (5th Brigade) which came ashore at Anzac Cove on the night of 19–20 August 1915. Within two days of their landing, 750 men of that unit made a frontal assault on a shallow rise known as Hill 60.² Three hundred and eighty three men of the 18th Battalion became casualties in the few hours of that battle. Half of those casualties were deaths. On 29 August another 256 men from the 18th Battalion were wounded or killed on the slopes of Hill 60 in a similarly futile frontal attack. According to these figures, within ten days of arriving at Gallipoli, the 18th Battalion was effectively wiped out as a fighting force.³ The destruction of the unit was indicative of a much wider problem concerning the inadequate preparation of inexperienced reinforcements to Gallipoli, who were flung precipitately into action, often with tragic consequences. The career of its commanding officer, Lieutenant Colonel Alfred Ernest Chapman, is barely mentioned in the *Official History*⁴ of the campaign, yet his experience is worth investigating as an example of a commanding officer faced with unreasonable orders, which he knew would result in the needless deaths of his men.

Tragically, the fate of the 18th Battalion on Hill 60 was not unusual for new arrivals at Gallipoli. After early disasters, novice troops were supposed to have had at least some training, but it appears that the crucial lessons had not been learnt by August. On the 6th of that month, reinforcements for the 2nd Battalion landed, led by the charismatic but foolhardy Anglican Reverend, Lieutenant Everard Digges La Touche. Unlike Lieutenant Colonel Chapman, Digges la Touche saw the war as a holy crusade against wicked Prussian theology and welcomed the opportunity to throw himself and his men into death in battle. Within two hours, his men had been sent into battle at Lone Pine. Many were killed.

While much understandable attention is given to other battles and leaders at Gallipoli, the 18th Battalion's tragic fate in the campaign has not been described to the same extent.⁵ Even the 18th Battalion's Roll of Honour on Gallipoli is marginalised. The long list of those who fell in action is located on the back of the memorial at Lone Pine: a considerable distance from where their remains lie in a mass grave on Hill 60. Signposted as *Bomba Tepe*, or the *Hill of Bombs*, it is a surprisingly small knoll, barely 20 metres in height, covered in pine trees with a well-maintained war cemetery.⁶ It lies just to the north of the long

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ridge, Demakjelik Bair, below the Sari Bair Range. Access by foot to Hill 60 is a rough five kilometre trek north through thick scrub around the base of Bauchop's Hill from Anzac Cove. People rarely visit this spot.

Perhaps the reason for the lack of attention paid to the 18th Battalion at Gallipoli is that its experience did not fit the myth of the 'romantic tragedy' established for the campaign during the war.⁷ The battalion commander, Lieutenant Colonel Chapman, was not a Homeric hero like his fellow lawyers: the Sydney barrister, Colonel Henry Normand MacLaurin, who was sniped within two days of the landing, or the solicitor, Lieutenant Colonel Charles Melville Macnaghten, who proved his gallantry beyond measure at Lone Pine. Perhaps Hill 60 is just too far off the usual pilgrimage routes to excite interest, or maybe simply not enough people know the details of what happened. This account of the chaotic events surrounding the battle tries to do justice to the men who lost their lives in the slaughter.

'A RATHER SENIOR AND ACADEMIC TYPE OF OFFICER'

The 18th Battalion was formed in Sydney in early 1915,⁸ as part of the 5th Infantry Brigade, 2nd Australian Division. The Brigade was commanded by Brigadier William Holmes DSO, who had led the Australian Naval and Military Expeditionary Force (ANMEF) to New Guinea in 1914. Bean described Holmes as 'one of the most eminent of Australian citizen-soldiers.'⁹ While that may be so, Holmes had already been the subject of considerable controversy over the actions of men under his command in New Guinea. There had been questions in the Federal parliament and well publicised courts martial over allegations of 'Loot Plunder and Rapine' by men in the ANMEF.¹⁰ There was international concern over Holmes' decision to have four Germans publicly flogged for their mistreatment of a British Methodist missionary in Rabaul. That investigation was ongoing when Holmes landed at Gallipoli. While he was eventually cleared of the charges in early 1916, the incident was the mark of a man who was impetuous, tough and direct in his approach to soldiering. While he probably did not want another investigation into his command, there was no doubting his bravery. His own death in action in 1917 was the result of his disdain for gunfire.

There have been suggestions of difficulties between Holmes and some of his 18th Battalion officers. According to Bean, Holmes 'failed to obtain in the 5th Brigade a selection which entirely satisfied him.'¹¹ The officers' selection board, operating for the Minister of Defence, 'tended to make a choice of a rather senior and academic type of officer from the citizen forces.'¹² The officers of the 18th Battalion could be described in just such terms. Most were middle-class professionals. The senior officers were members of the New South Wales legal profession.¹³

The commanding officer of the 18th Battalion, Lieutenant Colonel Alfred Ernest Chapman, was a 46-year-old police magistrate from Crows Nest, near North Sydney. He

had served in South Africa in the Boer War with the Bushmen and Mounted Rifles, and subsequently gained a BA/LLB at Sydney University.¹⁴ He had significant militia experience and his various military appointments and promotions over the years had been duly reported in the *Sydney Morning Herald*. He was certainly not unknown in Sydney before he left. Most of the other officers were from Sydney's middle class. Captain Sydney Percival Goodsell, a salesman from Parramatta, was in headquarters group at first, and then commanded a company at Gallipoli. Goodsell, who had served with Brigadier Holmes in the ANMEF, was one of those to emerge from the Gallipoli campaign with his reputation enhanced. He wrote a valuable record of his experiences of the battles.¹⁵

Similarly, the majority of the private soldiers and non-commissioned officers in the battalion came from Sydney and the surrounding regions. Quite a few of the remainder were English-born. Most were working class: labourers, boot makers, miners, boundary riders or fisherman. The majority had joined the AIF between February and May of 1915. Some had only been in the Army a few weeks before they sailed. A number of the troops were ANMEF veterans, but that campaign had been a far cry from Gallipoli. Few of the others had any previous military experience, although the Scottish-born Regimental Sergeant Major, 46-year-old Charles Lamont, had served with the Seaforth Highlanders and been on the Australian Commonwealth Instructional Staff for seven years.¹⁶ He had also been a popular instructor at the Edgecliff Rifle Club in Sydney's Eastern Suburbs.¹⁷ The youngest man in the battalion was around seventeen years of age, the oldest in his forties.¹⁸ These men had been part of a parade by the 5th Brigade in Sydney before the Governor-General, Sir Ronald Munro-Ferguson, in April 1915. They must have seemed invincible, marching in step, in massed ranks, with .303 Lee Enfield rifles carried on their shoulders, in front of a huge, cheering crowd.

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SIGHTSEEING AND ROUTE MARCHES IN EGYPT

The 18th Battalion sailed out of Sydney Harbour onboard the troop transport, *Ceramic*, on 25 June 1915. They arrived in Egypt at the end of July, where they underwent a limited preparation for active service. As occurred with many Australian units, the soldiers in the battalion were not taught how to use or deal with bombs: a problem which would prove fatal at Gallipoli. According to the letters of one soldier, George Stewart, the battalion did little in Egypt, apart from route marches and some sightseeing, in the two weeks before they landed at Gallipoli.¹⁹ It was a manifestly inadequate preparation for battle.

On the evening of 15 August the battalion commenced a series of night moves, travelling by train, then ship, from Egypt to Mudros Harbour on the island of Lemnos. They then sailed on the *Osmanian*, a filthy Egyptian mail boat. Lieutenant Wilfred Addison's diary reveals how uncomfortable these journeys were.²⁰ They were rowed ashore at Gallipoli on the night of the 19–20 August, watching the isolated showers of sparks and flashes from exploding artillery shells and hearing 'the constant reports of isolated rifle fire, with a machine gun joining in the chorus, while a deep bass note was sounded in the distance by a warship supporting the British further north at Suvla Bay'.²¹

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The 18th Battalion arrived on the Gallipoli Peninsula towards the end of a series of great battles known generically as 'The August Offensives'. These actions involved all the Allied troops at different times, in a final series of attempts to break out of their limited beachheads before the onset of winter. The ground before the Anzac trenches was putrid with the unburied remains of Australians who had fallen in the earlier battles for Lone Pine and in the savage, futile charges by the Light Horse at the Nek. The ambitious attacks on Chunuk Bair, Hill Q and Hill 971 on the Sari Bair Massif had failed and been abandoned. As part of the offensive program there had been a British landing at Suvla Bay, intended to help the Anzac forces, but this too had ground to a halt. The High Command was keen to establish a strong link between the Anzac positions and the British positions near the salt lake at Suvla Bay. The intervening, swampy ground between the British and Anzac forces was known as the Anafarta Gap. The 18th Battalion was unaware that it would be precipitately thrown into this series of battles within days of landing, in a textbook example of how *not* to prepare an inexperienced unit for action.

'LIKE A FRESH BREEZE FROM THE AUSTRALIAN BUSH'

The 18th Battalion was on the beach at Anzac Cove at daybreak, 20 August 1915, and supplied bivouacs in the Reserve Gully, just below the Sphinx along North Beach. They were tasked to carry supplies throughout 20 August in that area. Some of the men went for a swim. The noise of heavy gunfire continued in the north. One private soldier, Myles O'Reilly, recorded his surprise at the amount of war-related litter and that 'now and then an odd party of dirty unshaven men in all sorts of uniforms would come down and inspect' the new arrivals.²² The men already at Gallipoli were 'sick and battle-worn'.²³ In his *Official History*, Bean became quite lyrical when he wrote

that the arrival of the ‘fresh troops came to the tired and somewhat haggard garrison of Anzac like a fresh breeze from the Australian bush’. He commented that, ‘These fine troops had made a deep impression upon all who saw them.’²⁴ One veteran Anzac campaigner was quoted as saying the new arrivals were ‘great big cheery fellows whom it did your heart good to see ... Quite the biggest lot I have ever seen.’²⁵ In his personal diary written on Gallipoli, Bean revealed a slightly different version from this breezy official enthusiasm. Privately, he commented favourably on how energetic the new arrivals were but also wrote how unimpressed he was with their officers.²⁶ Lieutenant Colonel Chapman was one of those officers.

Privately, he commented favourably on how energetic the new arrivals were but also wrote how unimpressed he was with their officers.

The 18th Battalion would need strong leaders as they struggled through the dirt and heat, past the cemetery and into their position behind the front line. Men such as Lieutenant Colonel Chapman had much to prove to the Gallipoli veterans. Officers were essentially ‘judged by the test of battle’.²⁷ Using that criteria, Chapman would be found wanting by the battle-hardened Gallipoli veterans, who appeared to have become inured to the sacrifices of front line troops after the reckless bravery of men in recent battles. It was certainly not unknown for battalion commanders to fall in battle. While Chapman may not have been a great battlefield commander, it is possible that he arrived with new eyes, sensitive to the grief the Gallipoli operations had caused to the civilian population in Australia, and could immediately see the chaotic futility of it all.

How should one interpret Chapman’s actions subsequent to the landing? His superior officers condemned his conduct. On the other hand, a case could be made that Chapman was made a scapegoat for the looming debacle by the same officers who ordered it to take place, and that the Official Historian, CEW Bean, consciously or not, went along with it all by failing to be sufficiently critical of these officers. It was too easy to let Chapman go home in disgrace. Admittedly, his traumatised reaction after the battle did not help his cause. This question deserves examination.

MAJOR GENERAL GODLEY TAKES COMMAND

At 1500 hrs on 20 August, the 18th Battalion was ordered inland to Bauchop’s Hill, on the north of the ANZAC position. They arrived at 2100 hrs and set to piquet duty in the trenches. From the records of the 5th Brigade, this would appear to be at least their men’s sixth night of minimal or disrupted sleep. They were exhausted from the long journey and lack of sleep, regardless of how fresh they may have appeared when they arrived. Around 2100 hrs, the entire 5th Brigade was placed under the orders

of Major General Godley, the British-born commander of the New Zealand and Australian (NZ&A) Division at Gallipoli. Godley commanded a combined force of New Zealand, Indian and Australian troops in what appears to have been a fairly ramshackle arrangement with poor supply lines and problematic communication. Furthermore, Godley was resentful at his lack of promotion and ‘detested’ Australians.²⁸ But his immediate problem on 20 August was to link the ANZAC and British forces. The order of battle for his command at that time comprised the NZ&A Division, with the 29th Indian Brigade and units of the 5th Brigade, 2nd Australian Division attached.²⁹ The 18th Battalion was to be part of a much larger force battling on the far northern edge of the ANZAC positions. Hill 60 was the last rise before the Anafarta Gap and the Divisional Command believed it had to be taken if the British were to join up effectively with the ANZACs.

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Allied troops made a desperate attempt to take Hill 60 on 21 August. Elements of the British 10th Hampshire Regiment and The Connaught Rangers, as well as two battalions of the Australian 4th Brigade under General John Monash and two regiments of the New Zealand Mounted Rifle Brigade, attempted to take the hill on that day. Remnants of the 29th Indian Brigade were also involved. Many of the attacking troops were already greatly debilitated by their service at Gallipoli. Dysentery was rife. The attack on 21 August was a hideous experience: men were cut down in the narrow space between the front lines; a scrub fire incinerated some of the wounded. The Turks, protected by a maze of trenches, remained in control of the hill at the end of the day. Scores lay dead. The problem of the Anafarta Gap had not been resolved. Meanwhile, the 18th Battalion had spent 21 August at their positions at Bauchop's Hill, unaware that the battle that they heard to the north would soon include them.

A ‘FRESH BATTALION’ CHOSEN FOR BATTLE

According to the *Official History*, General Cox and Colonel Russell³⁰ decided just before midnight on 21 August that ‘the [Turkish] communication trench on Hill 60 should be carried at dawn, and that a fresh battalion should be used for the task.’³¹ Despite the casualties that they had experienced on that same day, these commanders decided to simply try another frontal attack, uphill, against an entrenched enemy who had protected supply lines and expected just such an action.

The plan was as follows: while the British attacked Scimitar Hill, Green Hill and Chocolate Hills on the northern side of the Anafarta Gap, the 18th Battalion would

be part of a group of British, New Zealand and Australian units which would mount a coordinated attack on the Turkish positions to the south. Considering the fact that seasoned troops had already been decimated on the slopes of Hill 60, it seems a bizarre decision to send out a completely inexperienced unit where others had failed. General Godley was reluctant at first to use the untried 18th Battalion, but Cox and Russell prevailed. Bean admired both Cox and Russell, who he described as ‘careful and able officers.’³² At the time of writing the *Official History*, both these men had significant reputations which Bean did not challenge; in fact, he seems to excuse them for what happened to the 18th Battalion on Hill 60.

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Major Wisdom gave a more detailed version of what happened immediately before the battle.³³ Major Evan Wisdom was the Brigade Major for the 5th Brigade. He was a significant person in his own right, being, at the time of the battle, the sitting member for Claremont in the Western Australian Legislative Assembly. CEW Bean described him as ‘one of the best leaders in the AIF’.³⁴ Wisdom’s account contains detailed criticism of Chapman’s actions and suggests that Chapman was ‘reluctant’ to fight: a heinous criticism of any officer in war, but particularly so in the claustrophobic atmosphere of Gallipoli. He wrote that at 2125 hrs on the evening of 21 August, ‘Lieutenant Colonel Chapman was given orders to have his [18th] Battalion in a state of instant readiness to move at any time of night.’³⁵ This account accords with the 5th Brigade War Diary.³⁶ Wisdom became increasingly critical of Lieutenant Colonel Chapman and describes the tension and confusion that occurred before the attack. Wisdom wrote that at 0015 hrs on 22 August Chapman was told by telephone to be ready to move, and that he responded that ‘his men had turned in and were very tired, having no rest for two days and had been very hard worked’. Being ‘tired’ would not have been a good response for Chapman to make to his orders. Wisdom then added that Chapman ‘appeared to be hesitating at getting his men out’. Reluctance to fight was a terrible accusation to make of anyone at Gallipoli, especially a battalion commander.

A ‘LEISURELY’ PREPARATION FOR BATTLE

Wisdom then accompanied Chapman to the 18th Battalion campsite. Chapman was clearly not one of those firebrands ready to go at the suggestion of an attack. Instead, according to Wisdom, Chapman and Major Arthur McDonald, the second in command, proceeded in a ‘leisurely way to awaken the men’.³⁷ Chapman’s complaint that the men had not been issued rations was dismissed by Wisdom. This refusal

to take care of the men and issue rations shows considerable disregard for their wellbeing. The situation appears to have been very tense, probably dangerously close to Chapman being accused of not obeying orders. According to Wisdom, Chapman had been told to have his men ready, yet Wisdom saw that they were not.

It is at this point that there can be divergent interpretations of Chapman's conduct and his subsequent treatment by his senior officers. Was Chapman wrong to let the men rest, rather than distributing their rations and ensuring they were properly briefed, or was it reasonable for him to assume that in the confused atmosphere of orders and counter orders from unfamiliar commanders, that the 18th Battalion would not be needed? After all, they had just arrived and had no knowledge of where they were to go. Wisdom was certainly critical of Chapman not having his men ready for battle and insisted that the order to be ready to move was in 'no way varied'. However, there was clearly some confusion over different orders given to a variety of officers. One company had been told to go forward, and then go back during the early part of the evening.³⁸ Perhaps Chapman should have checked to see if the orders were correct if he was in doubt. It is also possible that he was intimidated by the unfamiliar officers in charge of him at the time: Godley, Cox and Russell were not necessarily the types of officers to have their orders questioned, especially from a new arrival on the peninsula.

At fifteen minutes past midnight on the morning of 22 August, the 18th Battalion was told to move forward to a position known as the South Wales Borderers Gully to be at the disposal of General Cox.³⁹ The South Wales Borderers Gully was a fold on the far side of Demakjelik

Bair to Hill 60. The men were ordered to carry 200 rounds of ammunition and leave their packs behind. They were to be sent into battle, although at the time Myles O'Reilly and most of the 18th Battalion did not know it.⁴⁰ They did not have sufficient water or food. Goodsell agrees with Bean in reporting that the move was not that straightforward.

It is a long hard slog through thick scrub from Anzac Cove to the vicinity of Hill 60. The men were lost at least once in their trek and 'firing was going on all around' them. Such lack of knowledge was not uncommon at Gallipoli where secrecy was upheld at the expense of soldiers' knowledge of the battle, but it also indicates how unprepared the men were for what was to come. O'Reilly wrote about how tired he was as a result of the night march and lack of sleep.⁴¹

Goodsell said that after they had reached the South Wales Borderers Gully they 'were told to lie down and make [themselves] comfortable ... It was pitch dark and [they] could not see any distance.'⁴² They were told by their guides that 'they were

Wisdom was certainly critical of Chapman not having his men ready for battle...

in reserve and would probably not be required.’⁴³ Then the officers were unexpectedly called forward to an orders group. Bean, in the *Official History*, wrote that a New Zealand officer, Major Powles, gave the final orders for the attack to Lieutenant Colonel Chapman and the company commanders by candlelight. According to Bean, Powles said that the 18th Battalion ‘should assault with bomb and bayonet only. Chapman interjected that they had no bombs; Powles could only reply that they could do the best that was possible without them.’⁴⁴ Considering the importance of bombs in trench warfare, this seems to be an extraordinary dismissal by Powles of a legitimate protest, particularly since the previous attacks had been unsuccessful.

Despite any reservations he may have had about the new arrivals while he was at Gallipoli, Bean is quite restrained in his treatment of Chapman, with none of Wisdom’s criticism appearing in print—

Despite any reservations he may have had about the new arrivals while he was at Gallipoli, Bean is quite restrained...

understandably so as the *Official History* of the Gallipoli campaign, *The Story of Anzac*, was first published in 1924 and Chapman was acting as a Sydney Magistrate at that time.⁴⁵ Chapman was to achieve some prominence in that role until his death in 1933. In fact, that reference to Chapman’s complaint to Powles regarding the lack of bombs is the only mention Bean has of the Sydney magistrate in the *Official History*. Bean does not make any comment exonerating Chapman of blame for the battle, unlike his provision of excuses for Godley, Cox and Russell. Bean appears keen to portray men such as Lieutenant Addison, whose family he knew, as heroic figures. In this vein, Bean wrote that before the battle the young officers of the 18th Battalion ‘had spoken gravely to [the men] of their high duty in the tests they were about to face. Young Lieutenant Addison had said, “I daresay, I shall be one of the first to fall”’⁴⁶ Addison was correct.

HILL 60 – ASSAULT WITH BOMB AND BAYONET ONLY

There was a lot of crowding and confusion amongst the Australian troops when Powles led them from the South Wales Borderers Gully over Demakjelik Bair. They were then formed up in a sunken road behind a hedge of olive trees which gave them some protection below Hill 60. Bean describes how most of the men did not know ‘till that instant that they were to attack at all’.⁴⁷ Goodsell tells much the same story as Bean,⁴⁸ but states that Major Wisdom gave them orders to go out and not go beyond the crest of the hill; presumably Wisdom meant Hill 60, and assumed they would reach it in one rush. Goodsell’s diary entry suggests that Wisdom did

not have a thorough idea of the disposition of the entrenched Turkish forces. No one did, not even the New Zealanders who had captured the southern lower trenches of the hill. The attacking Australians would only find out when they stood up in the open and went forward.

The men were ordered 'to fix bayonets, charge magazines, and extend into two lines'.⁴⁹ That was their preparation for the attack. O'Reilly wrote that 'the Colonel blew his whistle' signalling the charge.⁵⁰ At 0500 hrs, Goodsell got up in almost full daylight and could see the broken earth of the Turkish trenches barely 100 metres in front. He wrote:

As we moved forward we were met with a perfect hail of rifle and machine-gun fire which caused a large number of casualties. A number of Turks were still in the trench when we arrived and who were endeavouring to get out to retire which was rather difficult as the trench had a parapet on both sides too high to surmount in a hurry ... Immediately we arrived in the trenches it was infiladed [sic] by machine-gun fire from a Northerly direction, and bombed from the Eastern Turkish trench on the left. Casualties were then something awful and prevented any further advance ... later an attack was made on the left flank in charge of Major Lane and the men were literally mown down by machine-gun fire as they went towards the Turkish trench in which a number of their men were able to get. A little later they were seen retiring when they were again met with disaster from what appeared to be several machine-guns posted on their left flank.⁵¹

O'Reilly, like other survivors, recorded a similar experience of charging forward with bullets whining and ricocheting off the ground, of men falling and groaning—all the elements of a charge over exposed ground into massed fire. He wrote of 'running for [his] life' to the Turkish trenches, with the Turks running 'for their lives' when the Australians were about a dozen yards away. Another eyewitness in the battalion, George Stewart, told much the same story in his letter home.⁵² O'Reilly stopped in the trench with about half a dozen Turkish dead and had a smoke because he 'knew nothing of what happened a dozen yards away'. Then he realised that 'all was not comparatively well'.⁵³ He acquitted himself well in the battle, shooting steadily at the Turks until he was wounded. Goodsell described an increasingly chaotic time in the captured trenches where false orders to retire 'apparently came from nowhere'.⁵⁴ Some men were killed trying to retreat. There were repeated Turkish attempts to recapture their trenches with violent bombing attacks. The attacks by units on either side of the 18th Battalion were not successful, and as a

Goodsell's diary entry suggests that Wisdom did not have a thorough idea of the disposition of the entrenched Turkish forces.

result, the Australians were left with exposed flanks. Some Turks who had not been ejected from nearby trenches attacked with bombs, which O'Reilly and others noted the Australians did not have. He also wrote that this stage of the battle was 'particularly lively'.⁵⁵

It was now the turn of the second wave to advance in support of the men from the first group, whose survivors, including O'Reilly, occupied part of the easternmost trenches along the lower slopes of Hill 60. The attackers, under the command of Major McPherson, were completely exposed to enfilading fire when Powles ordered them out onto the open field. Bean described how Lieutenant Wilfred Addison jumped up and shouted, 'Come on boys, the next one' and then 'with dying and wounded around him, and machine-gun bullets tearing up the ground where he stood, steadied and waved forward the remnant of his platoon until he himself fell pierced with several bullets'.⁵⁶

Addison died a heroic death, which was duly portrayed as such by Bean.⁵⁷ Bean also describes the other waves of men sent out by Powles 'broken while attempting to deploy'.⁵⁸ It was a massacre in an area only a little larger than a cricket field. Even those men who found some shelter in the captured trench were confronted by Turks, who 'were flinging bombs with impunity among the Australians'.⁵⁹ In Bean's words, the battalion was 'cut to bits'.⁶⁰ Bean's account is much the same as Goodsell's. Less than half of the 750 men in the attack survived without injury. Most were hurt in the first hour. Conditions were terrible for the survivors. George Stewart wrote that he 'did not have a drink from 5.00 am Sunday to 9.00 am Monday' and that his 'lips were all cracked from want of water'.⁶¹

O'Reilly endured the slow and painful return to his own trenches, suffering from thirst and with men dying around him until he was transferred to a hospital ship. He was fortunate.

The many Red Cross Missing and Wounded Bureau reports on those who were lost in the battle support the accounts by Goodsell, O'Reilly and Stewart.⁶² Men such as the 20-year-old solicitor's clerk from Woollahra, Lance Corporal Norman Phillip Scheidel, were killed in the charge, and while his identity disc was retrieved, his body was then lost and has never been identified.⁶³ Eyewitness statements report that men falling from multiple wounds had to be left dying, while the others charged ahead.

There were repeated Turkish attempts to recapture their trenches with violent bombing attacks.

Many of the 'great big cheery fellows' described by Bean on their arrival were lost within thirty minutes...

Some men were killed when they stopped to help others; others were hit as they crawled back to their own lines. There were mentions of men shouting comments such as ‘This is pretty hot!’ just before they were hit. Many of the ‘great big cheery fellows’ described by Bean on their arrival were lost within thirty minutes of their first battle. So great and so sudden was the destruction of the 18th Battalion that families had difficulty comprehending what had happened. Red Cross Missing and Wounded Files include references to mothers not believing their sons were dead or persistent rumours of men as prisoners or sick or wounded and lost in the hospital system. One body never recovered was that of Sergeant Major Charles Lamont, who had insisted on joining his troops in battle. Bean gives a fair but sanitised account of the battle in the *Official History*; he does not mention what went on in the trenches afterwards.

‘RUNNING AROUND LIKE WILD RABBITS’

Major Wisdom provides a fascinating and rare insight into what it was like in the trenches after the killing had stopped, although he does not comment on the casualties or his part in insisting the newly arrived men go out. He picks up his account a few hours after the battle. He reported that he and Brigadier Holmes

went out to the position occupied by the 18th Battalion and visited the trenches and found Lieutenant Colonel Chapman, 2nd in Command and the Adjutant ... huddled together in a trench and the men running around like wild rabbits in the trenches, and the morale of the battalion considerably shaken; no endeavour was being made to calm the men. The Brigadier [Holmes] gave orders that the men should be put to work to dig a communication trench ... to take the thoughts of the men off the previous shaking they had had.⁶⁴

An early handwritten draft of the report stated that ‘the officers were more shaken than the men.’ Chapman may well have been traumatised with shock and debilitated by illness and exhaustion, with the remnants of his shattered command scattered about him, but if Wisdom was correct, he could have been relieved of command on the spot.

While tragic, the experience of the 18th Battalion was no different from that of the Light Horse at The Nek, where Colonel White had been killed in the first few yards beyond the trenches. Perhaps Chapman’s crime was that he was alive and protesting what had happened. Whatever the truth, Bean was also one of those not sympathetic to Chapman.

While tragic, the experience of the 18th Battalion was no different from that of the Light Horse at The Nek...

At the time of the battle, Bean was sick with laryngitis and was generally run down from his time at Gallipoli, so he did not witness the assault first hand. He wrote in his diary that on 23 August 1915 he went into the frontline trenches to where fifty men of the 18th Battalion remained in the line. He then wrote another scathing first hand account of Lieutenant Colonel Chapman's behaviour. Bean wrote:

Every Australian was looking anxiously along his bayonet at the scrub ... [An officer in spectacles] was saying 'quiet boys—quiet lads—I don't want any of you to fire unless he can actually see something to shoot at.' ... I thought the shooting was simply panic. They looked a bit anxious, but they weren't firing and for men who had been at it for 36 hours & who had never been in action before it wasn't bad. The [Turks] might for all they knew have been creeping up—or might have rushed them any moment out of the bush. ... I saw this Col. [Chapman]. He clearly had not the remotest idea of what they had or hadn't done. He was saying in front of the men that they had lost their confidence that it was wicked to put them in tired as they were ... He was sure they had been shot down by the New Zealanders. ... They didn't know the look of a bomb ... It would have been better to put them in & tell them nothing (which I rather suspected is just a bit what the Colonel did for he didn't seem to understand his orders)—'and now they're blaming me for this!' he said in front of them (his troops)—clearly the first thing to be done for the good of a good regiment like this one is to sack Col. Chapman. He said he wouldn't act on his orders like those if he got them again.⁶⁵

'INSULTING REMARKS'

Lieutenant Colonel Chapman was certainly not impressing important people at Gallipoli. Major Wisdom's account reveals how relations between Chapman and his superior officers deteriorated over the ensuing days. According to Wisdom, Chapman tried to resist the next order to attack, given to him on 24 August. Chapman stated that 'his men were done up and needed rest'. Wisdom described the first attack as a 'failed' mission. Brigadier Holmes told Chapman he should try to redeem the battalion's reputation and save himself from 'the mess he was in'.⁶⁶ Holmes was right about the mess for Chapman. His situation continued to deteriorate: Wisdom's account said that Holmes then told Chapman to go to Russell and 'endeavour to explain the unexplainable fault he had made'.⁶⁷

After Chapman had told Colonel Russell of his reluctance to commit his battalion to another attack, Russell made some remarks,

Brigadier Holmes told Chapman he should try to redeem the battalion's reputation and save himself from 'the mess he was in'.

which Chapman ‘considered insulting.’⁶⁸ The two men appear to have had a blazing row. Holmes took Russell’s side, even though he had known Chapman for years. Clearly Chapman was furious over the way his battalion had been treated and wanted to protect them from another pointless attack. Holmes appears to be more concerned with reputation than the lives of his men. Holmes told Chapman that ‘he should have jumped at the chance [to attack] offered for the sake of the Battalion and Brigade, and was not at all surprised at Colonel Russell’s [insulting] remarks.’ The second attack was to go ahead, with the 18th Battalion part of a large scale operation which included the 5th Connaught Rangers, the New Zealand Mounted Riflemen and detachments of the 9th and 10th Australian Light Horse Regiments. The operation eventually claimed 1100 casualties in total.

FURTHER ATTACKS ON HILL 60: 27–29 AUGUST.

At daybreak on 27 August, the ANMEF veteran, Major Lane, led 100 men of the 18th Battalion from the sunken road up and against the network of enemy trenches on Hill 60. Once again, the Turkish machine guns had survived earlier actions; in fact, the attack by the 5th Connaught Rangers had probably alerted them to the likelihood of another charge. The 18th Battalion ‘met a whirlwind of shrapnel and small-arms fire.’⁶⁹ Goodsell followed Lane into battle. It was a similar experience to that of the first attack. He wrote that ‘men dropped like flies’. After charging a Turkish trench, about twenty men remained of the 100 who had attempted to cross no-man’s-land. He described a fearful scene: ‘Shrapnel was falling everywhere, including in the trench, and smashing up the bodies in a frightful way and causing a number of casualties to [his] party.’ Additional men of the 18th Battalion, who had been held in reserve, were committed to the attack over the next two days. The unit eventually suffered another 256 casualties. Barely 100 men of the original 750 who had marched around from Bauchop’s Hill on 21 August were left uninjured after two charges made in a week of action.⁷⁰ George Stewart echoed all other survivors when he wrote that the battles had been ‘hell on earth.’⁷¹ According to an account published by Brad Manera at the Australian War Memorial, the 18th Battalion were ‘for the second time in less than a week ... cut down in waves.’⁷² Bean wrote that ‘it was one of the most difficult actions in which Australian troops were ever engaged.’⁷³ Hundreds of Australian, British, New Zealand, Indian and Turkish bodies lay unburied out in the open. The stench and flies were awful. A number of survivors suffered mental collapse.

Lieutenant Colonel
Chapman’s military career
was one other casualty of
the battle on Hill 60.

Goodsell stayed and fought it out alongside his men throughout the day and night, when they 'were visited by Colonel Russell ... who passed very complimentary remarks about [their] success'.⁷⁴ They held their ground, but Lane had been killed and the summit of Hill 60 was still largely in Turkish control. Goodsell's treatment stood in stark contrast to that of his commanding officer, Lieutenant Colonel Chapman, who is not mentioned again in any of the accounts presented in this paper. It appears that by 29 August he was no longer in effective command of his battalion. For further information as to Chapman's fate we must turn to his service record.

LIEUTENANT COLONEL CHAPMAN – 'NOT SUITABLE TO COMMAND'

Lieutenant Colonel Chapman's military career was one other casualty of the battle on Hill 60. A letter from General Cox written on 29 August put the case against Chapman quite clearly. Cox wrote that he 'did not consider Lieutenant Colonel Chapman fit for the position' of commanding the 18th Battalion.⁷⁵ Major General Legge, commander of the 2nd Australian Division, said he was to be removed due to his 'want of capacity when under heavy fire'.⁷⁶ A few days later, Chapman was allowed to resign 'as an act of grace'.⁷⁷ In modern terms, he could be seen as having made a plea bargain to resign and thus avoid the ignominy of dismissal or court martial. In fact, Major Wisdom's account of the events surrounding the charge on 22 August has the appearance of a statement prepared for an investigation, or even a court martial.⁷⁸ Certainly Lieutenant Colonel Chapman was in a lot of trouble with his superior officers, both before and after the battle. It is hard to be definitive about the degree of justice with which Chapman was treated. At best, it appears to have been perfunctory and dismissive, but could also be seen as an indication of a callous mindset that had taken hold of some of the senior officers by the latter stage of the Gallipoli campaign.

Letters in Chapman's file dated from 29 August to 9 September 1915 from Brigadier Holmes, General Cox and General Godley indicate that they all agreed that Chapman was unfit for command of a battalion and should be relieved of that duty.⁷⁹ A letter from Chapman to Holmes dated 9 September 1915 stated:

For sometime past my health has been such that I have been, and am now, unable to bear the strain of commanding my battalion, and I respectfully request that I may be permitted to relinquish my command on that account.⁸⁰

The records of the 18th Battalion indicate that Chapman resigned both his command and his commission in the AIF on 11 September 1915. Sydney solicitor Major Arthur McDonald was put in command of the 18th Battalion after Lieutenant

Colonel Chapman, but McDonald was reported suffering from dysentery and shock and evacuated from Gallipoli. He returned, sick, to Australia in 1916 and was discharged with a number of other officers.

Chapman was himself evacuated, sick, to Mudros in mid-September 1915. His official diagnosis was colitis, but scrawled beside that in a different hand was 'shock'. Chapman wrote a number of letters to his superiors while in hospital, requesting that he be given his old battalion back, but one hand-scrawled note in his service record stated that he was not to be given any command in any military unit again.⁸¹ It is possible that Chapman realised the shameful position he was in. His appeals for a face-saving reinstatement were refused. Major Wisdom wrote one such rejection himself. Chapman was sent home, medically unfit, in January 1916. Holmes wrote a personal, sympathetic note to Chapman, but did not support his request for reinstatement. Nothing more about Chapman was recorded in his files apart from his relatives asking about the details of his return to Sydney. He returned to his work as a Magistrate. He did not drop out of public view altogether.

...one hand-scrawled note in his service record stated that he was not to be given any command in any military unit again.

REPORTING THE BATTLE

Exact casualties were hard to establish at the time. Many 18th Battalion men were listed as missing. Representatives of the Red Cross Missing and Wounded Bureau searched hospitals, camps and military units across the Middle East, England, France and Australia trying to track down details of the fate of those missing or killed in action. The families received the usual telegrams notifying them of their relative being missing in action, but then nothing official was heard, despite their repeated requests for news. Many cases were not settled until January 1916, when the various Courts of Enquiry held at Tel-el-Kebir in Egypt investigated the unresolved reports of missing men, and found that it was reasonable to suppose them dead. It was a sad postscript to an adventure that had started when the 18th Battalion had paraded with the rest of the 5th Brigade in Sydney in front of 200,000 people on Saturday 24 April 1915, barely five months before their charge at Hill 60.⁸² A year later there were still 150 men not accounted for.⁸³ In February 1916, Evan Wisdom was promoted to lieutenant colonel and given command of the 18th Battalion and led them throughout 1916 and 1917 on the Western Front.

There was an understandable tendency to minimise criticism of soldiers during the war in order to save the feelings of their relatives, and this carried over after the

conflict had ended.⁸⁴ Therefore, the early reports did not give a thorough account of the actions on Hill 60. Bean's report in the *Sydney Morning Herald* on 2 September 1915 mentioned that 'by a fine charge the 18th took one trench but, being unused to bomb warfare, were forced to retire before a bomb attack, which the Turks put up from a trench 20 yards distant'.⁸⁵ The attack was certainly not presented as an epic. Chapman was never mentioned. Bean wrote of the action again in the *Sydney Morning Herald* in October 1915 and mentioned how enthusiastic the men of the 18th Battalion were and how 'Australians should be legitimately proud that there was an instantaneous demand for their services. Everybody seemed to want some of the "new Australians"'. He also mentions the lack of bombs as decisive.⁸⁶ He certainly put it in the best light he could, which may have suited the social and political situation at the time, but this appears to have become the accepted, public, historical record.

There were various memorial services for the families of the 18th Battalion throughout the war. Lieutenant Colonel Chapman is recorded as having attended at least one them. They must have been tragic occasions, particularly since so little was known as about the fate of many of the missing. Friends and supporters of RSM Charles Lamont from the Edgecliff Rifle Club formed a support committee, including the wife of Major Arthur MacDonald from the battalion. In collaboration with the Sydney Tattersall's Club, they raised funds for Lamont's widow and eight children. With the money, they purchased a house in Ryde, which they gave to the family in March 1916. The house still stands on Anzac Avenue.

In 1919 Bean returned to Hill 60. It was an awful sight: the remains of the men of the 18th Battalion 'fairly thick in the stubble field which they had to cross. And in the scrub on the hillside below the first trench which they seized, and along which, knowing nothing of bombs but doing their best with some Turkish ones that had been left there they were presently bombed back'.⁸⁷ The bodies were gathered together and put into a mass grave.

The 18th Battalion received a brief mention in General Ian Hamilton's *Despatches*.⁸⁸ He wrote that on 22 August, the battalion 'carried 150 yards of the trenches, losing heavily in so doing, and were then forced to fall back ...'.⁸⁹ This is faint recognition indeed, when compared to the way he describes how 'the 250 men of the 5th Connaught Rangers excited the admiration of all beholders by the swiftness and cohesion of their charge' on Hill 60 on 21 August, the day before the 18th Battalion went into action.⁹⁰

Bean, in the *Official History*, commented that the failure of the operation was because Russell and Powles 'lacked the realization that the attack upon such a position

...early reports did not
give a thorough account
of the actions on Hill 60.

required minute preparation, and that the unskilfulness of raw troops, however brave, was likely to involve them in heavy losses for the sake of results too small to justify the expense.⁹¹ This was certainly gentle criticism, and as if to avoid them gaining any further opprobrium, he also describes them as ‘careful and able officers.’⁹² That was the second time in only a few pages of the *Official History* that Bean used such a phrase to describe the officers who ordered the attack. Colonel Russell, who was directly responsible for issuing the orders, was mentioned on both occasions.⁹³ Perhaps this surviving officer’s reputation made it difficult to be too critical at the time, but in hindsight he warrants some re-evaluation for the fact that he was still sending raw troops into battle four months after the campaign had begun.

They were not well led because their battlefield commanders were not properly briefed, had not reconnoitred the area, and were themselves inexperienced.

REQUIEM

It is hard not to feel some sympathy for the men of the 18th Battalion. They had not been in the front line apart from some limited piquet duty. They were not well led because their battlefield commanders were not properly briefed, had not reconnoitred the area, and were themselves inexperienced. Their rations were only hastily distributed, if at all. Lastly, they had no bombs. The scene was set for a massacre. They simply did not know the way around the battlefield. While they were adjusting to the strange situation of Gallipoli, they were sent into battle against an entrenched enemy. Despite the obvious failure of the first charge, just a few days later they were sent out again. There is no battalion history to commemorate what happened, no commemoration and only passing mentions in books or papers or memorials.

In August 1918 Chapman remarried at St Stephens in Phillip Street Sydney. His best man was Captain Hinton, his adjutant at Gallipoli. Among the officers who formed the arch of swords was Major Goodsell, who had also led his men into action on Hill 60. Goodsell was wearing the *Croix de Guerre* he had been awarded for his actions at the battle at Pozieres.⁹⁴ It is unlikely that Goodsell and Hinton would maintain such contact if they held hard feelings towards Chapman concerning the massacre. There is considerable evidence that the men of the 18th Battalion did not blame their colonel for the disaster. Oral tradition amongst members of the battalion indicated that Chapman had been harshly treated in order to shield those above him.⁹⁵ Joe Maxwell VC MC* DCM, who survived the attack on Hill 60 with the 18th Battalion and served throughout the war, shared this opinion of the way Chapman had been treated.⁹⁶

After the war the 18th Battalion was reformed and became known as *The Ku-Ring-Gai Battalion*, based at Pymble on Sydney's North Shore. Over the intervening decades there has been minimal attention given to the 18th Battalion at Gallipoli. These days Hill 60 is covered in pine trees. The hedge through which the 18th Battalion blundered is a now a mature stand of olives. There are crops on the field across which the men attacked. Human bones can easily be found in the soil.⁹⁷ There are 788 bodies in the cemetery on Hill 60. Six hundred and ninety-nine of them are unidentified. Their fate deserves recognition. Hopefully, further research will do justice to the men of the 18th Battalion who went to Gallipoli and are still there today. In his memorial address at an anniversary service for the 18th Battalion in Sydney's St Andrew's Cathedral on 22 August 1920, the Reverend JH Chasleing quoted from the 26th Chapter of St Matthew, Verse 8: 'In what purpose was this waste?' It is a fitting epitaph to the tragedy.⁹⁸

ENDNOTES

- 1 Les Carlyon, *Gallipoli*, Macmillan, Sydney, 2001, p. 485.
- 2 Not to be confused with the Hill 60 on the Western Front in Belgium.
- 3 CEW Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, Angus and Robertson, Sydney, 1924, pp. 744, 761.
- 4 Ibid, p. 740. There is only one brief mention in over ten pages on the attacks.
- 5 Brad Manera 'Hill 60 – the last battle: 29 August 1915', Australian War Memorial Conference paper <http://www.awm.gov.au/events/conference/gallipoli_symposium/manera.asp> accessed 14 February 2007.
- 6 I am indebted to Professor George Ramsey-Stewart for his advice concerning the geography and relative position of Hill 60.
- 7 Les Carlyon, 'Gallipoli in a Nation's Remembrance', Australian War Memorial Anniversary Oration 11 November 2004, <<http://www.awm.gov.au/events/talks/oration2004.asp>>
- 8 The battalion was disbanded after the war, then reformed in the 1920s and designated 'The Ku-Ring-Gai Battalion' in recognition of the number of recruits who came from that area in the northern suburbs of Sydney.
- 9 Bean, *Official History of Australia in the War of 1914–18*, p. 713. Holmes was killed by a chance shell burst in July 1917 while showing the Ypres battlefield to NSW Premier WA Holman.
- 10 'Australians in Rabaul – Serious Allegations', *The Argus*, 23 April 1915, p. 8. There was considerable attention to these issues and they are mentioned in *The Hobart Mercury*, 18 May 1915, p. 6; *Sydney Morning Herald*, 29 January 1915, p. 6. See also *Sydney Morning Herald*, 13 May 1915, p. 6; 1 April 1916, p. 18.
- 11 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 21.

- 12 Ibid, p. 21.
- 13 Details of soldiers are taken from the Service Records available on National Archives of Australia <<http://www.naa.gov.au>> Series Number B2455, accessed 2005–09.
- 14 ‘Military Wedding’, *Sydney Morning Herald*, 15 August 1918, p. 4. It is worth noting that Chapman is not mentioned in the Honour Roll of the Sydney University Law School.
- 15 SP Goodsell, Copy of the Diary of Captain SP Goodsell Commanding “C” Coy, 18th Battalion, AIF, 21–30 August 1915 inclusive. Located with the 5th Brigade War Diary, August 1915, Australian War Memorial <<http://www.awm.gov.au/diaries/ww1/folder.asp?folder=1127>>
- 16 Charles Robert Lamont, Service Records, National Archives of Australia <[http://www.naa.gov.au/index/Series number B2455](http://www.naa.gov.au/index/Series%20number%20B2455)>
- 17 ‘Home for a Hero’s Family’, *The Sydney Morning Herald*, 16 March 1916, p. 5.
- 18 18th Battalion, Embarkation Roll, Australian War Memorial.
- 19 George Stewart, Letters to parents in George Ramsey-Stewart, *Finding George*, self-published family history, courtesy of the author, pp. 106–09.
- 20 Wilfred Addison, Diary for August 1915.
- 21 Myles O’Reilly, ‘A Letter from Blighty to Dowell O’Reilly’, 1915, in Tom O’Reilly, *Racegoer*, A privately published series of family letters, articles and reminiscence, Gerringong, 1996. A copy of this book was given to the author on 24 December 2009 by Tom O’Reilly. The original letter was donated by Tom to the Australian War Memorial in 1999 and is available through their collection, IReference Number: PR02014 letter from Myles O’Reilly, p. 2.
- 22 Ibid.
- 23 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 733.
- 24 Ibid., p. 739.
- 25 Ibid.
- 26 CEW Bean, Personal Diary, Gallipoli, August 1915, Item Number: 3DRL606/16/1, Australian War Memorial Website <http://www.awm.gov.au/collection/war_diaries/cew_bean/folders.asp?type=Diary>
- 27 Bill Gammage, *The Broken Years: Australian Soldiers in the Great War*, Penguin Books, Melbourne, 1980, p. 89.
- 28 David W Cameron, *Sorry Lads, but the Order is to Go: The August Offensive, Gallipoli: 1915*, UNSW Press, Sydney, 2009, p. 23.
- 29 I am indebted to David Cameron for his advice on this matter.
- 30 Later Major General Sir Andrew Russell.
- 31 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 739.
- 32 Ibid., p. 740.

- 33 Brigade Major Wisdom, who later commanded the 18th Battalion, wrote a handwritten and a typed version of the events 21 to 29 August 1915. They are signed by him but are untitled and located amongst the personal files of Lieutenant Colonel Alfred Chapman in the National Archives of Australia (NAA).
- 34 Bean, *Official History of Australia in the War of 1914–18, Vol. III, The AIF in France, 1916*. Angus and Robertson, Sydney, 1941, p. 662. Wisdom would later command the 18th Battalion in France.
- 35 Wisdom, 'Events of 21 to 29 August 1915', NAA, p. 2.
- 36 5th Brigade War Diary, Australian War Memorial Website, <<http://www.awm.gov.au>>, p. 8.
- 37 Wisdom, 'Events of 21 to 29 August 1915', NAA, p. 2.
- 38 Goodsell, Copy of the Diary of Captain SP Goodsell, p. 1.
- 39 5th Brigade War Diary, p. 7.
- 40 O'Reilly wrote that they had heard 'rumours of an attack' and watched a distant battle but thought that the 18th Battalion would not be needed.
- 41 O'Reilly, 'A Letter from Blighty to Dowell O'Reilly', p. 3.
- 42 Goodsell, Copy of the Diary of Captain SP Goodsell, p. 2.
- 43 Ibid., p. 2.
- 44 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 740.
- 45 Hilary Golder, *High and Responsible Office: A History of the NSW Magistracy*, Sydney University Press, 1991, p. 222. Chapman's career as a Magistrate is well covered in the *Sydney Morning Herald* of the 1920s and 1930s.
- 46 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 739n.
- 47 Bean, Personal Diary, Gallipoli, p. 240. In 1919 CE W Bean returned to Gallipoli and walked over the battlefields. One of those he visited was the slopes of Hill 60 where the 18th Battalion were, in his words, 'cut to bits'.
- 48 Goodsell, Copy of the Diary of Captain SP Goodsell, p. 2.
- 49 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 741.
- 50 O'Reilly, 'A Letter from Blighty to Dowell O'Reilly', p. 4.
- 51 Goodsell, Copy of the Diary of Captain SP Goodsell, p. 2.
- 52 Stewart, Letter to parents in *Finding George*, pp. 65–67.
- 53 O'Reilly, 'A Letter from Blighty to Dowell O'Reilly', p. 4.
- 54 Goodsell, Copy of the Diary of Captain SP Goodsell, p. 2.
- 55 O'Reilly, 'A Letter from Blighty to Dowell O'Reilly', p. 5.
- 56 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 739.
- 57 Lieutenant Addison's mother became Secretary of the 18th battalion Comforts Fund and was an energetic organiser of fundraising stalls on Circular Quay as well as other operations.

- 58 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 742.
- 59 Ibid., p. 743.
- 60 Bean, Personal Diary, Gallipoli, p. 241.
- 61 Stewart, Letter to parents in *Finding George*, p. 66.
- 62 These records are available on the Website of the Australian War Memorial, First World War Red Cross Society Wounded and Missing Enquiry Bureau Files, <http://www.awm.gov.au/research/people/wounded_and_missing/index.asp>
- 63 Lance Corporal Norman Scheidel Red Cross Missing and Wounded File Australian War Memorial
- 64 Wisdom, 'Events of 21 to 29 August 1915', NAA, p. 2.
- 65 Bean, Personal Diary, Gallipoli.
- 66 Wisdom, 'Events of 21 to 29 August 1915', NAA, p. 3.
- 67 Ibid.
- 68 Ibid, p. 2.
- 69 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 752.
- 70 Exact numbers of soldiers of the 18th Battalion at Gallipoli are hard to establish, but it appears that around 1000 landed and some 250 of these were held in reserve during the battle.
- 71 Stewart, Letter to parents in *Finding George*, p. 66.
- 72 Brad Manera, 'Hill 60 – the last battle: 29 August 1915', Australian War Memorial Website <https://www.awm.gov.au/events/conference/gallipoli_symposium/manera.asp>
- 73 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 747.
- 74 Goodsell, Copy of the Diary of Captain SP Goodsell, p. 4.
- 75 Cox, Letter to Chapman, Lieutenant Colonel AE Chapman File, NAA.
- 76 Legge, quoted in CD Coulthard-Clark, *No Australian Need Apply*, Sydney Allen and Unwin, 1988, p. 124.
- 77 Holmes, Letter to Chapman, Lieutenant Colonel AE Chapman File, NAA.
- 78 I am indebted to Jeffrey Kildea for his invaluable advice on this matter.
- 79 Letters from Holmes, Cox and Godley in Lieutenant Colonel Chapman File, NAA.
- 80 Letter from Chapman to Holmes, 9 September 1915, Lieutenant Colonel Chapman File, NAA.
- 81 Unsigned handwritten note in Lieutenant Colonel Alfred Ernest Chapman's Service Records.
- 82 'Grand parade of Troops', *Sydney Morning Herald*, 26 April 1915, p. 5.
- 83 The Returned Soldiers Association, *Anzac Memorial*, Sydney, 1916, pp. 42–43.
- 84 Cheryl Mongan and Richard Reid in *We Have Not Forgotten*, Yass and districts war 1914–1918 Milltown Research and Publications, Yass, 1998, pp. 100–04, record a number of letters to the Addison family focusing on Wilfred Addison's bravery while avoiding any significant mention of the mistakes that caused his death, although one does allude to the fact that there was a blunder.

- 85 'Suvla: Steady Advance Against Enemy' *Sydney Morning Herald*, 2 September 1915, p. 96.
- 86 CEW Bean, 'Story of a Great Fight', *Sydney Morning Herald*, 14 October 1915, p. 5.
- 87 Bean, Personal Diary, Gallipoli, pp. 240–41.
- 88 General Hamilton was Commander in Chief of the Mediterranean Expeditionary Force.
- 89 General Ian Hamilton, 'Dispatches' in *The Men of Anzac*, *The Anzac Book*, Cassell and Company Melbourne, 1916, p. 92.
- 90 General Ian Hamilton, 'Dispatches', p. 92.
- 91 Bean, *Official History of Australia in the War of 1914–18, Vol. II, The Story of Anzac*, p. 744.
- 92 *Ibid.*, p. 744.
- 93 The 18th Battalion was mentioned in the 5th Brigade War Diary on 23 August when they were reported to be in reserve, and with no casualties reported. There was no mention of the attack on 22 August in the War Diary until 25 August when there was a report of a court of enquiry being 'convened to investigate breach of discipline on morning of 22nd when mules carrying ammunition requisition for Major Short of the 17th battalion when 1 man was seriously injured & 4 mules killed...' The casualties in the 18th Battalion were again not mentioned. No casualties were reported in the 18th Battalion until 27 August. On that date, there was a report dedicated to the 18th Battalion casualties for the period 21 to 25 August. The report mentioned 46 killed, 195 wounded and 142 missing. The overall number of casualties was approximately correct, but there were far more dead than reported. On 28 August members of the battalion ventured out to search for bodies and collect identity discs and paybooks, buried some of the fallen and took notes on their location. Many bodies were lost forever. It would appear that the 5th Brigade war diarist did not know what was happening to the 18th Battalion.
- 94 'Military Wedding', *Sydney Morning Herald*, 15 August 1917, p. 4.
- 95 I am indebted to Professor George Ramsey-Stewart for his valuable insights into this topic.
- 96 J Maxwell, *Hell's Bells and Mademoiselles*, Angus & Robertson, Sydney, 1941.
- 97 Professor George Ramsey-Stewart, Head of Surgical Anatomy at Sydney University, identified some of these bones during his examination of the battlefield in 2008.
- 98 'Hill 60: Commemoration Service', *Sydney Morning Herald*, 23 August 1920, p. 9

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REVIEW ESSAY

BARDIA: MYTH, REALITY AND THE HEIRS OF ANZAC

COLONEL DARREN KERR

Craig Stockings, *Bardia: Myth, reality and the heirs of ANZAC*, UNSW Press, Sydney, 2009.

ABSTRACT

On 3 January 1941, Australian soldiers led an assault against the Italian colonial fortress town of Bardia. Two days later, after fifty-five hours of heavy fighting, the position fell to the Australians in a resounding victory. At a cost of 130 killed and 326 wounded, the Australians captured around 40,000 Italian prisoners and large quantities of arms and equipment. The success at Bardia was considered to be one of the greatest military feats in Australian history. But despite both the scale and significance of this monumental success, the Battle of Bardia has been largely neglected by historians and is not well known to Australians.

The capture of Bardia in North Africa by the Australian 6th Division should be remembered as one of Australia's finest military achievements. Sixteen thousand untried Australian infantry, supported by artillery and a small number of British tanks, decisively defeated approximately 40,000 Italians holding a strongly fortified position, with a loss of only 129 killed and 329 wounded. For a

short period in January 1941, Bardia was probably as well known to Australians as Gallipoli, Mont St Quentin and other feats of Australian arms. Today, however, few Australians have heard of Bardia.

Craig Stockings, Senior Lecturer in History at the Australian Defence Force Academy, has written *Bardia: Myth, reality and the heirs of ANZAC* with the dual purpose of shining a brighter light on this largely forgotten battle, while also examining in detail why the Australians were so successful. Stockings' ADFA web page notes that his primary areas of interest are 'operational analysis and uncovering the battlefield "truth" too often obscured by the distorting effect of Anzac mythology'. This book sits squarely in both of those areas; although it could be asked how a forgotten battle can be obscured by the distorting effect of Anzac mythology.

Bardia is divided into three parts; 'The Setting', 'The Battle' and 'The Explanation'. The first part, 'The Setting', is the lightest part of the book and is a relatively quick skim through the circumstances that led Australians to attack Italians in North Africa. This includes a short summary of the historical circumstances leading to the Second World War, the raising and training of the Australian 6th Division, the opening movements in North Africa and a description of fortress Bardia itself. It closes with a chapter on planning the Bardia assault: of interest because Australian officers planned the attack. Despite containing little new research, it is well packaged, informative and readable.

In this opening part, Stockings notes that 'a significant proportion of 6 Division's recruits, probably more than in subsequent formations, held the Anzac tradition and their potential involvement with it in respectful awe'. While my grandfather, who served in the 8th Division, may disagree with Stockings' comment on the greater influence of the Anzac tradition on the 6th Division, the motivating power of the Anzac legend (or myth) is an important theme in Australia's military history and Stockings is right to discuss its influence at Bardia. However, this also introduces my one real gripe with the book: Stockings is at such pains to debunk 'myths of Australian invincibility', which he blames on the Anzac myth, that he deliberately, or otherwise, downplays the motivational power of this Anzac heritage. Napoleon allegedly said that 'the morale is to the materiel as three is to one' and the motivating influence of Anzac on 6th Division soldiers should not be disregarded. I will return to this theme later.

The second part of the book offers a detailed description of the battle for Bardia. Well researched and written, Stockings captures the battlefield manoeuvres, the quality of senior and junior leadership, decisive actions at key moments, fluctuations

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in fortune and the occasional moments of individual bravery that influenced the outcome of the battle (although that outcome appears to never have been in serious doubt). Stockings' comments on the attack against Post 11 by Lieutenant Colonel Godfrey's 2/6th Battalion are probably the most contentious section. Stockings has separately written an article on this topic for the *Australian Army Journal*, titled 'Deadly Pride and the Infamous Case of "Post 11"'.¹ Anyone who has read that article will not be surprised by the arguments in *Bardia*. Stockings blames Godfrey's poor judgment and leadership for turning a diversionary attack into an unnecessary frontal assault, which resulted in the deaths of sixty-four Australians and the wounding of many more, for no operational value. In 'Deadly Pride', Stockings reveals his low opinion of the Anzac heritage by commenting acerbically that 'true to the Anzac tradition, the ill-fated attack on Post 11 was quickly transformed from a low point of command and tactical failure to representing a high point of Australian fighting spirit'. Anzac has always been an easy target for those who want to criticise the 'defeat into victory' *mythos*. Of course, this observation does not provide a defence for Godfrey; Stockings mounts a strong case against both him and his brigade commander, Brigadier Savage.

Stockings notes in his introduction that the third part of *Bardia*, titled 'The Explanation', 'is the most important part'. Here, he provides his answers as to 'why the Australians were so successful beyond time-honoured Anzac mythology or ethnic slurs against the Italian enemy'. This is a fascinating section, even if one does not agree with all of Stockings' assertions. Seeking to look beyond what he calls 'the obscuring effect of Anzac mythology', Stockings examines a number of factual explanations that would have predicted that the Australian attack would be successful, even before they crossed the line of departure.

This part opens with a chapter titled 'Time-Honoured Nonsense', in which Stockings gives free-rein to his attack on the Anzac legend, particularly criticising the suggestion that somehow the soldiers of the 6th Division were innately superior to the Italians, simply by virtue of being Australian. 'For too many authors', Stockings writes, 'brawny, sun-tanned Australian infantrymen found success because they were brawny, sun-tanned Australian infantrymen'. He snipes at Peter Fitzsimons (why is it that so many academics seem jealous of Fitzsimons' literary success?) and catalogues others who have allegedly fostered the myth of Australian invincibility set against Italian cowardice and innate military ineffectiveness. Not surprisingly, he ignores authors who do not fit his agenda. The 1995 *The Oxford Companion to Australian Military History*² notes that during the First Libyan

Anzac has always been an easy target for those who want to criticise the 'defeat into victory' *mythos*.

Campaign, during which Bardia took place, ‘the Italian army fought hard and well... [but] suffered from equipment and leadership deficiencies while operating at the end of a long and vulnerable supply line...’. Similarly, Glenn Wahlert’s *The Western Desert Campaign 1940–41*,³ published in 2006, observes that ‘certainly Bardia was not the walkover many have come to think. In the first few hours the Italian defenders put up a staunch and aggressive resistance...’.

None of this is to say that Stockings’ research is not thorough (a 16-page bibliography is hard to argue with), but rather that this is a book written with an agenda and should be recognised as such, up front, by any prospective reader. (But, of course, let he without an agenda cast the first stone!)

So to what does Stockings attribute such a decisive victory? Logistics, equipment and leadership provide the simple answer, and in the concluding chapters of *Bardia*, Stockings looks at each of these in detail. Here, his qualities as a historian come to the fore. Meticulously researched, factually documented and well argued, these are compelling chapters. Chapter twenty, titled ‘Something is wrong with our army...’ is Stockings’ attempt to explain the largely abysmal battlefield performance of the Italians, while avoiding ethnocentric stereotypes, particularly allegations that the Italians lacked an aptitude for battle. He identifies the poor standard of Italian military training and non-existent battlefield indoctrination and contrasts this with the high standard of both available to the Australians (again, the 8th Division might disagree). Quite rightly he points out that this led to ‘a wide gap with respect to basic tactical proficiency’ between the two opponents at Bardia.

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Similarly, the Australians enjoyed superior military intelligence, which gave them a detailed understanding of Bardia’s defences when planning their attack. Again, this is well covered by Stockings (but it does remind one that there is a good book yet to be written on Australian military intelligence in the Second World War).

Stockings saves a couple of pages at the end of the book to briefly discuss the issue of morale. Clearly not a proponent of Napoleon’s three-to-one axiom, Stockings argues that morale in the military context is both misunderstood and, by implication, a grossly over-valued commodity. His view is that morale is ‘as much an effect as it is a cause’ and merely represents the sum of the various factors—training, equipment, logistics, intelligence and so on—that exist within a military formation. Compared with the well-researched and convincingly argued earlier chapters, Stockings’ discussion of morale is extremely thin for a military historian.

He may not give much credence to morale as a combat multiplier, but he ignores a vast library of military history that suggests otherwise.

By downplaying morale as a factor, Stockings is able to downplay the impact of the Anzac legend on the men of the 6th Division. While he is surely correct in observing that the Bardia victory was not achieved through some unbeatable Australian predisposition for war, my view is that this invincible stereotype is not key to the Anzac legend, or to the influence it has had on successive generations of Australian soldiers.

For the Australian Army, the Anzac legend has not been evidence that every Australian soldier is an invincible warrior, but rather it has offered an ideal to live up to. Anzac has provided both a benchmark for performance and a source of motivation, guiding inexperienced Australians who face combat for the first time. Gavin Long notes in his 1973 work, *The Six Years War: Australia in the 1939–45 War*,⁴ that ‘to many Australians, as diaries and letters revealed, this battle [Bardia] had been a test of their equality with the men of the old A.I.F. and they felt they had passed the test’. The former Chief of Army, Lieutenant General Peter Leahy acknowledged the importance of the Army’s Anzac heritage with his ‘I am an Australian Soldier’ initiative. The nine core behaviours were certainly not unique to Australian soldiers, but they tapped into an Anzac heritage that the Australian Army is proud to be a part of. It is easy to mock the Anzac legend and poke holes in the myths (for instance, few soldiers were true heroes at Gallipoli) but it continues to motivate Australian soldiers in Timor-Leste, Iraq and Afghanistan, just as it did for those at Bardia. Overstating the legend should be avoided, but so should an underestimation of both its import and value.

Overall, *Bardia: Myth, Reality and the Heirs of ANZAC* is a worthy addition to any library and definitely worth a read. Stockings has set out to prod a few sacred cows and I can attest that he has succeeded. However, while a reader may not agree with everything in this book, they will certainly come away better informed about a defining moment in Australia’s proud military history.

ENDNOTES

- 1 Craig Stockings, ‘Deadly Pride and the Infamous Case of “Post 11”’, *Australian Army Journal*, Vol. VI, No. 2, Winter 2009.
- 2 *The Oxford Companion to Australian Military History*, edited by Peter Dennis, Jeffery Grey, Ewan Morris, Robin Prior and John Connor (a reasonable selection of military historians, by any measure), Oxford University Press, Melbourne, 1995.
- 3 Glenn Wahler, *The Western Desert Campaign 1940–41*, Army History Unit, Canberra, 2006.
- 4 Gavin Long, *The Six Years War: Australia in the 1939–45 War*, Australian War Memorial and the Australian Government Publishing Service, Canberra, 1973.

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REVIEW ESSAY

CALLING OUT THE TROOPS

DR HUGH SMITH

Michael Head, *Calling Out the Troops: The Australian military and civil unrest: the legal and constitutional issues*, Federation Press, Sydney, 2009.

ABSTRACT

This review essay examines the arguments of a new book on the use of the ADF to deal with civil unrest within Australia. Several arguments are set out which point to a growing capacity and inclination on the part of governments to use the ADF for such purposes. Various factors that constrain such use are also examined, some of them relatively weak. At all events, the topic is an important one that deserves close consideration by both the general public and the armed forces.

Can the government be trusted to use the Australian Defence Force legally and wisely? Can the ADF itself be trusted to respect civil liberties? *Calling Out the Troops* examines the complex legal and constitutional issues relating to the use of the ADF for domestic security purposes broadly defined. More specifically, it examines what the author terms ‘call out of the Australian Defence Force ... *against* citizens’ (p.2, emphasis added). Michael Head is concerned about the growing use of the ADF for such purposes—whether or not it is formally ‘called out’ by the Governor-General.

The problem is that governments, rather than seeing use of the armed forces for domestic security as a last and reluctant resort, may find the ADF an increasingly convenient and effective instrument of policy. Current insecurities seem to be encouraging this trend not only in Australia but also overseas. The 'war on terror' in particular has helped justify turning to the military in the eyes of the public. For this is a war of 'infinite duration' (p. 216) and it threatens major violence in the very fabric of Australian society. The need to defend porous borders against illegal arrivals further fuels community anxieties and increases readiness to invoke military responses.

It is also the case that the ADF is a useful and versatile instrument for governments. Australia's armed forces have a wide range of capabilities that can be rapidly and efficiently deployed, a strong culture of obedience to political direction, and a degree of separation from the civilian judiciary in the event of criminal charges against its members. It also has long experience of constabulary operations in many countries. As Head sees it, the ADF's experience of 'policing' in Afghanistan, Iraq, Timor-Leste, the Solomon Islands and elsewhere has left military personnel more psychologically prepared and better trained to undertake constabulary action within Australia (p. 89).

REASONS FOR CONCERN

Calling Out the Troops subscribes to the well-established but often ill-defined tradition in Western democracies that governments must be constrained in their use of the armed forces by constitutions, laws and conventions and by countervailing institutions, especially parliament and the judiciary. The danger is that, left unchecked, the executive will use control over the military to reinforce its political position at home, infringe civil liberties and undertake actions which are difficult to call to account in courts of law, including the use of lethal force against citizens. Ultimately the military may be used to target not just serious terrorist threats but 'social unrest and political dissent' (p. 16).

It may well be that governments do not intend to misuse the armed forces in this way. The pursuit of domestic security is a necessary and proper policy but it may blind national leaders, the general public and the media to the costs incurred in terms of political-military relations, individual rights and the separation of powers. There is a danger of 'creeping militarisation' that will 'accustom ordinary people

Ultimately the military may be used to target not just serious terrorist threats but 'social unrest and political dissent'.

to the sight of troops on the streets' (p. 221). Any moves to extend the power of governments to make use of the ADF in domestic security, Head argues, must be met with suspicion and distrust.

Several current trends underpin this concern. First, there has clearly been greater use of the ADF to uphold domestic security in recent years, and not just since 11 September 2001. The ADF began to enhance its counter-terrorism capabilities in the 1990s, and over 4000 military personnel were assigned to support security at the 2000 Sydney Olympics. As in other Western democracies, Australian governments rapidly overcame any historic reluctance to use troops in this way, turning readily to the ADF to deal with actual and potential internal disorder, terrorism and border protection. It is now the norm, for example, to call on the ADF to assist in security at major sporting events and international meetings held in Australia. The Labor Government elected in 2007 has continued this practice.

Second, in response to government policy more ADF capabilities have been directed towards domestic security. After a review in 1997 a unit was established to deal with chemical, biological and radiological threats and the SAS was given more capacity to resolve terrorist incidents onboard a ship underway. After 11 September 2001, major developments took place: an Incident Response Regiment was set up to deal with a wide range of man-made and natural disasters, a second Tactical Assault Group was established in Sydney, and a two-star Special Operations Command was created. Reserve Forces were also brought into play. Most notably, six Reserve Response Forces (not Ready Reserve Forces! pp. 84, 88) consisting of 156 personnel were set up in most capital cities to be available for domestic security tasks at 28 days' notice. Head also finds significant the ASPI Strategic Insights paper, *Australian Domestic Security: The Role of Defence*, November 2006, for its argument that the ADF should adapt its culture and embrace domestic security as 'core business'.

Third, amendments to the Defence Act in 2000 and especially in 2006 spell out, and arguably expand, what were formerly rather vague and indeterminate powers available to the government to employ the ADF for domestic security purposes. The Constitution provided for such action at the request of the states against 'domestic violence' (a term still undefined, but taken from the US Constitution where it is intended to mean 'insurrection') while subsequent practice established that the federal government could use its executive powers under the Constitution to deploy the armed forces in protection of its own interests. The 2006 legislation now permits the government to use the ADF not only to defend 'Commonwealth interests' against actual or potential violence but also to protect

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designated ‘critical infrastructure’ which can include such things as physical facilities, information technologies and communication systems—whoever they belong to. Lethal force can thus be used to protect not only life but also private property.

In this light almost anything the federal government deems to be relevant to national security, it appears, might justify call out of the ADF. Thus acts of terrorism can easily be considered ‘domestic violence’, giving wide authority to the Commonwealth to resort to the use of the ADF. Significantly, terrorism itself has been widely defined in the raft of anti-terrorism legislation passed since 2001, and looks likely to be widened even further to include ‘psychological terrorism’. As Head points out, this legislation makes no distinction between serious and minor acts of terrorism, perhaps because threats are as defined by governments which can easily exaggerate them (p. 149).

Fourth, the actual procedure for formally calling out forces in Australia has been streamlined by the amendments of 2000 and 2006. Where once it required a formal request from the Prime Minister to the Governor-General to sign an order to call out the armed forces (as in 1978 to protect visiting Commonwealth Heads of Government after the Hilton hotel bombing), now in a ‘sudden and extraordinary emergency’ an order may be made by the Prime Minister alone, or by the Defence Minister and the Attorney General, or by one of these plus the Deputy Prime Minister, Minister for Foreign Affairs or Treasurer. There is no definition of what constitutes a ‘sudden and extraordinary emergency’ and the order can be made by a simple phone call. Nor is there any requirement to recall parliament in the event of a call out.

Fifth, the ADF itself has been granted wider and more explicit powers. The Chief of the Defence Force (CDF) can now be given a standing order directly by authorising ministers (as well as by the Governor-General) to deploy the ADF in ‘specified circumstances’. Whether those circumstances have come into existence would be a matter for judgment on the part of the CDF. The Defence Act does expressly forbid the CDF from stopping or restricting any ‘protest, dissent, assembly or industrial action’ but immediately qualifies this by allowing such action if ‘there is a reasonable likelihood of the death of, or serious injury to, persons or serious damage to property’.

The specific powers granted to members of the ADF on call out are also widely defined. Under command they may recapture a location or thing; prevent, or put an end to, acts of violence; and protect persons from acts of violence. Given that the term ‘act of violence’ is not defined and could be interpreted very loosely, almost any action by the ADF might be justified. The amendments to the Defence Act also set out ‘special powers’ for military personnel such as freeing hostages, searching

...once called out, military personnel are entitled to use force if they have ‘reasonable grounds’...

individuals and premises for dangerous objects, detaining suspected persons (to be handed over to the police as soon as practicable), and controlling the movement of people and means of transport. In certain circumstances, ADF personnel may be empowered to require individuals to answer questions or produce documents (subject to penalty for failure to comply), demand that a person operate a vessel or aircraft, or 'compel' obedience to directions.

The current legislation also states that once called out, military personnel are entitled to use force if they have 'reasonable grounds' to believe that it is necessary to protect themselves or others from serious injury or loss of life. Lethal force can also be used to protect any infrastructure deemed critical by the government and to prevent the escape of a person being detained if there is no other means of preventing that escape (a greater power than that possessed by police). It may also be possible, Head warns, that actions by the ADF could provoke threatening reactions which might then be used to justify lethal force (p. 166).

Sixth, the legal position of ADF members who commit acts of violence against civilians has been buttressed. Criminal law applies to those in uniform but the recent legislation, Head argues, has served to give military personnel greater immunity from prosecution in at least two respects. For one thing, any charge against military personnel under criminal law is to be brought by the Commonwealth Director of Public Prosecutions and not by State or Territory prosecutors. This could give the Commonwealth government greater influence in the decision whether or not to prosecute (p. 116).

More significant, perhaps, is the introduction of a defence of superior orders, albeit highly qualified. Six conditions must be met to uphold this defence against criminal charges, including that the alleged criminal act was done under orders, that the order was not 'manifestly unlawful' and that the action taken was 'reasonable and necessary to give effect to that order'. Despite such requirements, Head suggests, this is a retreat from the Nuremberg principle that superior orders cannot excuse a criminal act, only mitigate the punishment.

A final source of concern is the growing collaboration between the ADF, the police and other civilian security agencies. In response to transnational and multifaceted threats, organisations responsible for domestic security have naturally and understandably moved towards greater cooperation, especially in planning, training and joint exercises. Head sees further evidence for this in the establishment of the Asia Pacific Civil-Military Centre of Excellence in 2008, which aims to promote more effective collaboration between military and civilian agencies in

A final source of concern is the growing collaboration between the ADF, the police and other civilian security agencies.

disaster and conflict management. Though oriented towards overseas operations, the resultant closer ties will facilitate greater cooperation at home. Recent suggestions that the Defence Signals Directorate be permitted to eavesdrop on Australian citizens rather than confining its activities to non-Australians also reinforce this concern.

ABSENCE OF COUNTERWEIGHTS

The trends examined by Head are seen as all the more worrying in that no strong counterweights to this expansion of executive power have emerged. The courts are generally compliant. In the case of *Thomas v Mowbray* in 2007, for example, the High Court sanctioned broad use of ‘defence power’ as a basis for domestic security operations in peacetime, and accepted the right of the Commonwealth to determine what security entails—this was a retreat from the decision in 1951, when the Court prevented the Menzies Government from outlawing the Communist Party on the claimed grounds of national security. The primacy of governments in matters of threats and security makes it extremely difficult, if not impossible, for private citizens to challenge official judgments (p. 179).

Nor does Head put any faith in the parliamentary process. Politicians of both major parties seem to regard the granting of broad powers to the executive government as necessary to the ‘war on terror’. The Howard Government’s amendments to the Defence Act in 2000 and 2006, for example, were supported by the Labor Opposition with little question. In both houses debate was relatively short and only the Greens in the Senate voiced any serious dissent.

The Governor-General as Commander-in-Chief is also unlikely to serve as a strong restraint on the use of the ADF for domestic security purposes. Several Governors-General have emphasised their special relationship with military personnel and might be expected to warn the government against any blatantly unwise use of the ADF. But, by convention, command-in-chief is primarily symbolic and any attempt to argue that it disposes of independent power opens up several cans of worms. Some have suggested the Governor-General, Sir John Kerr, contemplated calling in the armed forces during the 1975 constitutional crisis, but there is no evidence for this. More significant is Kerr’s claim that he did not consult the Queen about the dismissal in order to avoid dragging her into party politics. Does the Governor-General have a similar duty to keep the ADF out of party politics?

“IT CAN’T HAPPEN HERE”

While Head is seriously unwilling to trust governments, others are less suspicious. For one thing, experience since Federation suggests that governments have in practice been reluctant to actually put armed troops on the streets. After 1901 up

to 1929 the Commonwealth turned down six requests from State governments for military assistance against potential civil disorder (mostly related to industrial action) after which the States evidently gave up asking. The only actual call out in Australia was that in 1978, although RAAF fighters have on occasions been authorised to shoot down hijacked aircraft since 2002 during visits by heads of state. In none of these cases was force actually used.

Second, the ADF itself could constrain government action. Head suggests that senior ADF personnel might resist government proposals that are manifestly partisan or clearly ill-advised. He also refers to the unease of ADF personnel involved in the *Tampa* operation and the SIEV-4 'children overboard' affair. Such reactions may give governments pause for thought, but resistance by the military to what they see as unwise use of the ADF can only be taken so far. In the event troops are called out, however, some reassurance that violence will be avoided if at all possible may be found in the good discipline, sound leadership and political sensitivity among ADF personnel.

Third, though resistance to the expanding use of the ADF has been weak so far, any attempt to use armed force against citizens is likely to stimulate growing resistance (use against non-citizens such as 'boat people' is another matter). The weight of the Westminster tradition may be brought to bear. The judiciary, parliament, public opinion and the media may well restrain governments if they seek to go too far in using force for internal security. What, for example, would be the popular reaction in Australia to an event such as the killing of four student demonstrators at Kent State University by the Ohio National Guard in 1970?

Fourth, there is the argument that recent legislation has not so much expanded Commonwealth powers to use the armed forces as defined them more clearly and set out the legal position of service personnel more fully. Head challenges this view (e.g. pp. 16-21), especially with regard to the 2006 amendments to the Defence Act, but must acknowledge that the original constitutional powers were so vague and amorphous they could mean almost anything the government wanted them to mean. (For example, the powers on which the 1978 call out was based were never clearly and explicitly justified.) It is a difficult question whether spelling out ill-defined powers is likely to encourage the use of such powers or actually sets more effective limits on those powers compared with leaving them vague and undefined—a problem that also arises in any attempt to define the 'reserve powers' of the Governor-General.

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Similarly, with regard to the apparently greater immunity from prosecution of soldiers who kill civilians in the course of domestic security operations, it could be argued that the law has simply caught up with contemporary practice and political reality. The vague and untested legal situation of the soldier with a rifle is merely set out in a way that parliament and the public would expect and support. No British soldier serving in Northern Ireland in the 1990s, for example, was ultimately found guilty of murder even though several were prosecuted—albeit in some cases exoneration only came after appeals or re-trials.

...it could be argued that the law has simply caught up with contemporary practice and political reality.

CONCLUSION

Calling Out the Troops examines the issues surrounding the use of the ADF for domestic security in considerable depth, together with other related questions such as the place of military justice in the wider legal system, the legal status of Rules of Engagement, the civil liability of ADF commanders for abuses during a call out, the nature of martial law and the militarisation of police forces. As its title suggests, the book has a strong legal and constitutional focus but it raises crucial questions for government, military and public alike. Though some readers may dislike the author's ingrained suspicion of governments, the arguments are worth examining.

There are some weaknesses in Head's book. The issues are organised by chapters but there is some repetition of material as the same topic is approached from a different angle. The book also delves into arcane legal matters on occasion. Nor is the author always accurate on military matters. The older term 'Military Aid to the Civil Power' is used rather than the contemporary 'Military Aid to Civilian Authorities'. Of more concern is the somewhat ambiguous use of the term 'call out' (and sometimes 'call-out' or 'callout'). It is not always clear whether a reference is to formal call out or simply employment of military personnel for particular tasks. For example, the author states that troops were 'called out in 1974 to guard Darwin's petrol depots from looters after ... Cyclone Tracey' (p. 18), when there was no call out in the legal sense.

The author also claims that 'little academic attention' has been paid to the changing nature of the tasks undertaken by modern militaries (p. 205). There is, however, an extensive literature on what military sociologists call the 'constabulary force' and the 'post-modern military'. In Australia much has been published about the tension between the ADF as a 'constabulary force' engaged in law enforcement, peacekeeping and domestic security and the ADF as a military force that has

warfighting as its defining and unique role. Head is correct, however, in stating that this literature does not feature prominently in public debate (as it does not in his book).

The aim of the book is to promote an informed and ‘much-needed debate’ about the use of the ADF for domestic security (p. 4), though Head concludes by expressing hope for ‘an informed and vigilant opposition’ to current trends (p. 221). Others have made similar pleas, whether from the perspective of civil liberties, the separation of powers or liberal philosophy. Head’s contribution is a useful and important one given its focus on the ADF, the law and the Constitution. *Calling Out the Troops* is a vigorous and valuable examination of some of the problems relating to domestic security in Australia at the present time. The book should be widely read, not least by members of the ADF. They may not be interested in domestic security, but governments faced by domestic insecurity are interested in them.

THE AUTHOR

Dr Hugh Smith lectured in politics and military affairs at the Royal Military College, Duntroon, and then at the Australian Defence Force Academy until his retirement in 2004. He is the author of numerous articles on armed forces and society and a book on the military and political ideas of Clausewitz. His most recent publication (with Nick Jans) on Australia’s reserve forces appears in *Armed Forces & Society*.

BOOK REVIEW

Brian Farrell and Garth Pratten, *Malaya*, Army History Unit, Canberra, 2009.

Reviewed by Mark Johnston

The Second AIF was a magnificent force, but it was on the receiving end of several heavy defeats. Inevitably, these defeats raise some questions about its performance. One of these controversial campaigns, Malaya, is the subject of the latest instalment of the 'Australian Army Campaigns Series'. Brian Farrell and Garth Pratten have written a penetrating and sophisticated analysis of the 8th Division's experience there. They are well qualified to write on the subject. Professor Farrell works at the University of Singapore, and is a leading authority on the campaign. Dr Pratten is a senior lecturer at Sandhurst and author of *Australian Battalion Commanders in the Second World War*, one of the best books on the Second AIF. Both write with the confidence that comes from being experts in the field, and do not hesitate to be critical where they consider it necessary.

That not everyone will be savaged is apparent in the dedication of the book to 'the men of the 8th Australian Division—soldiers, not prisoners'. In the introduction the authors write that in Malaya, 'when given their chance, Australian troops fought with courage and determination'. The problem, as they explain in the 238 pages that follow, is that those troops were often not given a chance. The main theme of the book is that the tragic outcome of the Malayan campaign was a result not of inadequate fighting qualities in the common soldiers but of poor leadership. That failure occurred at every level from the grand strategic to the tactical, from prime ministers and generals to battalion commanders.

The authors are keen to avoid the sort of 'shallow clichés' that characterise much Australian military history, and acknowledge that Australians 'were just as complicit in the eventual defeat in Malaya as any of their alliance partners'.

The exposition of this argument is superb. The first three chapters set the scene, explaining Australian and British reliance on the 'Singapore strategy', how British entanglement in a European war compromised that strategy, and how an

under-strength 8th Division was deployed to Malaya. The Japanese approach to the campaign is explored in fascinating detail, as is the 'driving charge' strategy that brought them victory against a slow-moving opponent with superior numbers but inferior strategy, tactics and morale. This book looks at 'both sides of the hill'.

A substantial portion dissects the famous Australian actions at Gemas, Bakri, Parit Sulong and less well known ones like Mersing, Nithsdale Estate and Ayer Bemban. The exposition of these battles is meticulous. Characteristically, Pratten pulls apart shibboleths about Australian performance. He points out for example, that for all that the Australians repeatedly matched or outfought the Japanese tactically, there were many lost opportunities and all the battles ended in retreat. The division's GOC, Bennett, emerges as a complex but flawed commander, unable to cooperate with coalition partners and prone to errors that compromised otherwise sound plans; for example, in leaving his own flank exposed at Muar when he planned to launch a smashing flank attack on the Japanese. Another salutary theme is the repeated Australian failure to use combined arms effectively.

The emphasis in this book is primarily on analysis rather than mere narrative. It would be difficult to imagine this done better, for the discussion is backed by superb full colour maps, some of them from the war diaries of the units involved, and by many colour photographs of battlefields. Indeed this is a quite beautiful military history book; the reader can open it randomly and expect to find excellent illustrations such as full colour photographs of the main weapons of both sides, organisational tables, maps, and large contemporary black and white photographs from varied sources. Most Australian official photographs from Malaya were taken before operations began and were often scantily captioned, but here the authors have integrated them into the book effectively. Captions are informative throughout. There are also colour drawings of the main aircraft and of typical Japanese and Australian servicemen. The latter two drawings are disappointing, and not up to the standard of the Osprey productions with which they will inevitably be compared.

Ideally there would have been more of the voices and experiences of the individual diggers, rather than an emphasis on actions at the battalion level and above. Nevertheless, there is some vivid writing, and it will be a hard-hearted reader who is not moved by the account of Lieutenant Colonel Anderson's troops in their epic fight at Parit Sulong. That fight ended in a massacre of Australian wounded, and the brutality of the Japanese could have been discussed in more detail. It is also a pity that the wonderful erudition that has produced this book is not demonstrated in footnotes or references, rather than a mere two-page bibliography.

In short, this is an authoritative, nuanced and outstandingly produced book. The frustrating and saddening tale has much to teach later generations of military leaders. It will also leave them wanting to read the promised sequel, on the even more catastrophic and contentious battle for Singapore.

BOOK REVIEW

Gavan Daws, *Prisoners of the Japanese: POWs of World War II in the Pacific*, Scribe, Melbourne, 2008.

Reviewed by John McCarthy

This book was first published in the United States to highly favourable reviews in 1994. Ten years later it was published in Australia. In 2008 it was reprinted. *The New York Times Book Review* considered it 'may be the rawest, harshest book about the war'. The international edition of *The Japan Times Weekly* found it 'sears the reader's memory with unforgettable images'. One cannot fail to agree with this judgment. *The Australian* found it 'indispensable'. The book is largely about survival, and bare survival can well be ugly.

Australians are familiar with the plight and suffering of Australians taken prisoner by the Japanese. The literature is extensive, going back as far as Russell Braddon's *The Naked Island* (1952), which has sold more than a million copies, to at least Cameron Forbes, *Hellfire: Australia, Japan and the Prisoners of War* (2005). Australians are not nearly as well informed, however, on the fate and behaviour of American prisoners taken by the Japanese.

Bare figures might make a point. Although, as Daws points out, accurate numbers are difficult to verify, the International Military Tribunal for the Far East found the death rate of Western prisoners of the Japanese was 27.1 per cent. American prisoners of war had a 37 per cent death rate. That was seven times the number of American prisoners of war who died while held by the Germans and the Italians.

Daws asks and suggests reasons why this happened. Prisoners of war held by the Japanese armed forces were subjected to murder, beatings, summary punishments, brutal treatment, forced labour, horrific medical experimentation, starvation rations, and the deliberate withholding of essential medical supplies.

The horror began for the Americans following the fall of the Philippines and with the Bataan death march. Just to take one incident: the Japanese tied the captives' wrists with wire, and with measured pace killed between three and four hundred men inside two hours. Daws suggests the order for this brutality was given by

General Nara Akira, a graduate of Amherst College and the United States Army's Infantry School. In this instance, the value of such fourth level diplomacy might be questioned.

Daws' account of the of the Bataan death march is indeed 'searing'. As he points out, nothing and nobody stopped the Japanese of all ranks from doing whatever they liked to their surrendered prisoners. The result was 'mass atrocity'. The atrocities continued throughout the war. Australian prisoners of war were massacred by the Japanese at Parit Sulong in southern Malaya on 22 January 1942 and at Banka Island on 16 February 1942 and again at the Tol Plantation following the fall of Rabual in January 1942. The Sandakan death march in 1945 rivalled that of Bataan.

The survivors of such initial horrors had to learn how to stay alive in the fearful prisoner of war environment created by the Japanese. A question remains: why was the American death rate some 10 per cent higher than the average? Daws provides sufficient evidence to support the view that the heightened Australian view of mateship, localised as it was among groups and sub groups—which Daws called 'tribes'—was a contributing factor to their higher rate of survival. On the Burma-Siam railway, for example, the Australian death rate was 29 per cent; the British was 61 per cent. There could well be many explanations for this difference but it might be difficult to escape the suspicion that the Australian prisoners of war had a different collective mentality to some others.

The Americans appear, for example, to have held a much more individualistic and perhaps commercial view of survival. There were rackets, prisoners who preyed on gamblers, those who stole from the sick, and widespread exploitation of the weak. Daws writes of the prisoners of war becoming more and more like prison inmates, exhibiting a 'ratlike cunning'. Nobody could be trusted. There was one particular racket where a prisoner would get rice on interest in return mainly for tobacco. When he no longer could meet the rice interest payments he simply died of starvation. Here the difference in Australian attitude was most apparent. As Daws remarks, although the Australians could cheat and steal with the best of them, the Australians were horrified at the practice. They could not imagine doing men to death by charging interest on something as basic as rice. Australians shared, Americans traded.

Daws has an informative chapter on the war trials and the retribution that followed. The lower grade war criminal, the C Class, after trial was generally swiftly executed. Still, as Daws points out, only one Japanese was sentenced to prison for every fifty prisoners of war who spent three and a half years in a prison camp, and only one Japanese executed for every 250 prisoners of war who had died horrible deaths. Moreover, the longest sentence any Japanese war criminal served was less than thirteen years. Many senior Japanese convicted war criminals after release quickly became active in public life. One became the Japanese Prime Minister in 1957.

All in all, something approaching one in three white prisoners died while in Japanese captivity. Yet the Japanese had not always been so barbaric. Previous Japanese regulations stipulated that prisoners of war were to be treated with good will and never subjected to ill treatment. The Russians taken prisoner during the 1905 war were treated this way. When the Japanese took some small Pacific islands occupied by the Germans, the German prisoners were treated in terms of the Geneva Convention. In 1919, the International Red Cross gave two nations outstanding ratings for their treatment of prisoners of war: the United States and Japan. The question is thus posed: were the actions of the Japanese military from the 1930s through to 1945 a horrific aberration? Hopefully, yes.

Gavan Daws has written a moving and in parts a terrifying book. What happened to the prisoners of war of the Japanese between 1941 and 1945 should never be forgotten.

BOOK REVIEW

Sebastiaan JH Rietjens and Myriame TIB Bollen (eds), *Managing Civil-Military Cooperation*, Ashgate Publishing Limited, Surrey, 2008.

Reviewed by Major Richard Peace

Civil-military cooperation is now a feature of nearly all Australian current operational deployments. While seen by some as a black art, this book attempts to dispel some of the misconceptions that arise on what is civil-military cooperation. This book is a collection of essays based on the Dutch military experiences in civil-military cooperation across a variety of conflicts over the last decade. The book aims to provide a platform for sharing knowledge, experience, research and know-how between military and civilian actors, scientists, consultants, humanitarians, representatives of afflicted people, and policy-makers. In order to achieve this goal the authors, from either a practical or research background, share insights and findings concerning civil-military cooperation during peace missions to promote stabilisation, reconstruction, humanitarian assistance and enduring peace.

The book is structured into four parts, with several essays in each part. Part 1 provides an introduction and external orientation into what is civil-military cooperation. This section provides an interesting discourse on counterinsurgency operations contrasting the Dutch, German and French experiences against the British experiences post Second World War. Other essays examine the approaches to civil-military cooperation from the military and civilian viewpoints, highlighting the different aims and approaches adopted. Part 2 focuses on aspects during the conduct of Humanitarian Operations. The main point made in the various essays in this section is how the military can have an immediate impact at the time of initial disaster, but over time their effectiveness reduces due to an inability to restructure to meet the changing needs of the civilian population. Additionally, in areas of conflict, warring parties are suspicious of any external military forces providing humanitarian aid and can actively work against the provision of aid. Part 3 examines the function of civil-military cooperation during stabilisation and reconstruction operations.

With several examples from Iraq and Afghanistan, the key points raised on why missions fail are due to lack of an overall strategy, a lack of funding, and application of Western standards. Part 4 attempts to introduce measure of performance, with a very good example provided of how to gauge the effectiveness of military actions from a civil viewpoint.

Overall, the book was an easy read with terminology that most military readers would understand (good use of NATO terminology). It was interesting to note the Dutch viewpoint is very similar to the Australian approach, which highlights the interaction occurring in Afghanistan at the moment. The editors have attempted to provide the uninformed reader with sufficient information to enable an understanding of civil-military cooperation. The overall theme is that effective civil-military cooperation requires training and understanding. The book is recommended either for those personnel looking to deploy into a reconstruction or humanitarian aid environment and for those personnel who have previous exposure to civil-military interaction and wish to increase their knowledge.

TITLES TO NOTE

Listed below is a selection from the review copies that have arrived at the *Australian Army Journal*. Reviews for many of these books can be found online in the relevant edition of the *Australian Army Journal* at: http://www.defence.gov.au/army/lwsc/Australian_Army_Journal.asp

- *North Korea on the Brink*, Glyn Ford with Soyoung Kwon, Pluto Press, ISBN 9780745325989, 249 pp. (Distributed in Australia by Palgrave Macmillan)
- *Reporting the War: Freedom of the Press from the American Revolution to the War on Terrorism*, John Byrne Cooke, Palgrave Macmillan, ISBN 9781403975157, 272 pp.
- *The US Military Intervention in Panama: Origins, Planning, and Crisis Management June 1987–December 1989*, Lawrence A Yates, Center of Military History, United States Army, ISBN 9780160794193, 313 pp.
- *Honor and Fidelity: The 65th Infantry in Korea, 1950-1953*, Gilberto N. Villahermosa Brent, Scribe Publications, ISBN 9780160833243, 329 pp.
- *East Asian Multilateralism*, Kent E Calder and Francis Fukuyama (eds), Johns Hopkins University Press, ISBN 9780801888496, 281 pp.
- *‘More than an Ally?’: Contemporary Australia-US Relations*, Maryanne Kelton, Ashgate Publishing, ISBN 9780754673675, 226 pp.
- *Political Islam in Southeast Asia*, Gordon P Means, Lynne Rienner Publishers, ISBN 9781848542594, 306 pp.
- *Political Economy in a Globalized World*, Jorgen Orstrom Moller, World Scientific, ISBN 9789812839107, 442 pp.
- *Terrorism, War and International Law: The Legality of the Use of Force Against Afghanistan in 2001*, Myra Williamson, Ashgate Publishing, ISBN 9780754674030, 277 pp.

TITLES TO NOTE

- *Toward the National Security State: Civil-Military Relations during World War II*, Brian Waddell, Praeger Security International, ISBN 9780275984083, 200 pp.
- *The Army Medical Department 1917-1941*, Mary C Gillett, United States Army Center of Military History, ISBN 9780160839702, 644 pp.
- *Religion, Conflict and Military Intervention*, Rosemary Durward and Lee Marsden (eds), Ashgate, ISBN 9780754678717, 186 pp.
- *Guests of the Emperor: The Secret History of Japan's Mukden POW Camp*, Linda Goetz Holmes, Naval Institute Press, ISBN 9781591143772, 147 pp.
- *From Pacification to Peacebuilding: A Call to Global Transformation*, Diana Francis, Pluto Press, ISBN 9780745330266, 193 pp.
- *World in Crisis: The End of the American Century*, Gabriel Kolko, Pluto Press, ISBN 9780745328652, 182 pp.
- *Bricks, Sand and Marble: US Army Corps of Engineers Construction in the Mediterranean and Middle East*, Robert P Grathwol and Donita M Moorhus, US Army Center of Military History, 672 pp.

Are you interested in writing a book review for the *Australian Army Journal*? Please contact the AAJ at army.journal@defence.gov.au, stating your areas of interest, and we can provide you of a list of the books available (you will be provided with a free copy that is yours to keep).

NOTES FOR CONTRIBUTORS

The editors of the *Australian Army Journal* welcome submissions from any source. Two prime criteria for publication are an article's standard of written English expression and its relevance to the Australian profession of arms. The journal will accept letters, feature articles, review essays, e-mails and contributions to the *Point Blank* and *Insights* sections. As a general guide on length, letters should not exceed 500 words; articles and review essays should be between 3000 and 6000 words; and contributions to the *Insights* section should be no more than 1500 words. The *Insights* section provides authors with the opportunity to write brief, specific essays relating to their own experiences of service. Readers should note that articles written in service essay format are discouraged, since they are not generally suitable for publication.

Each manuscript should be sent by e-mail to <army.journal@defence.gov.au>, or sent printed in duplicate together with a disk to the editors. Articles should be written in Microsoft Word, be one-and-a-half spaced, use 12-point font in Times New Roman and have a 2.5 cm margin on all sides. Submissions should include the author's full name and title; current posting, position or institutional affiliation; full address and contact information (preferably including an e-mail address); and a brief, one-paragraph biographical description.

The *Australian Army Journal* reserves the right to edit contributions in order to meet space limitations and to conform to the journal's style and format.

GENERAL STYLE

All sources cited as evidence should be fully and accurately referenced in endnotes (not footnotes). Books cited should contain the author's name, the title, the publisher, the place of publication, the year and the page reference. This issue of the journal contains examples of the appropriate style for referencing.

When using quotations, the punctuation, capitalisation and spelling of the source document should be followed. Single quotation marks should be used, with double quotation marks only for quotations within quotations. Quotations of thirty words or more should be indented as a separate block of text without quotation marks. Quotations should be cited in support of an argument, not as authoritative statements.

NOTES FOR CONTRIBUTORS

Numbers should be spelt out up to ninety-nine, except in the case of percentages, where arabic numerals should be used (and *per cent* should always be spelt out). All manuscripts should be paginated, and the use of abbreviations, acronyms and jargon kept to a minimum.

BIOGRAPHIES

Authors submitting articles for inclusion in the journal should also attach a current biography. This should be a brief, concise paragraph, whose length should not exceed eight lines. The biography is to include the contributor's full name and title, a brief summary of current or previous service history (if applicable) and details of educational qualifications. Contributors outside the services should identify the institution they represent. Any other information considered relevant—for example, source documentation for those articles reprinted from another publication—should also be included.